

Substance parameters

Substance identification

Name of active substance	hypotheticum	S	Comments
CAS No. active substance		U	

PC-Data

Molecular weight	250 g/mol	S	
Vapour pressure	2.0E+00 Pa	S	at 20°C
Water solubility	1.0E+06 mg/l	S	at 20°C miscible
LogKow	0,2 -	S	
Henry's law constant	0,0005 Pa * m ³ /mol	O	VP/WS-method
Physical state (gaseous/liquid/solid)	liquid/solid	S	
maximal concentration in air (vapour)	205,1493218 mg/m ³	O	at 20 °C, calculated via ideal gas law

Toxicity data

NOAEL (oral)	100 mg/kg/day	S	
NOAEL (inhalativ)	95,57142857 mg/kg/day	S	600 mg/m ³ , 8 hours, rat
NOAEL (dermal)	100 mg/kg/day	S	not investigated, deviation from oral
OEL	600 mg/m ³	S	
TDI	120 mg/kg/day	O	calculated from MAK

Default values

		Reference
General		
Quantity used per m ²	50 ml	TRGS 525 (1998) chapter 7
Thickness of layer of product on skin	0,1 mm	TGD (2003), HERA (2005), Vermeire et al. (1993)
Temperature	20 °C	EUSES 2 (average temperature on the workplace)
Gas constant	8,314 J/(mol*K)	TGD (2003)
Body weight		
Body weight adult	60 kg	TGD (2003)
Body weight children (female, 9 month, median)	8,3 kg	AUH (1995)
Mean body surface areas for adult (men)		
Head (Face)	0,118 m ²	US EPA (1997) cited in TGD (2003)
Trunk	0,569 m ²	US EPA (1997) cited in TGD (2003)
Upper extremities	0,319 m ²	US EPA (1997) cited in TGD (2003)
Arms	0,228 m ²	US EPA (1997) cited in TGD (2003)
Upper arms	0,143 m ²	US EPA (1997) cited in TGD (2003)
Forearms	0,114 m ²	US EPA (1997) cited in TGD (2003)
Hands (fronts and backs)	0,084 m ²	US EPA (1997) cited in TGD (2003)
Fingertips	0,0168 m ²	ITEM (20% of hands)
Lower extremities	0,636 m ²	US EPA (1997) cited in TGD (2003)
Legs	0,506 m ²	US EPA (1997) cited in TGD (2003)
Thighs	0,198 m ²	US EPA (1997) cited in TGD (2003)
Lower legs	0,207 m ²	US EPA (1997) cited in TGD (2003)
Feet	0,112 m ²	US EPA (1997) cited in TGD (2003)
Whole body	1,94 m ²	US EPA (1997) cited in TGD (2003)
Body surface areas for children (< 1 year)		
Whole body children	0,3925 m ²	Biocides Steering Group (1998)
Head children (18.2% of whole body)	0,071435 m ²	US EPA (1997)
Trunk children (35.7% of whole body)	0,1401225 m ²	US EPA (1997)
Arms children (13.7% of whole body)	0,0537725 m ²	US EPA (1997)
Hands children (5.3% of whole body)	0,0208025 m ²	US EPA (1997)
Legs children (20.6% of whole body)	0,080855 m ²	US EPA (1997)
Feet children (6.54% of whole body)	0,0256695 m ²	US EPA (1997)
Respiration rate		
Human (worker)	1,5 m ³ /h	EUSES 2, TGD (2003)
Human (consumer, environment)	0,83333333 m ³ /h	EUSES 2, TGD (2003)
Children (< 1 year, medium activity)	0,24166667 m ³ /h	AUH (1995) cited in TGD (2003)
Absorption		
Bioavailability after inhalation	75 %	Biocides Steering Group (1998)
Bioavailability after dermal exposure	100 %	Biocides Steering Group (1998)
Bioavailability after ingestion	100 %	Biocides Steering Group (1998)
Room volume		
Living room	58 m ³	Bremmer and van Veen (2000) cited in TGD (2003)
Room 1	40 m ³	Bremmer and van Veen (2000) cited in TGD (2003)
Room 2	30 m ³	Bremmer and van Veen (2000) cited in TGD (2003)
Sleeping room	16 m ³	Bremmer and van Veen (2000) cited in TGD (2003)
Kitchen	15 m ³	Bremmer and van Veen (2000) cited in TGD (2003)
Toilet	2,5 m ³	Bremmer and van Veen (2000) cited in TGD (2003)
Bathroom	10 m ³	ConsExpo 4, Bremmer (1998) cited in Biocides Steering Group (1998); Bremmer and van Veen (2000) cited in TGD (2003) = 4 m ³

Chronic exposure to household products: hypotheticalum

Scenario	consumer (adult)			total	bystander (child, 9-12 month)			total
	inhalative	dermal	oral		inhalative	dermal	oral	
		mg/kg/day				mg/kg/day		
Scenario 1: cleaning/disinfection: small surfaces using concentrate	0,83	4,0	accidental	4,8	1,7	1,3	accidental	3,0
Scenario 2: cleaning/disinfection: small surfaces using dilution of liquid concentrate	0,11	0,45	accidental	0,56	0,24	0,028	accidental	0,27
Scenario 3: cleaning/disinfection: surfaces using dilution of liquid concentrate	0,044	0,064	accidental	0,11	0,09	0,0039	accidental	0,10
Scenario 4: cleaning/disinfection: small surfaces or objects using (ready for-use) spray	0,57	5,0	accidental	5,0	1,2	1,3	accidental	2,5
Scenario 5: cleaning/disinfection: shoes using (ready for-use) spray	0,00080	0,031	accidental	0,031	0,0017	0,10	accidental	0,10
Scenario 6: cleaning/disinfection: textiles (e.g. jacket, sofa) using (ready for-use) spray	0,0057	0,27	accidental	0,27	0,012	0,30	accidental	0,31
Scenario 7: cleaning/disinfection: surfaces using spray (dilution of liquid concentrate)	0,40	0,28	accidental	0,67	0,83	0,036	accidental	0,87
Scenario 8: cleaning/disinfection: surfaces using (ready-for-use) spray (incl. wiping of surface)	0,63	5,0	accidental	5,0	1,3	2,5	accidental	3,8
Scenario 9: cleaning/disinfection: surfaces using (ready-for-use) spray (incl. washing-up of surface)	0,16	5,0	accidental	5,0	0,33	1,3	accidental	1,6
Scenario 10: cleaning/disinfection: disinfection wipe (small surfaces)	0,43	3,3	accidental	3,8	0,90	12	accidental	13
Scenario 11: cleaning/disinfection: toilet cleaners (liquid/gel)	0,0031	0,080	accidental	0,083	0,0065	0	accidental	0,0065
Scenario 12: cleaning/disinfection: drain cleaner (liquid)	0,00012	0,0031	accidental	0,0032	0,00025	0	accidental	0,00025
Scenario 13: cleaning/disinfection: swimming pool water treatment	2,5E-06	0,040	3,7E-06	0,040	5,3E-06	5,3E-05	2,7E-05	8,5E-05
Scenario 14: cleaning/disinfection: textiles, machine wash using laundry compact (liquid/gel)	1,2	0,40	accidental	1,6	8,4	0,0066	accidental	8,4
Scenario 14b: cleaning/disinfection: textiles, machine wash using laundry additives (liquid)	0,48	0,16	accidental	0,63	3,4	0,0027	accidental	3,4
Scenario 15: cleaning/disinfection: textiles, hand wash using laundry compact (liquid/gel)	1,7	0,50	accidental	2,2	12	0,0095	accidental	12
Scenario 15b: cleaning/disinfection: textiles, hand wash using laundry additive (liquid)	0,95	0,20	accidental	1,1	6,9	0,0054	accidental	6,9
Scenario 16: textiles, wearing clothes with antimicrobial protection	1,19	0,00	accidental	1,2	7,7	0,0067	accidental	7,7
Scenario 17: cleaning/disinfection: machine dishwashing (tablet, powder)	0,036	0,0067	8,1E-06	0,042	0,07	0,00	0,00	0,07
Scenario 17b: cleaning/disinfection: machine dishwashing (liquid)	0,00035	0,28	8,1E-06	0,28	0,00074	0	5,8E-05	0,00080
Scenario 17c: cleaning/disinfection: hand dishwashing (liquid concentrate)	4,9E-05	0,85	0,00050	0,85	0,00010	0	0,0036	0,0037
Scenario 18: personal care: whole body rinse-off	0,083	2,0	accidental	2,0	0,17	14	accidental	14
Scenario 19: personal care: whole body leave-on	2,5	2,5	accidental	2,5	18	18	accidental	18
Scenario 20: personal care: head leave-on	1,7	1,7	accidental	1,7	12	2,5	accidental	12
Scenario 21: personal care: hands leave-on	0,57	0,57	accidental	0,57	4,1	0	accidental	4,1

Chronic exposure to household products: hypotheticalum

Scenario	consumer (adult)				bystander (child, 9-12 month)			
	inhalative	dermal	oral	total	inhalative	dermal	oral	total
		mg/kg/day				mg/kg/day		
Scenario 22: personal care: (ready for-use) spray (deodorant spray, hair spray)	1,7	1,7	accidental	1,7	12	2,5	accidental	12
Scenario 23: personal care: wet tissues	51	33	accidental	66	65	238	accidental	302
Scenario 24: personal care: hands/feet using (ready for-use) spray	0,0048	0,23	accidental	0,23	0,01	0	accidental	0,29
Scenario 25: personal care: toothpaste	negligible	negligible	0,027	0,027	negligible	negligible	1,3	1,3
Scenario 25b: personal care: mouth wash	negligible	negligible	0,83	0,83	negligible	negligible	6,0	6,0
Scenario 25c: personal care: lip stick	negligible	negligible	0,010	0,010	negligible	negligible	0,072	0,072
Scenario 26: home improvement: painting, latex paint	0,35	0,094	accidental	0,45	0,74	0,22	accidental	0,95
Scenario 26b: home improvement: painting, latex paint + anti mould additive	0,066	0,0039	accidental	0,069	0,14	0,0036	accidental	0,14
Scenario 27: home improvement: varnish (water-based)	0,35	0,039	accidental	0,39	0,74	0,025	accidental	0,76
Scenario 28: home improvement: wallpaper paste anti mould additive	0,20	0,0062	accidental	0,21	0,42	0,0090	accidental	0,43
Scenario 29: home improvement: (ready-for-use) floor adhesive	0,35	0,045	accidental	0,40	0,74	0,031	accidental	0,77
Scenario 30: handicrafts: playing with finger paints	0,22	0,30	accidental	0,52	0,47	3,8	accidental	4,2
Scenario 31: repellent: liquid	0,17	0,17	accidental	0,17	0,42	0,42	accidental	0,42
Scenario 32: repellent, spray	0,17	0,17	accidental	0,17	0,42	0,42	accidental	0,42
Scenario 33: insecticide: spray, air space	0,012	0,29	accidental	0,29	0,026	2,1	accidental	2,1
Scenario 33b: insecticide: spray, targetted spot	0,47	0,61	accidental	1,1	0,99	1,8	accidental	2,8
Scenario 33c: insecticide: spray, crack and crevice	0,31	0,52	accidental	0,83	0,66	1,4	accidental	2,1
Scenario 34: insecticide: liquid, crack and crevice	0,015	0,033	accidental	0,033	0,030	5,0E-05	accidental	0,031
Scenario 35: insecticide: dilution of powder, crack and crevice	0,39	0,012	accidental	0,40	0,82	0,0018	accidental	0,83
Scenario 35b: insecticide: powder, crack and crevice	0,093	0,00038	accidental	0,093	0,19	0,0014	accidental	0,20
Scenario 36: insecticide: evaporator, indoor	0,0027	0,00007	accidental	0,0028	0,0058	0	accidental	0,0058
Scenario 36b: insecticide: evaporator, wardrobe	0,00018	1,8E-07	accidental	0,00018	0,0013	0	accidental	0,0013
Scenario 36c: insecticide: evaporator, dustbin	0,00027	2,7E-06	accidental	0,00027	0,0018	0	accidental	0,0018
Scenario 37: insecticide: strip	0,00027	2,7E-05	accidental	0,00027	0,0020	0	accidental	0,0020
Scenario 38: insecticide: trap	0,0079	0	accidental	0,0079	0,053	0	accidental	0,053
Sum	69	70	0,87	114	163	304	7,4	451

Chronic exposure to household products: hypotheticalum

Scenario	consumer (adult)				bystander (child, 9-12 month)			
	inhalative	dermal	oral	total	inhalative	dermal	oral	total
		MOE				MOE		
Scenario 1: cleaning/disinfection: small surfaces using concentrate	115	25	accidental	21	55	80	accidental	33
Scenario 2: cleaning/disinfection: small surfaces using dilution of liquid concentrate	834	223	accidental	178	398	3627	accidental	373
Scenario 3: cleaning/disinfection: surfaces using dilution of liquid concentrate	2195	1566	accidental	931	1047	25460	accidental	1051
Scenario 4: cleaning/disinfection: small surfaces or objects using (ready for-use) spray	167	20	accidental	20	80	80	accidental	41
Scenario 5: cleaning/disinfection: shoes using (ready for-use) spray	119601	3259	accidental	3259	57051	983	accidental	968
Scenario 6: cleaning/disinfection: textiles (e.g. jacket, sofa) using (ready for-use) spray	16744	365	accidental	365	7987	339	accidental	325
Scenario 7: cleaning/disinfection: surfaces using spray (dilution of liquid concentrate)	241	362	accidental	149	115	2801	accidental	116
Scenario 8: cleaning/disinfection: surfaces using (ready-for-use) spray (incl. wiping of surface)	153	20	accidental	20	73	40	accidental	26
Scenario 9: cleaning/disinfection: surfaces using (ready-for-use) spray (incl. washing-up of surface)	612	20	accidental	20	292	80	accidental	63
Scenario 10: cleaning/disinfection: disinfection wipe (small surfaces)	224	30	accidental	27	107	8	accidental	8
Scenario 11: cleaning/disinfection: toilet cleaners (liquid/gel)	30816	1253	accidental	1207	14699	#DIV/0!	accidental	15381
Scenario 12: cleaning/disinfection: drain cleaner (liquid)	805588	32589	accidental	31376	384275	#DIV/0!	accidental	402081
Scenario 13: cleaning/disinfection: swimming pool water treatment	37586292	2505	27000000	2504	17929093	1903185	3735000	1181366
Scenario 14: cleaning/disinfection: textiles, machine wash using laundry compact (liquid/gel)	82	248	accidental	64	11	15105	accidental	12
Scenario 14b: cleaning/disinfection: textiles, machine wash using laundry additives (liquid)	201	620	accidental	158	28	37108	accidental	29
Scenario 15: cleaning/disinfection: textiles, hand wash using laundry compact (liquid/gel)	57	200	accidental	46	8	10573	accidental	8
Scenario 15b: cleaning/disinfection: textiles, hand wash using laundry additive (liquid)	101	498	accidental	87	14	18554	accidental	15
Scenario 16: textiles, wearing clothes with antimicrobial protection	81	21709	accidental	84	12	14843	accidental	13
Scenario 17: cleaning/disinfection: machine dishwashing (tablet, powder)	2683	15000	12412121	2365	1280	#DIV/0!	1717010	1338
Scenario 17b: cleaning/disinfection: machine dishwashing (liquid)	269713	357	12412121	357	128656	#DIV/0!	1717010	124831
Scenario 17c: cleaning/disinfection: hand dishwashing (liquid concentrate)	1944764	118	202020	118	927675	#DIV/0!	27946	27164
Scenario 18: personal care: whole body rinse-off	1147	50	accidental	50	547	7	accidental	7
Scenario 19: personal care: whole body leave-on	38	40	accidental	40	5	6	accidental	6
Scenario 20: personal care: head leave-on	57	60	accidental	60	8	40	accidental	8
Scenario 21: personal care: hands leave-on	169	176	accidental	176	23	#DIV/0!	accidental	24

Chronic exposure to household products: hypotheticalum

Scenario	consumer (adult)				bystander (child, 9-12 month)			
	inhalative	dermal	oral	total	inhalative	dermal	oral	total
	MOE				MOE			
Scenario 22: personal care: (ready for-use) spray (deo spray, hair spray)	57	60	accidental	60	8	40	accidental	8
Scenario 23: personal care: wet tissues	2	3	accidental	2	1	0	accidental	0
Scenario 24: personal care: hands/feet using (ready for-use) spray	19933	435	accidental	435	9508	#DIV/0!	accidental	343
Scenario 25: personal care: toothpaste	negligible	negligible	3750	3750	negligible	negligible	78	78
Scenario 25b: personal care: mouth wash	negligible	negligible	120	120	negligible	negligible	17	17
Scenario 25c: personal care: lip stick	negligible	negligible	10000	10000	negligible	negligible	1383	1383
Scenario 26: home improvement: painting, latex paint	272	1067	accidental	225	130	461	accidental	105
Scenario 26b: home improvement: painting, latex paint + anti mould additive	1458	25886	accidental	1441	696	27665	accidental	709
Scenario 27: home improvement: varnish (water-based)	272	2556	accidental	256	130	4045	accidental	131
Scenario 28: home improvement: wallpaper paste anti mould additive	477	16114	accidental	484	227	11066	accidental	233
Scenario 29: home improvement: (ready-for-use) floor adhesive	272	2225	accidental	252	130	3236	accidental	130
Scenario 30: handicrafts: playing with finger paints	429	334	accidental	192	205	27	accidental	24
Scenario 31: repellent: liquid	554	579	accidental	579	230	240	accidental	240
Scenario 32: repellent, spray	554	579	accidental	579	230	240	accidental	240
Scenario 33: insecticide: spray, air space	7708	348	accidental	348	3677	48	accidental	48
Scenario 33b: insecticide: spray, targetted spot	203	163	accidental	92	97	55	accidental	36
Scenario 33c: insecticide: spray, crack and crevice	305	193	accidental	120	145	70	accidental	48
Scenario 34: insecticide: liquid, crack and crevice	6571	3008	accidental	3008	3135	2000433	accidental	3275
Scenario 35: insecticide: dilution of powder, crack and crevice	243	8279	accidental	247	116	56012	accidental	121
Scenario 35b: insecticide: powder, crack and crevice	1028	263221	accidental	1071	490	72825	accidental	509
Scenario 36: insecticide: evaporator, indoor	34793	1460000	accidental	35520	16597	#DIV/0!	accidental	17366
Scenario 36b: insecticide: evaporator, wardrobe	523254	547500000	accidental	547500	72383	#DIV/0!	accidental	75738
Scenario 36c: insecticide: evaporator, dustbin	348836	36500000	accidental	365000	52346	#DIV/0!	accidental	54772
Scenario 37: insecticide: strip	348836	3650000	accidental	365000	48256	#DIV/0!	accidental	50492
Scenario 38: insecticide: trap	12029	#DIV/0!	accidental	12586	1799	#DIV/0!	accidental	1883
Sum	1	1	115	1	1	0	14	0

Scenario 1: cleaning/disinfection: small surfaces using concentrate

Scenario description

Name of product	disinfection cleaner	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product (concentrate)	1 %	S	Frame formulation
Concentration of active substance in product (concentrate) (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Task B: cleaning: dipping into concentrate, wiping/mopping of surface

Number of tasks per year	365 tasks/yr	S	once per day, max [AISE (2002) cited in TGD (2003)]
Duration of task	20 min/task	S	max [AISE (2002) cited in TGD (2003)]
Surface (treated per task)	0,8 m ² /task	S	
Volume of product used per m ²	50 ml/m ²	D	
Volume of product used per task	40 ml/task	O	
Quantity of product used per task	40 g/task	O	max 40 g [AISE (2002) cited in TGD (2003)]
Quantity of active substance used per task	400 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	10 m ³	S	Bathroom
Model dermal exposure	Direct dermal contact		
Contact area between product (concentrate) and skin	0,198 m ²	S	Forearms, Hands
Model oral exposure	accidental		

Post application phase

Task C: residence time

Number of tasks per year	365 tasks/yr	S	once per day, max [AISE (2002) cited in TGD (2003)]
Duration of task	100 min/task	S	ConsExpo: 120 min total inhalative exposure
Quantity of active substance used per task	400 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	10 m ³	S	Bathroom
Model dermal exposure	Direct dermal contact		
Contact area between product (concentrate) and skin	0,042 m ²	S	50% Hands
Contact area between product (concentrate) and skin children	0,01040125 m ²	S	50% Hands Children
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		6,66666667 mg/kg bw		48,19277108 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		6,66666667 mg/kg bw/day		48,19277108 mg/kg bw/day
Highest potential concentration in air		40 mg/m ³		40 mg/m ³
Inhalation acute		0,83333333 mg/kg bw		1,746987952 mg/kg bw
Inhalation chronic		0,83333333 mg/kg bw/day		1,746987952 mg/kg bw/day
Dermal acute		4 mg/kg bw		1,253162651 mg/kg bw
Dermal chronic		4 mg/kg bw/day		1,253162651 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		4,83333333 mg/kg bw		3,000150602 mg/kg bw
Daily intake chronic		4,83333333 mg/kg bw/day		3,000150602 mg/kg bw/day

Scenario 1: cleaning/disinfection: small surfaces using concentrate**Results / Output**

Mixing & Loading		Task A: not applicable			
Application		Task B: cleaning: dipping into concentrate, wiping/mopping of surface			
	Primary exposure	User	Secondary exposure	Bystander	
Inhalation					
Concentration of potential exposure		40 mg/m ³	O	40 mg/m ³	O
Inhalation		0,55555556 mg/min	O	0,16111111 mg/min	O
Absorption per task		8,33333333 mg/task	O	2,41666667 mg/task	O
Exposure per task / Acute Dose		0,13888889 mg/kg bw	O	0,291164659 mg/kg bw	O
Exposure per day / Chronic Dose		0,13888889 mg/kg bw/day	O	0,291164659 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,198 m ²	S		
Volume of contact		19,8 ml	O		
Quantity of contact (mg)		198 mg	O		
Dermal load (mg/cm ²)		0,1 mg/cm ²	O		
Absorption (mg)		198 mg	O		
Exposure per task / Acute Dose		3,3 mg/kg bw	O no		S
Exposure per day / Chronic Dose		3,3 mg/kg bw/day	O no		S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		3,43888889 mg/kg bw	O	0,291164659 mg/kg bw	O
Exposure per day / Chronic Dose		3,43888889 mg/kg bw/day	O	0,291164659 mg/kg bw/day	O
Post application phase		Task C: residence time			
	Primary exposure	User	Secondary exposure	Bystander	
Inhalation					
Concentration of potential exposure		40 mg/m ³	O	40 mg/m ³	O
Inhalation		0,55555556 mg/min	O	0,16111111 mg/min	O
Absorption per task		41,66666667 mg/task	O	12,08333333 mg/task	O
Exposure per task / Acute Dose		0,69444444 mg/kg bw	O	1,455823293 mg/kg bw	O
Exposure per day / Chronic Dose		0,69444444 mg/kg bw/day	O	1,455823293 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,042 m ²	S	0,01040125 m ²	S
Volume of contact		4,2 ml	O	1,040125 ml	O
Quantity of contact (mg)		42 mg	O	10,40125 mg	O
Dermal load (mg/cm ²)		0,1 mg/cm ²	O	0,1 mg/cm ²	O
Absorption (mg)		42 mg	O	10,40125 mg	O
Exposure per task / Acute Dose		0,7 mg/kg bw	O	1,253162651 mg/kg bw	O
Exposure per day / Chronic Dose		0,7 mg/kg bw/day	O	1,253162651 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		1,39444444 mg/kg bw	O	2,708985944 mg/kg bw	O
Exposure per day / Chronic Dose		1,39444444 mg/kg bw/day	O	2,708985944 mg/kg bw/day	O
Disposal		Task D: not applicable			

Scenario 2: cleaning/disinfection: small surfaces using dilution of liquid concentrate

Scenario description

			Comments
Name of product	disinfection cleaner	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product (concentrate)	1 %	S	Frame Formulation
Concentration of active substance in product (concentrate) (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: simple dilution with water in bucket			
Number of tasks per year	365 tasks/yr	S	max once a day [AISE (2002) cited in TGD (2003)]
Duration of task	1,333333333 min/task	S	80 sec. [TNsG 2002 p. 252 mixing for spray]
Volume of product used per task	44 ml/task	S	
Quantity of water used per task	2 L/task	S	
Quantity of product used per task	44 g/task	O	max 110 g /5 L wash water volume [AISE (2002) cited in TGD (2003)]
Quantity of active substance used per task	440 mg/task	O	
Concentration of active substance in ready-for-use solution	220 mg/l	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between ready-for-use solution and air, limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
REM Evaporation from mixture, release area concentrate	0,002 m ²	S	bottle diameter 5 cm [TNsG 2002 p. 252]
REM Evaporation from mixture, release area ready-for-use solution	0,070685835 m ²	S	bucket diameter 30 cm
Model dermal exposure	Direct dermal contact		
Contact area between product (concentrate) and skin	0,0168 m ²	S	Fingertips
Model oral exposure	accidental		

Application

Task B: cleaning: dipping into ready-for-use solution, wiping/mopping of surface			
Number of tasks per year	365 tasks/yr	S	max once a day [AISE (2002) cited in TGD (2003)]
Duration of task	20 min/task	S	max [AISE (2002) cited in TGD (2003)]
Surface (treated per task)	5 m ² /task	S	
Quantity of ready-for-use solution used per m ²	50 ml/m ²	D	
Quantity of ready-for-use solution used per task	250 ml/task	O	
Concentration of active substance in ready-for-use solution	220 mg/l	O	
Quantity of active substance used per task	55 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	10 m ³	S	Bathroom
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use solution and skin	0,2187 m ²	S	Forearms, Hands, 10% Lower legs
Model oral exposure	accidental		

Post application phase

Task C: residence time			
Number of tasks per year	365 tasks/yr	S	max once a day [AISE (2002) cited in TGD (2003)]
Duration of task	100 min/task	S	ConsExpo: 120 min total inhalative exposure
Concentration of active substance in ready-for-use solution	220 mg/l	O	
Quantity of active substance used per task	55 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	10 m ³	S	Bathroom
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use solution and skin	0,042 m ²	S	50% Hands
Contact area between ready-for-use solution and skin children	0,01040125 m ²	S	50% Hands Children
Model oral exposure	accidental		

Disposal

Task D: excessive ready-for-use solution is disposed to the main drainage			
Number of tasks per year	365 tasks/yr	S	max once a day [AISE (2002) cited in TGD (2003)]
Duration of task	1 min/task	S	
Volume of ready-for-use solution disposed per task	1,75 L/task	S	
Concentration of active substance in ready-for-use solution	220 mg/l	O	
Quantity of active substance disposed per task	385 mg/task	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between ready-for-use solution and air, limited to vapour pressure)		
Room volume	1 m ³	S	
REM Evaporation from mixture, release area ready-for-use solution	0,070685835 m ²	S	bucket diameter 30 cm
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use solution and skin	0,198 m ²	S	Hands, Forearms
Model oral exposure	accidental		

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		7,333333333 mg/kg bw		53,01204819 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		7,333333333 mg/kg bw/day		53,01204819 mg/kg bw/day
Highest potential concentration in air		5,5 mg/m ³		5,5 mg/m ³
Inhalation acute		0,114601614 mg/kg bw		0,240249167 mg/kg bw
Inhalation chronic		0,114601614 mg/kg bw/day		0,240249167 mg/kg bw/day
Dermal acute		0,44819 mg/kg bw		0,027569578 mg/kg bw
Dermal chronic		0,44819 mg/kg bw/day		0,027569578 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		0,562791614 mg/kg bw		0,267818746 mg/kg bw
Daily intake chronic		0,562791614 mg/kg bw/day		0,267818746 mg/kg bw/day

Scenario 2: cleaning/disinfection: small surfaces using dilution of liquid concentrate

Results / Output

Mixing & Loading					
Task A: simple dilution with water in bucket					
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	0,045128222 mg/m ³	O		0,045128222 mg/m ³	O
Inhalation	0,000626781 mg/min	O		0,000181766 mg/min	O
Absorption per task	0,000626781 mg/task	O		0,000181766 mg/task	O
Exposure per task / Acute Dose	1,04463E-05 mg/kg bw	O		2,18996E-05 mg/kg bw	O
Exposure per day / Chronic Dose	1,04463E-05 mg/kg bw/day	O		2,18996E-05 mg/kg bw/day	O
Dermal					
Contact area between product and skin	0,0168 m ²	S			
Volume of contact	1,68 ml	O			
Quantity of contact (mg)	16,8 mg	O			
Dermal load (mg/cm ²)	0,1 mg/cm ²	O			
Absorption (mg)	16,8 mg	O			
Exposure per task / Acute Dose	0,28 mg/kg bw	O	no		S
Exposure per day / Chronic Dose	0,28 mg/kg bw/day	O	no		S
Oral					
Exposure / Dose	accidental	S		accidental	S
Intake					
Exposure per task / Acute Dose	0,280010446 mg/kg bw	O		2,18996E-05 mg/kg bw	O
Exposure per day / Chronic Dose	0,280010446 mg/kg bw/day	O		2,18996E-05 mg/kg bw/day	O

Application					
Task B: cleaning: dipping into ready-for-use solution, wiping/mopping of surface					
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	5,5 mg/m ³	O		5,5 mg/m ³	O
Inhalation	0,076388889 mg/min	O		0,022152778 mg/min	O
Absorption per task	1,145833333 mg/task	O		0,332291667 mg/task	O
Exposure per task / Acute Dose	0,019097222 mg/kg bw	O		0,040035141 mg/kg bw	O
Exposure per day / Chronic Dose	0,019097222 mg/kg bw/day	O		0,040035141 mg/kg bw/day	O
Dermal					
Contact area between ready-for-use solution and skin	0,2187 m ²	S			
Volume of contact	21,87 ml	O			
Quantity of contact (mg)	4,8114 mg	O			
Dermal load (mg/cm ²)	0,0022 mg/cm ²	O			
Absorption (mg)	4,8114 mg	O			
Exposure per task / Acute Dose	0,08019 mg/kg bw	O	no		S
Exposure per day / Chronic Dose	0,08019 mg/kg bw/day	O	no		S
Oral					
Exposure / Dose	accidental	S		accidental	S
Intake					
Exposure per task / Acute Dose	0,099287222 mg/kg bw	O		0,040035141 mg/kg bw	O
Exposure per day / Chronic Dose	0,099287222 mg/kg bw/day	O		0,040035141 mg/kg bw/day	O

Post application phase					
Task C: residence time					
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	5,5 mg/m ³	O		5,5 mg/m ³	O
Inhalation	0,076388889 mg/min	O		0,022152778 mg/min	O
Absorption per task	5,729166667 mg/task	O		1,661458333 mg/task	O
Exposure per task / Acute Dose	0,095486111 mg/kg bw	O		0,200175703 mg/kg bw	O
Exposure per day / Chronic Dose	0,095486111 mg/kg bw/day	O		0,200175703 mg/kg bw/day	O
Dermal					
Contact area between ready-for-use solution and skin	0,042 m ²	S		0,01040125 m ²	S
Volume of contact	4,2 ml	O		1,040125 ml	O
Quantity of contact (mg)	0,924 mg	O		0,2288275 mg	O
Dermal load (mg/cm ²)	0,0022 mg/cm ²	O		0,0022 mg/cm ²	O
Absorption (mg)	0,924 mg	O		0,2288275 mg	O
Exposure per task / Acute Dose	0,0154 mg/kg bw	O		0,027569578 mg/kg bw	O
Exposure per day / Chronic Dose	0,0154 mg/kg bw/day	O		0,027569578 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental	S		accidental	S
Intake					
Exposure per task / Acute Dose	0,110886111 mg/kg bw	O		0,227745281 mg/kg bw	O
Exposure per day / Chronic Dose	0,110886111 mg/kg bw/day	O		0,227745281 mg/kg bw/day	O

Disposal					
Task D: excessive ready-for-use solution is disposed to the main drainage					
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	0,045127561 mg/m ³	O		0,045127561 mg/m ³	O
Inhalation	0,000626772 mg/min	O		0,000181764 mg/min	O
Absorption per task	0,000470079 mg/task	O		0,000136323 mg/task	O
Exposure per task / Acute Dose	7,83465E-06 mg/kg bw	O		1,64244E-05 mg/kg bw	O
Exposure per day / Chronic Dose	7,83465E-06 mg/kg bw/day	O		1,64244E-05 mg/kg bw/day	O
Dermal					
Contact area between ready-for-use solution and skin	0,198 m ²	S			
Volume of contact	19,8 ml	O			
Quantity of contact (mg)	4,356 mg	O			
Dermal load (mg/cm ²)	0,0022 mg/cm ²	O			
Absorption (mg)	4,356 mg	O			
Exposure per task / Acute Dose	0,0726 mg/kg bw	O	no		S
Exposure per day / Chronic Dose	0,0726 mg/kg bw/day	O	no		S
Oral					
Exposure / Dose	accidental	S		accidental	S
Intake					
Exposure per task / Acute Dose	0,072607835 mg/kg bw	O		1,64244E-05 mg/kg bw	O
Exposure per day / Chronic Dose	0,072607835 mg/kg bw/day	O		1,64244E-05 mg/kg bw/day	O

Scenario 3: cleaning/disinfection: surfaces using dilution of liquid concentrate

Scenario description

			Comments
Name of product	disinfection cleaner, floor cleaner	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product (concentrate)	1 %	S	Frame Formulation
Concentration of active substance in product (concentrate) (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

	Task A: simple dilution with water in bucket		
Number of tasks per year	52 tasks/yr	S	
Duration of task	1,333333333 min/task	S	80 sec. [TNsG 2002 p. 252 spray]
Volume of product used per task	220 ml/task	S	
Quantity of water used per task	10 L/task	S	
Quantity of product used per task	220 g/task	O	max 110 g /5 L wash water volume [AISE (2002) cited in TGD (2002)]
Quantity of active substance used per task	2200 mg/task	S	
Concentration of active substance in ready-for-use solution	220 mg/l	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between ready-for-use solution and air, limited to vapour pressure)		
Room volume	1 m ³	S	
REM Evaporation from mixture, release area concentrate	0,002 m ²	S	bottle diameter 5 cm [TNsG 2002 p. 252]
REM Evaporation from mixture, release area ready-for-use solution	0,070685835 m ²	S	bucket diameter 30 cm
Model dermal exposure	Direct dermal contact		
Contact area between Product (concentrate) and skin	0,0168 m ²	S	Fingertips
Model oral exposure	accidental		

Application

	Task B: cleaning: dipping into ready-for-use solution, wiping/mopping of surface		
Number of tasks per year	52 tasks/yr	S	
Duration of task	20 min/task	S	
Surface (treated per task)	20 m ² /task	S	
Quantity of ready-for-use solution used per m ²	50 ml/m ²	D	
Quantity of ready-for-use solution used per task	1000 ml/task	O	
Concentration of active substance in ready-for-use solution	220 mg/l	O	
Quantity of active substance used per task	220 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	15 m ³	S	Kitchen
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use solution and skin	0,2187 m ²	S	Forearms, Hands, 10% Lower legs
Model oral exposure	accidental		

Post application phase

	Task C: residence time		
Number of tasks per year	52 tasks/yr	S	
Duration of task	100 min/task	S	
Concentration of active substance in ready-for-use solution	220 mg/l	O	
Quantity of active substance used per task	220 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	15 m ³	S	Kitchen
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use solution and skin	0,042 m ²	S	50% Hands
Contact area between ready-for-use solution and skin children	0,01040125 m ²	S	50% Hands Children
Model oral exposure	accidental		

Disposal

	Task D: excessive ready-for-use solution is disposed to the main drainage		
Number of tasks per year	52 tasks/yr	S	
Duration of task	1 min/task	S	
Volume of ready-for-use solution disposed per task	9 L/task	S	
Concentration of active substance in ready-for-use solution	220 mg/l	O	
Quantity of active substance disposed per task	1980 mg/task	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between ready-for-use solution and air, limited to vapour pressure)		
Room volume	1 m ³	S	
REM Evaporation from mixture, release area ready-for-use solution	0,070685835 m ²	S	bucket diameter 30 cm
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use solution and skin	0,198 m ²	S	Hands, Forearms
Model oral exposure	accidental		

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		36,6666667 mg/kg bw		265,060241 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		5,223744292 mg/kg bw/day		37,76200693 mg/kg bw/day
Highest potential concentration in air		14,66666667 mg/m ³		14,66666667 mg/m ³
Inhalation acute		0,305573838 mg/kg bw		0,640600576 mg/kg bw
Inhalation chronic		0,043533807 mg/kg bw/day		0,091263644 mg/kg bw/day
Dermal acute		0,44819 mg/kg bw		0,027569578 mg/kg bw
Dermal chronic		0,063851726 mg/kg bw/day		0,003927721 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		0,753763838 mg/kg bw		0,668170155 mg/kg bw
Daily intake chronic		0,107385533 mg/kg bw/day		0,095191365 mg/kg bw/day

Scenario 3: cleaning/disinfection: surfaces using dilution of liquid concentrate**Results / Output**

Mixing & Loading		Task A: simple dilution with water in bucket			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		0,045131925 mg/m ³	O	0,045131925 mg/m ³	O
Inhalation		0,000626832 mg/min	O	0,000181781 mg/min	O
Absorption per task		0,000626832 mg/task	O	0,000181781 mg/task	O
Exposure per task / Acute Dose		1,04472E-05 mg/kg bw	O	2,19014E-05 mg/kg bw	O
Exposure per day / Chronic Dose		1,48837E-06 mg/kg bw/day	O	3,1202E-06 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,0168 m ²	S		
Volume of contact		1,68 ml	O		
Quantity of contact (mg)		16,8 mg	O		
Dermal load (mg/cm ²)		0,1 mg/cm ²	O		
Absorption (mg)		16,8 mg	O		
Exposure per task / Acute Dose		0,28 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		0,039890411 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,280010447 mg/kg bw	O	2,19014E-05 mg/kg bw	O
Exposure per day / Chronic Dose		0,039891899 mg/kg bw/day	O	3,1202E-06 mg/kg bw/day	O

Application		Task B: cleaning: dipping into ready-for-use solution, wiping/mopping of surface			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		14,66666667 mg/m ³	O	14,66666667 mg/m ³	O
Inhalation		0,203703704 mg/min	O	0,059074074 mg/min	O
Absorption per task		3,055555556 mg/task	O	0,886111111 mg/task	O
Exposure per task / Acute Dose		0,050925926 mg/kg bw	O	0,106760375 mg/kg bw	O
Exposure per day / Chronic Dose		0,0072552 mg/kg bw/day	O	0,015209697 mg/kg bw/day	O
Dermal					
Contact area between ready-for-use solution and skin		0,2187 m ²	S		
Volume of contact		21,87 ml	O		
Quantity of contact (mg)		4,8114 mg	O		
Dermal load (mg/cm ²)		0,0022 mg/cm ²	O		
Absorption (mg)		4,8114 mg	O		
Exposure per task / Acute Dose		0,08019 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		0,011424329 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,131115926 mg/kg bw	O	0,106760375 mg/kg bw	O
Exposure per day / Chronic Dose		0,018679529 mg/kg bw/day	O	0,015209697 mg/kg bw/day	O

Post application phase		Task C: residence time			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		14,66666667 mg/m ³	O	14,66666667 mg/m ³	O
Inhalation		0,203703704 mg/min	O	0,059074074 mg/min	O
Absorption per task		15,27777778 mg/task	O	4,430555556 mg/task	O
Exposure per task / Acute Dose		0,25462963 mg/kg bw	O	0,533801874 mg/kg bw	O
Exposure per day / Chronic Dose		0,036276002 mg/kg bw/day	O	0,076048486 mg/kg bw/day	O
Dermal					
Contact area between ready-for-use solution and skin		0,042 m ²	S	0,01040125 m ²	S
Volume of contact		4,2 ml	O	1,040125 ml	O
Quantity of contact (mg)		0,924 mg	O	0,2288275 mg	O
Dermal load (mg/cm ²)		0,0022 mg/cm ²	O	0,0022 mg/cm ²	O
Absorption (mg)		0,924 mg	O	0,2288275 mg	O
Exposure per task / Acute Dose		0,0154 mg/kg bw	O	0,027569578 mg/kg bw	O
Exposure per day / Chronic Dose		0,002193973 mg/kg bw/day	O	0,003927721 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,27002963 mg/kg bw	O	0,561371452 mg/kg bw	O
Exposure per day / Chronic Dose		0,038469975 mg/kg bw/day	O	0,079976207 mg/kg bw/day	O

Disposal		Task D: excessive ready-for-use solution is disposed to the main drainage			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		0,045131822 mg/m ³	O	0,045131822 mg/m ³	O
Inhalation		0,000626831 mg/min	O	0,000181781 mg/min	O
Absorption per task		0,000470123 mg/task	O	0,000136336 mg/task	O
Exposure per task / Acute Dose		7,83539E-06 mg/kg bw	O	1,6426E-05 mg/kg bw	O
Exposure per day / Chronic Dose		1,11627E-06 mg/kg bw/day	O	2,34014E-06 mg/kg bw/day	O
Dermal					
Contact area between ready-for-use solution and skin		0,198 m ²	S		
Volume of contact		19,8 ml	O		
Quantity of contact (mg)		4,356 mg	O		
Dermal load (mg/cm ²)		0,0022 mg/cm ²	O		
Absorption (mg)		4,356 mg	O		
Exposure per task / Acute Dose		0,0726 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		0,010343014 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,072607835 mg/kg bw	O	1,6426E-05 mg/kg bw	O
Exposure per day / Chronic Dose		0,01034413 mg/kg bw/day	O	2,34014E-06 mg/kg bw/day	O

Scenario 4: cleaning/disinfection: small surfaces or objects using (ready for-use) spray**Scenario description**

			Comments
Name of product	disinfection spray	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Task B: spraying onto surface + deposit time

Number of tasks per year	365 tasks/yr	S	once per day, max [AISE (2002) cited in TGD (2003)]
Duration of task	10 min/task	S	max [AISE (2002) cited in TGD (2003)], ConsExpo: spray duration 0.41 min, exposure duration: 10 min
Surface (treated per task)	0,6 m ² /task	S	
Quantity of product used per m ²	50 ml/m ²	D	
Quantity of product used per task	30 ml/task	O	max 30 g [AISE (2002) cited in TGD (2003)], ConsExpo: 0.41 min x 0.78 g/s = 19 g
Quantity of active substance used per task	300 mg/task	O	
Model inhalation exposure	Exposure to aerosols / Instantaneous release		
Room volume	10 m ³	S	Bathroom
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,258033333 m ²	S	Forearms, Hands, 33% Head, 10% Lower legs
Model oral exposure	accidental		

Post application phase

Task C: residence time

Number of tasks per year	365 tasks/yr	S	once per day, max [AISE (2002) cited in TGD (2003)]
Duration of task	100 min/task	S	
Quantity of active substance used per task	300 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	10 m ³	S	Bathroom
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,042 m ²	S	50% Hands
Contact area between product and skin children	0,01040125 m ²	S	50% Hands Children
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		5 mg/kg bw		36,14457831 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		5 mg/kg bw/day		36,14457831 mg/kg bw/day
Highest potential concentration in air		30 mg/m ³		30 mg/m ³
Inhalation acute		0,572916667 mg/kg bw		1,201054217 mg/kg bw
Inhalation chronic		0,572916667 mg/kg bw/day		1,201054217 mg/kg bw/day
Dermal acute		5 mg/kg bw		1,253162651 mg/kg bw
Dermal chronic		5 mg/kg bw/day		1,253162651 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		5 mg/kg bw		2,454216867 mg/kg bw
Daily intake chronic		5 mg/kg bw/day		2,454216867 mg/kg bw/day

Scenario 4: cleaning/disinfection: small surfaces or objects using (ready for-use) spray**Results / Output**

Mixing & Loading		Task A: not applicable			
Application		Task B: spraying onto surface + deposit time			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		30 mg/m ³	O	30 mg/m ³	O
Inhalation		0,41666667 mg/min	O	0,12083333 mg/min	O
Absorption per task		3,125 mg/task	O	0,90625 mg/task	O
Exposure per task / Acute Dose		0,052083333 mg/kg bw	O	0,109186747 mg/kg bw	O
Exposure per day / Chronic Dose		0,052083333 mg/kg bw/day	O	0,109186747 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,258033333 m ²	S		
Volume of contact		25,80333333 ml	O		
Quantity of contact (mg)		258,0333333 mg	O		
Dermal load (mg/cm ²)		0,1 mg/cm ²	O		
Absorption (mg)		258,0333333 mg	O		
Exposure per task / Acute Dose		4,300555556 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		4,300555556 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		4,352638889 mg/kg bw	O	0,109186747 mg/kg bw	O
Exposure per day / Chronic Dose		4,352638889 mg/kg bw/day	O	0,109186747 mg/kg bw/day	O
Post application phase		Task C: residence time			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		30 mg/m ³	O	30 mg/m ³	O
Inhalation		0,41666667 mg/min	O	0,120833333 mg/min	O
Absorption per task		31,25 mg/task	O	9,0625 mg/task	O
Exposure per task / Acute Dose		0,520833333 mg/kg bw	O	1,09186747 mg/kg bw	O
Exposure per day / Chronic Dose		0,520833333 mg/kg bw/day	O	1,09186747 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,042 m ²	S	0,01040125 m ²	S
Volume of contact		4,2 ml	O	1,040125 ml	O
Quantity of contact (mg)		42 mg	O	10,40125 mg	O
Dermal load (mg/cm ²)		0,1 mg/cm ²	O	0,1 mg/cm ²	O
Absorption (mg)		42 mg	O	10,40125 mg	O
Exposure per task / Acute Dose		0,7 mg/kg bw	O	1,253162651 mg/kg bw	O
Exposure per day / Chronic Dose		0,7 mg/kg bw/day	O	1,253162651 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		1,220833333 mg/kg bw	O	2,34503012 mg/kg bw	O
Exposure per day / Chronic Dose		1,220833333 mg/kg bw/day	O	2,34503012 mg/kg bw/day	O
Disposal		Task D: not applicable			

Scenario 5: cleaning/disinfection: shoes using (ready for-use) spray**Scenario description**

Name of product	disinfection spray, shoe polish spray	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	ca.
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Task B: spraying onto surface + deposit time

Number of tasks per year	12 tasks/yr	S	once a month, ConsExpo: shoe polish spray 8 tasks/yr
Duration of task	5 min/task	S	ConsExpo: shoe polish spray, spray duration 1.4 min
Surface (treated per task)	0,112 m ² /task	S	Shoes = Feet
Quantity of product used per m ²	50 ml/m ²	D	
Quantity of product used per task	5,6 ml/task	O	ConsExpo: 0.43 g/s -> 36.12 g
Quantity of active substance used per task	56 mg/task	O	
Model inhalation exposure	Exposure to aerosols / Instantaneous release		
Room volume	10 m ³	S	Bathroom
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,198 m ²	S	Forearms, Hands
Model oral exposure	accidental		

Post application phase

Task C: residence time

Number of tasks per year	12 tasks/yr	S	once a month, ConsExpo: shoe polish spray 8 tasks/yr
Duration of task	20 min/task	S	ConsExpo: shoe polish spray, exposure duration 25 min
Quantity of active substance used per task	56 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	10 m ³	S	Bathroom
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,112 m ²	S	Feet
Contact area between product and skin children	0,0256695 m ²	S	Feet Children
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		0,933333333 mg/kg bw		6,746987952 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		0,030684932 mg/kg bw/day		0,221818782 mg/kg bw/day
Highest potential concentration in air		5,6 mg/m ³		5,6 mg/m ³
Inhalation acute		0,024305556 mg/kg bw		0,050953815 mg/kg bw
Inhalation chronic		0,000799087 mg/kg bw/day		0,001675194 mg/kg bw/day
Dermal acute		0,933333333 mg/kg bw		3,092710843 mg/kg bw
Dermal chronic		0,030684932 mg/kg bw/day		0,101678165 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		0,933333333 mg/kg bw		3,143664659 mg/kg bw
Daily intake chronic		0,030684932 mg/kg bw/day		0,103353359 mg/kg bw/day

Scenario 5: cleaning/disinfection: shoes using (ready for-use) spray**Results / Output**

Mixing & Loading		Task A: not applicable			
Application		Task B: spraying onto surface + deposit time			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		5,6 mg/m ³	O	5,6 mg/m ³	O
Inhalation		0,077777778 mg/min	O	0,022555556 mg/min	O
Absorption per task		0,291666667 mg/task	O	0,084583333 mg/task	O
Exposure per task / Acute Dose		0,004861111 mg/kg bw	O	0,010190763 mg/kg bw	O
Exposure per day / Chronic Dose		0,000159817 mg/kg bw/day	O	0,000335039 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,198 m ²	S		
Volume of contact		19,8 ml	O		
Quantity of contact (mg)		56 mg	S		
Dermal load (mg/cm ²)		0,028282828 mg/cm ²	O		
Absorption (mg)		56 mg	O		
Exposure per task / Acute Dose		0,933333333 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		0,030684932 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,933333333 mg/kg bw	S	0,010190763 mg/kg bw	O
Exposure per day / Chronic Dose		0,030684932 mg/kg bw/day	O	0,000335039 mg/kg bw/day	O
Post application phase		Task C: residence time			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		5,6 mg/m ³	O	5,6 mg/m ³	O
Inhalation		0,077777778 mg/min	O	0,022555556 mg/min	O
Absorption per task		1,166666667 mg/task	O	0,338333333 mg/task	O
Exposure per task / Acute Dose		0,019444444 mg/kg bw	O	0,040763052 mg/kg bw	O
Exposure per day / Chronic Dose		0,000639269 mg/kg bw/day	O	0,001340155 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,112 m ²	S	0,0256695 m ²	S
Volume of contact		11,2 ml	O	2,56695 ml	O
Quantity of contact (mg)		56 mg	S	25,6695 mg	O
Dermal load (mg/cm ²)		0,05 mg/cm ²	O	0,1 mg/cm ²	O
Absorption (mg)		56 mg	O	25,6695 mg	O
Exposure per task / Acute Dose		0,933333333 mg/kg bw	O	3,092710843 mg/kg bw	O
Exposure per day / Chronic Dose		0,030684932 mg/kg bw/day	O	0,101678165 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,933333333 mg/kg bw	S	3,133473896 mg/kg bw	O
Exposure per day / Chronic Dose		0,030684932 mg/kg bw/day	O	0,10301832 mg/kg bw/day	O
Disposal		Task D: not applicable			

Scenario 6: cleaning/disinfection: textiles (e.g. jacket, sofa) using (ready for-use) spray**Scenario description**

Name of product	disinfection spray	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Task B: spraying onto surface + deposit time

Number of tasks per year	12 tasks/yr	S	once a month
Duration of task	10 min/task	S	incl. deposit time
Surface (treated per task)	1 m ² /task	S	
Quantity of product used per m ²	50 ml/m ²	D	
Quantity of product used per task	50 ml/task	O	
Quantity of active substance used per task	500 mg/task	O	
Model inhalation exposure	Exposure to aerosols / Instantaneous release		
Room volume	30 m ³	S	Room
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,258033333 m ²	S	Forearms, Hands, 33% Head, 10% Lower legs
Model oral exposure	accidental		

Post application phase

Task C: residence time

Number of tasks per year	12 tasks/yr	S	once a month
Duration of task	50 min/task	S	
Quantity of active substance used per task	500 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	30 m ³	S	Room
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,319 m ²	S	Upper extremities (Jacket with T-shirt)
Contact area between product and skin children	0,074575 m ²	S	Arms, Hands children
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		8,333333333 mg/kg bw		60,24096386 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		0,273972603 mg/kg bw/day		1,980524839 mg/kg bw/day
Highest potential concentration in air		16,66666667 mg/m ³		16,66666667 mg/m ³
Inhalation acute		0,173611111 mg/kg bw		0,363955823 mg/kg bw
Inhalation chronic		0,005707763 mg/kg bw/day		0,011965671 mg/kg bw/day
Dermal acute		8,333333333 mg/kg bw		8,984939759 mg/kg bw
Dermal chronic		0,273972603 mg/kg bw/day		0,29539528 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		8,333333333 mg/kg bw		9,348895582 mg/kg bw
Daily intake chronic		0,273972603 mg/kg bw/day		0,307360951 mg/kg bw/day

Scenario 6: cleaning/disinfection: textiles (e.g. jacket, sofa) using (ready for-use) spray**Results / Output**

Mixing & Loading		Task A: not applicable			
Application		Task B: spraying onto surface + deposit time			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		16,66666667 mg/m ³	O	16,66666667 mg/m ³	O
Inhalation		0,231481481 mg/min	O	0,06712963 mg/min	O
Absorption per task		1,736111111 mg/task	O	0,503472222 mg/task	O
Exposure per task / Acute Dose		0,028935185 mg/kg bw	O	0,060659304 mg/kg bw	O
Exposure per day / Chronic Dose		0,000951294 mg/kg bw/day	O	0,001994278 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,258033333 m ²	S		
Volume of contact		25,80333333 ml	O		
Quantity of contact (mg)		258,0333333 mg	O		
Dermal load (mg/cm ²)		0,1 mg/cm ²	O		
Absorption (mg)		258,0333333 mg	O		
Exposure per task / Acute Dose		4,300555556 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		0,141388128 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		4,329490741 mg/kg bw	O	0,060659304 mg/kg bw	O
Exposure per day / Chronic Dose		0,142339422 mg/kg bw/day	O	0,001994278 mg/kg bw/day	O
Post application phase		Task C: residence time			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		16,66666667 mg/m ³	O	16,66666667 mg/m ³	O
Inhalation		0,231481481 mg/min	O	0,06712963 mg/min	O
Absorption per task		8,680555556 mg/task	O	2,517361111 mg/task	O
Exposure per task / Acute Dose		0,144675926 mg/kg bw	O	0,303296519 mg/kg bw	O
Exposure per day / Chronic Dose		0,004756469 mg/kg bw/day	O	0,009971392 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,319 m ²	S	0,074575 m ²	S
Volume of contact		31,9 ml	O	7,4575 ml	O
Quantity of contact (mg)		319 mg	O	74,575 mg	O
Dermal load (mg/cm ²)		0,1 mg/cm ²	O	0,1 mg/cm ²	O
Absorption (mg)		319 mg	O	74,575 mg	O
Exposure per task / Acute Dose		5,316666667 mg/kg bw	O	8,984939759 mg/kg bw	O
Exposure per day / Chronic Dose		0,174794521 mg/kg bw/day	O	0,29539528 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		5,461342593 mg/kg bw	O	9,288236278 mg/kg bw	O
Exposure per day / Chronic Dose		0,179550989 mg/kg bw/day	O	0,305366672 mg/kg bw/day	O
Disposal		Task D: not applicable			

Scenario 7: cleaning/disinfection: surfaces using spray (dilution of liquid concentrate)

Scenario description

			Comments
Name of product	disinfection cleaner	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product (concentrate)	1 %	S	Frame Formulation
Concentration of active substance in product (concentrate) (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

	Task A: simple dilution with water in spray bottles		
Number of tasks per year	52 tasks/yr	S	once a week
Duration of task	1,333333333 min/task	S	80 sec. [mixing spray TNsG 2002 p. 252]
Volume of product used per task	1000 ml/task	S	Frame Formulation 100-200 ml/l
Quantity of water used per task	4 L/task	S	Gesamt volumen 5 Liter
Quantity of product used per task	1000 g/task	O	
Quantity of active substance used per task	10000 mg/task	O	
Concentration of active substance in ready-for-use solution	2000 mg/l	S	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between ready-for-use solution and air, limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
REM Evaporation from mixture, release area concentrate	0,002 m ²	D	bottle diameter 5 cm [TNsG 2002 p. 252]
REM Evaporation from mixture, release area ready-for-use solution	0,001963495 m ²	S	bottle diameter 5 cm
Model dermal exposure	Direct dermal contact		
Contact area between Product (concentrate) and skin	0,0168 m ²	S	Fingertips
Model oral exposure	accidental		

Application

	Task B: spraying onto surface + deposit time		
Number of tasks per year	52 tasks/yr	S	once a week
Duration of task	30 min/task	S	
Surface (treated per task)	20 m ² /task	S	
Quantity of ready-for-use solution used per m ²	50 ml/m ²	D	
Quantity of ready-for-use solution used per task	1000 ml/task	O	
Quantity of active substance used per task	2000 mg/task	O	
Concentration of active substance in ready-for-use solution	2000 mg/l	S	
Model inhalation exposure	Exposure to aerosols / Instantaneous release		
Room volume	15 m ³	S	Kitchen (Terrace)
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use solution and skin	0,258033333 m ²	S	Forearms, Hands, 33% Head, 10% Lower legs
Model oral exposure	accidental		

Post application phase

	Task C: residence time		
Number of tasks per year	52 tasks/yr	S	once a week
Duration of task	90 min/task	S	ConsExpo: 120 min total inhalative exposure liquid cleaner
Quantity of active substance used per task	2000 mg/task	O	
Concentration of active substance in ready-for-use solution	2000 mg/l	S	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	15 m ³	S	Kitchen (Terrace)
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use solution and skin	0,042 m ²	S	50% Hands
Contact area between ready-for-use solution and skin children	0,01040125 m ²	S	50% Hands Children
Model oral exposure	accidental		

Disposal

	Task D: excessive ready-for-use solution is disposed to the main drainage		
Number of tasks per year	52 tasks/yr	S	once a week
Duration of task	1 min/task	S	
Volume of ready-for-use solution disposed per task	4 L/task	S	
Concentration of active substance in ready-for-use solution	2000 mg/l	S	
Quantity of active substance disposed per task	8000 mg/task	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between ready-for-use solution and air, limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
REM Evaporation from mixture, release area ready-for-use solution	0,070685835 m ²	S	bucket diameter 30 cm
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use solution and skin	0,198 m ²	S	Hands, Forearms
Model oral exposure	accidental		

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		166,6666667 mg/kg bw		1204,819277 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		23,74429224 mg/kg bw/day		171,6454861 mg/kg bw/day
Highest potential concentration in air		133,3333333 mg/m ³		133,3333333 mg/m ³
Inhalation acute		2,777967721 mg/kg bw		5,823691367 mg/kg bw
Inhalation chronic		0,395765264 mg/kg bw/day		0,829676578 mg/kg bw/day
Dermal acute		1,940111111 mg/kg bw		0,25063253 mg/kg bw
Dermal chronic		0,276399391 mg/kg bw/day		0,035706552 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		4,718078832 mg/kg bw		6,074323897 mg/kg bw
Daily intake chronic		0,672164656 mg/kg bw/day		0,865383131 mg/kg bw/day

Scenario 7: cleaning/disinfection: surfaces using spray (dilution of liquid concentrate)

Results / Output

Mixing & Loading					
Task A: simple dilution with water in spray bottles					
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	0,512847002 mg/m ³	O		0,512847002 mg/m ³	O
Inhalation	0,007122875 mg/min	O		0,002065634 mg/min	O
Absorption per task	0,007122875 mg/task	O		0,002065634 mg/task	O
Exposure per task / Acute Dose	0,000118715 mg/kg bw	O		0,000248872 mg/kg bw	O
Exposure per day / Chronic Dose	1,69128E-05 mg/kg bw/day	O		3,54557E-05 mg/kg bw/day	O
Dermal					
Contact area between product and skin	0,0168 m ²	S			
Volume of contact	1,68 ml	O			
Quantity of contact (mg)	16,8 mg	O			
Dermal load (mg/cm ²)	0,1 mg/cm ²	O			
Absorption (mg)	16,8 mg	O			
Exposure per task / Acute Dose	0,28 mg/kg bw	O	no		S
Exposure per day / Chronic Dose	0,039890411 mg/kg bw/day	O	no		S
Oral					
Exposure / Dose	accidental	S		accidental	S
Intake					
Exposure per task / Acute Dose	0,280118715 mg/kg bw	O		0,000248872 mg/kg bw	O
Exposure per day / Chronic Dose	0,039907324 mg/kg bw/day	O		3,54557E-05 mg/kg bw/day	O

Application					
Task B: spraying onto surface + deposit time					
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	133,33333333 mg/m ³	O		133,33333333 mg/m ³	O
Inhalation	1,851851852 mg/min	O		0,537037037 mg/min	O
Absorption per task	41,66666667 mg/task	O		12,08333333 mg/task	O
Exposure per task / Acute Dose	0,694444444 mg/kg bw	O		1,455823293 mg/kg bw	O
Exposure per day / Chronic Dose	0,098934551 mg/kg bw/day	O		0,207404962 mg/kg bw/day	O
Dermal					
Contact area between ready-for-use solution and skin	0,258033333 m ²	S			
Volume of contact	25,80333333 ml	O			
Quantity of contact (mg)	51,60666667 mg	O			
Dermal load (mg/cm ²)	0,02 mg/cm ²	O			
Absorption (mg)	51,60666667 mg	O			
Exposure per task / Acute Dose	0,860111111 mg/kg bw	O	no		S
Exposure per day / Chronic Dose	0,122536377 mg/kg bw/day	O	no		S
Oral					
Exposure / Dose	accidental	S		accidental	S
Intake					
Exposure per task / Acute Dose	1,554555556 mg/kg bw	O		1,455823293 mg/kg bw	O
Exposure per day / Chronic Dose	0,221470928 mg/kg bw/day	O		0,207404962 mg/kg bw/day	O

Post application phase					
Task C: residence time					
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	133,33333333 mg/m ³	O		133,33333333 mg/m ³	O
Inhalation	1,851851852 mg/min	O		0,537037037 mg/min	O
Absorption per task	125 mg/task	O		36,25 mg/task	O
Exposure per task / Acute Dose	2,083333333 mg/kg bw	O		4,36746988 mg/kg bw	O
Exposure per day / Chronic Dose	0,296803653 mg/kg bw/day	O		0,622214887 mg/kg bw/day	O
Dermal					
Contact area between ready-for-use solution and skin	0,042 m ²	S		0,01040125 m ²	S
Volume of contact	4,2 ml	O		1,040125 ml	O
Quantity of contact (mg)	8,4 mg	O		2,08025 mg	O
Dermal load (mg/cm ²)	0,02 mg/cm ²	O		0,02 mg/cm ²	O
Absorption (mg)	8,4 mg	O		2,08025 mg	O
Exposure per task / Acute Dose	0,14 mg/kg bw	O		0,25063253 mg/kg bw	O
Exposure per day / Chronic Dose	0,019945205 mg/kg bw/day	O		0,035706552 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental	S		accidental	S
Intake					
Exposure per task / Acute Dose	2,223333333 mg/kg bw	O		4,61810241 mg/kg bw	O
Exposure per day / Chronic Dose	0,316748858 mg/kg bw/day	O		0,657921439 mg/kg bw/day	O

Disposal					
Task D: excessive ready-for-use solution is disposed to the main drainage					
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	0,410277602 mg/m ³	O		0,410277602 mg/m ³	O
Inhalation	0,0056983 mg/min	O		0,001652507 mg/min	O
Absorption per task	0,004273725 mg/task	O		0,00123938 mg/task	O
Exposure per task / Acute Dose	7,12288E-05 mg/kg bw	O		0,000149323 mg/kg bw	O
Exposure per day / Chronic Dose	1,01477E-05 mg/kg bw/day	O		2,12734E-05 mg/kg bw/day	O
Dermal					
Contact area between ready-for-use solution and skin	0,198 m ²	S			
Volume of contact	19,8 ml	O			
Quantity of contact (mg)	39,6 mg	O			
Dermal load (mg/cm ²)	0,02 mg/cm ²	O			
Absorption (mg)	39,6 mg	O			
Exposure per task / Acute Dose	0,66 mg/kg bw	O	no		S
Exposure per day / Chronic Dose	0,094027397 mg/kg bw/day	O	no		S
Oral					
Exposure / Dose	accidental	S		accidental	S
Intake					
Exposure per task / Acute Dose	0,660071229 mg/kg bw	O		0,000149323 mg/kg bw	O
Exposure per day / Chronic Dose	0,094037545 mg/kg bw/day	O		2,12734E-05 mg/kg bw/day	O

Scenario 8: cleaning/disinfection: surfaces using (ready-for-use) spray (incl. wiping of surface)**Scenario description**

Name of product	disinfection cleaner	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application I

Task B: spraying onto surface + deposit time

Number of tasks per year	365 tasks/yr	S	once per day, max [AISE (2002) cited in TGD (2003)]
Duration of task	10 min/task	S	max 10 min [AISE (2002) cited in TGD (2003)]
Surface (treated per task)	0,6 m ² /task	S	
Quantity of product used per m ²	50 ml/m ²	D	
Quantity of product used per task	30 ml/task	O	max 30 g [AISE (2002) cited in TGD (2003)]
Quantity of active substance used per task	300 mg/task	O	
Model inhalation exposure	Exposure to aerosols / Instantaneous release		
Room volume	10 m ³	S	Bathroom
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,258033333 m ²	S	Forearms, Hands, 33% Head, 10% Lower legs
Model oral exposure	accidental		

Post application phase I

Task C: residence time after spraying

Number of tasks per year	365 tasks/yr	S	once per day, max [AISE (2002) cited in TGD (2003)]
Duration of task	10 min/task	S	
Quantity of active substance used per task	300 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	10 m ³	S	Bathroom
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,042 m ²	D	50% Hands
Contact area between product and skin children	0,01040125 m ²	D	50% Hands Children
Model oral exposure	accidental		

Application II

Task D: wiping of surface

Number of tasks per year	365 tasks/yr	S	once per day, max [AISE (2002) cited in TGD (2003)]
Duration of task	10 min/task	S	
Surface (treated per task)	0,6 m ² /task	S	
Quantity of active substance used per task	300 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	10 m ³	S	Bathroom
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,198 m ²	S	Forearms, Hands
Model oral exposure	accidental		

Post application phase II

Task E: residence time after wiping

Number of tasks per year	365 tasks/yr	S	once per day, max [AISE (2002) cited in TGD (2003)]
Duration of task	90 min/task	S	ConsExpo: 120 min total inhalative exposure liquid cleaner
Quantity of active substance used per task	300 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	10 m ³	S	Bathroom
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,042 m ²	S	50% Hands
Contact area between product and skin children	0,01040125 m ²	S	50% Hands Children
Model oral exposure	accidental		

Disposal

Task F: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		5 mg/kg bw		36,14457831 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		5 mg/kg bw/day		36,14457831 mg/kg bw/day
Highest potential concentration in air		30 mg/m ³		30 mg/m ³
Inhalation acute		0,625 mg/kg bw		1,310240964 mg/kg bw
Inhalation chronic		0,625 mg/kg bw/day		1,310240964 mg/kg bw/day
Dermal acute		5 mg/kg bw		2,506325301 mg/kg bw
Dermal chronic		5 mg/kg bw/day		2,506325301 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		5 mg/kg bw		3,816566265 mg/kg bw
Daily intake chronic		5 mg/kg bw/day		3,816566265 mg/kg bw/day

Scenario 8: cleaning/disinfection: surfaces using (ready-for-use) spray (incl. wiping of surface)**Results / Output**

Mixing & Loading		Task A: not applicable			
Application I		Task B: spraying onto surface + deposit time			
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		30 mg/m³	O	30 mg/m³	O
Inhalation	0,416666667	mg/min	O	0,120833333	mg/min
Absorption per task		3,125 mg/task	O	0,90625	mg/task
Exposure per task / Acute Dose		0,052083333 mg/kg bw	O	0,109186747	mg/kg bw
Exposure per day / Chronic Dose		0,052083333 mg/kg bw/day	O	0,109186747	mg/kg bw/day
Dermal					
Contact area between product and skin		0,258033333 m²	S		
Volume of contact		25,80333333 ml	O		
Quantity of contact (mg)		258,0333333 mg	O		
Dermal load (mg/cm²)		0,1 mg/cm²	O		
Absorption (mg)		258,0333333 mg	O		
Exposure per task / Acute Dose		4,300555556 mg/kg bw	O	no	
Exposure per day / Chronic Dose		4,300555556 mg/kg bw/day	O	no	
Oral					
Exposure / Dose	accidental		S	accidental	
Intake					
Exposure per task / Acute Dose		4,352638889 mg/kg bw	O	0,109186747	mg/kg bw
Exposure per day / Chronic Dose		4,352638889 mg/kg bw/day	O	0,109186747	mg/kg bw/day

Post application phase I		Task C: residence time after spraying			
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		30 mg/m³	O	30 mg/m³	O
Inhalation	0,416666667	mg/min	O	0,120833333	mg/min
Absorption per task		3,125 mg/task	O	0,90625	mg/task
Exposure per task / Acute Dose		0,052083333 mg/kg bw	O	0,109186747	mg/kg bw
Exposure per day / Chronic Dose		0,052083333 mg/kg bw/day	O	0,109186747	mg/kg bw/day
Dermal					
Contact area between product and skin		0,042 m²	D	0,01040125	m²
Volume of contact		4,2 ml	O	1,040125	ml
Quantity of contact (mg)		42 mg	O	10,40125	mg
Dermal load (mg/cm²)		0,1 mg/cm²	O	0,1	mg/cm²
Absorption (mg)		42 mg	O	10,40125	mg
Exposure per task / Acute Dose		0,7 mg/kg bw	O	1,253162651	mg/kg bw
Exposure per day / Chronic Dose		0,7 mg/kg bw/day	O	1,253162651	mg/kg bw/day
Oral					
Exposure / Dose	accidental		S	accidental	
Intake					
Exposure per task / Acute Dose		0,752083333 mg/kg bw	O	1,362349398	mg/kg bw
Exposure per day / Chronic Dose		0,752083333 mg/kg bw/day	O	1,362349398	mg/kg bw/day

Application II		Task D: wiping of surface			
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		30 mg/m³	O	30 mg/m³	O
Inhalation	0,416666667	mg/min	O	0,120833333	mg/min
Absorption per task		3,125 mg/task	O	0,90625	mg/task
Exposure per task / Acute Dose		0,052083333 mg/kg bw	O	0,109186747	mg/kg bw
Exposure per day / Chronic Dose		0,052083333 mg/kg bw/day	O	0,109186747	mg/kg bw/day
Dermal					
Contact area between product and skin		0,198 m²	O		
Volume of contact		19,8 ml	O		
Quantity of contact (mg)		198 mg	O		
Dermal load (mg/cm²)		0,1 mg/cm²	O		
Absorption (mg)		198 mg	O		
Exposure per task / Acute Dose		3,3 mg/kg bw	O	no	
Exposure per day / Chronic Dose		3,3 mg/kg bw/day	O	no	
Oral					
Exposure / Dose	accidental		S	accidental	
Intake					
Exposure per task / Acute Dose		3,352083333 mg/kg bw	O	0,109186747	mg/kg bw
Exposure per day / Chronic Dose		3,352083333 mg/kg bw/day	O	0,109186747	mg/kg bw/day

Post application phase II		Task E: residence time after wiping			
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		30 mg/m³	O	30 mg/m³	O
Inhalation	0,416666667	mg/min	O	0,120833333	mg/min
Absorption per task		28,125 mg/task	O	8,15625	mg/task
Exposure per task / Acute Dose		0,46875 mg/kg bw	O	0,982680723	mg/kg bw
Exposure per day / Chronic Dose		0,46875 mg/kg bw/day	O	0,982680723	mg/kg bw/day
Dermal					
Contact area between product and skin		0,042 m²	S	0,01040125	m²
Volume of contact		4,2 ml	O	1,040125	ml
Quantity of contact (mg)		42 mg	O	10,40125	mg
Dermal load (mg/cm²)		0,1 mg/cm²	O	0,1	mg/cm²
Absorption (mg)		42 mg	O	10,40125	mg
Exposure per task / Acute Dose		0,7 mg/kg bw	O	1,253162651	mg/kg bw
Exposure per day / Chronic Dose		0,7 mg/kg bw/day	O	1,253162651	mg/kg bw/day
Oral					
Exposure / Dose	accidental		S	accidental	
Intake					
Exposure per task / Acute Dose		1,16875 mg/kg bw	O	2,235843373	mg/kg bw
Exposure per day / Chronic Dose		1,16875 mg/kg bw/day	O	2,235843373	mg/kg bw/day

Disposal		Task F: not applicable			
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Scenario 9: cleaning/disinfection: surfaces using (ready-for-use) spray (incl. washing-up of surface)**Scenario description**

Name of product	disinfection cleaner	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application I

Task B: spraying onto surface + deposit time

Number of tasks per year	365 tasks/yr	S	once per day, max [AISE (2002) cited in TGD (2003)]
Duration of task	10 min/task	S	max 10 min [AISE (2002) cited in TGD (2003)]
Surface (treated per task)	0,6 m ² /task	S	
Quantity of product used per m ²	50 ml/m ²	D	
Quantity of product used per task	30 ml/task	O	max 30 g [AISE (2002) cited in TGD (2003)]
Quantity of active substance used per task	300 mg/task	O	
Model inhalation exposure	Exposure to aerosols / Instantaneous release		
Room volume	10 m ³	S	Bathroom
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,258033333 m ²	S	Forearms, Hands, 33% Head, 10% Lower legs
Model oral exposure	accidental		

Post application phase I

Task C: residence time

Number of tasks per year	365 tasks/yr	S	once per day, max [AISE (2002) cited in TGD (2003)]
Duration of task	10 min/task	S	
Quantity of active substance used per task	300 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	10 m ³	S	Bathroom
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,042 m ²	S	50% Hands
Contact area between product and skin children	0,01040125 m ²	S	50% Hands Children
Model oral exposure	accidental		

Application II

Task D: wash-up of surface

Number of tasks per year	365 tasks/yr	S	once per day, max [AISE (2002) cited in TGD (2003)]
Duration of task	10 min/task	S	
Surface (treated per task)	0,6 m ² /task	S	
Quantity of active substance used per task	300 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	10 m ³	S	Bathroom
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,198 m ²	S	Forearms, Hands
Model oral exposure	accidental		

Post application phase II

Task E: not applicable

Disposal

Task F: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		5 mg/kg bw		36,14457831 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		5 mg/kg bw/day		36,14457831 mg/kg bw/day
Highest potential concentration in air		30 mg/m ³		30 mg/m ³
Inhalation acute		0,15625 mg/kg bw		0,327560241 mg/kg bw
Inhalation chronic		0,15625 mg/kg bw/day		0,327560241 mg/kg bw/day
Dermal acute		5 mg/kg bw		1,253162651 mg/kg bw
Dermal chronic		5 mg/kg bw/day		1,253162651 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		5 mg/kg bw		1,580722892 mg/kg bw
Daily intake chronic		5 mg/kg bw/day		1,580722892 mg/kg bw/day

Scenario 9: cleaning/disinfection: surfaces using (ready-for-use) spray (incl. washing-up of surface)**Results / Output**

Mixing & Loading		Task A: not applicable			
Application I		Task B: spraying onto surface + deposit time			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		30 mg/m ³	O	30 mg/m ³	O
Inhalation		0,416666667 mg/min	O	0,120833333 mg/min	O
Absorption per task		3,125 mg/task	O	0,90625 mg/task	O
Exposure per task / Acute Dose		0,052083333 mg/kg bw	O	0,109186747 mg/kg bw	O
Exposure per day / Chronic Dose		0,052083333 mg/kg bw/day	O	0,109186747 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,258033333 m ²	S		
Volume of contact		25,80333333 ml	O		
Quantity of contact (mg)		258,0333333 mg	O		
Dermal load (mg/cm ²)		0,1 mg/cm ²	O		
Absorption (mg)		258,0333333 mg	O		
Exposure per task / Acute Dose		4,300555556 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		4,300555556 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		4,352638889 mg/kg bw	O	0,109186747 mg/kg bw	O
Exposure per day / Chronic Dose		4,352638889 mg/kg bw/day	O	0,109186747 mg/kg bw/day	O
Post application phase I		Task C: residence time			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		30 mg/m ³	O	30 mg/m ³	O
Inhalation		0,416666667 mg/min	O	0,120833333 mg/min	O
Absorption per task		3,125 mg/task	O	0,90625 mg/task	O
Exposure per task / Acute Dose		0,052083333 mg/kg bw	O	0,109186747 mg/kg bw	O
Exposure per day / Chronic Dose		0,052083333 mg/kg bw/day	O	0,109186747 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,042 m ²	S	0,01040125 m ²	S
Volume of contact		4,2 ml	O	1,040125 ml	O
Quantity of contact (mg)		42 mg	O	10,40125 mg	O
Dermal load (mg/cm ²)		0,1 mg/cm ²	O	0,1 mg/cm ²	O
Absorption (mg)		42 mg	O	10,40125 mg	O
Exposure per task / Acute Dose		0,7 mg/kg bw	O	1,253162651 mg/kg bw	O
Exposure per day / Chronic Dose		0,7 mg/kg bw/day	O	1,253162651 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,752083333 mg/kg bw	O	1,362349398 mg/kg bw	O
Exposure per day / Chronic Dose		0,752083333 mg/kg bw/day	O	1,362349398 mg/kg bw/day	O
Application II		Task D: wash-up of surface			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		30 mg/m ³	O	30 mg/m ³	O
Inhalation		0,416666667 mg/min	O	0,120833333 mg/min	O
Absorption per task		3,125 mg/task	O	0,90625 mg/task	O
Exposure per task / Acute Dose		0,052083333 mg/kg bw	O	0,109186747 mg/kg bw	O
Exposure per day / Chronic Dose		0,052083333 mg/kg bw/day	O	0,109186747 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,198 m ²	O		
Volume of contact		19,8 ml	O		
Quantity of contact (mg)		198 mg	O		
Dermal load (mg/cm ²)		0,1 mg/cm ²	O		
Absorption (mg)		198 mg	O		
Exposure per task / Acute Dose		3,3 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		3,3 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		3,352083333 mg/kg bw	O	0,109186747 mg/kg bw	O
Exposure per day / Chronic Dose		3,352083333 mg/kg bw/day	O	0,109186747 mg/kg bw/day	O
Post application phase II		Task E: not applicable			
Disposal		Task F: not applicable			

Scenario 10: cleaning/disinfection: disinfection wipe (small surfaces)**Scenario description**

Name of product	disinfection wipe	S	
Physical state product (liquid/solid)	liquid	S	
Concentration of active substance in product	1 g/wipe	S	Frame Formulation
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

	Task B: disinfection: wiping of surface		
Number of tasks per year	365 tasks/yr	S	once a day
Duration of task	2 min/task	S	ConsExpo
Quantity of wipes used per task	1 wipes/task	S	
Quantity of active substance used per task	1000 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
REM Surface (treated per task), Release area	0,0682 m ² /task	S	toilet seat, doorknob
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,042 m ²	S	50% Hands
Contact amount between active substance and skin	100 mg/task	S	10% of whole amount used
Model oral exposure	accidental		

Post application phase

	Task C: residence time		
Number of tasks per year	365 tasks/yr	S	once a day
Duration of task	10 min/task	S	
Quantity of wipes used per task	1 wipes/task	S	
Quantity of active substance used per task	1000 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	2,5 m ³	S	Toilet
REM Surface (treated per task), Release area	0,0682 m ² /task	S	toilet seat, doorknob
Model dermal exposure	Direct dermal contact		
Contact area between treated surface and skin	0,042 m ²	S	50% Hands
Contact area between treated surface and skin children	0,01040125 m ²	S	50% Hands Children
Contact amount between active substance and skin	100 mg/task	S	10% of whole amount used, residuals on surface
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		16,66666667 mg/kg bw		120,4819277 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		16,66666667 mg/kg bw/day		120,4819277 mg/kg bw/day
Highest potential concentration in air		205,1493218 mg/m ³		205,1493218 mg/m ³
Inhalation acute		0,42739442 mg/kg bw		0,895983484 mg/kg bw
Inhalation chronic		0,42739442 mg/kg bw/day		0,895983484 mg/kg bw/day
Dermal acute		3,333333333 mg/kg bw		12,04819277 mg/kg bw
Dermal chronic		3,333333333 mg/kg bw/day		12,04819277 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		3,760727754 mg/kg bw		12,94417625 mg/kg bw
Daily intake chronic		3,760727754 mg/kg bw/day		12,94417625 mg/kg bw/day

Scenario 10: cleaning/disinfection: disinfection wipe (small surfaces)**Results / Output**

Mixing & Loading		Task A: not applicable			
Application		Task B: disinfection: wiping of surface			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		205,1493218 mg/m ³	S	205,1493218 mg/m ³	S
Inhalation		2,849296137 mg/min	O	0,82629588 mg/min	O
Absorption per task		4,273944205 mg/task	O	1,239443819 mg/task	O
Exposure per task / Acute Dose		0,071232403 mg/kg bw	O	0,149330581 mg/kg bw	O
Exposure per day / Chronic Dose		0,071232403 mg/kg bw/day	O	0,149330581 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,042 m ²	S		
Quantity of contact (mg)		100 mg	S		
Dermal load (mg/cm ²)		0,238095238 mg/cm ²	O		
Absorption (mg)		100 mg	O		
Exposure per task / Acute Dose		1,666666667 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		1,666666667 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose		accidental	S	accidental	S
Intake					
Exposure per task / Acute Dose		1,73789907 mg/kg bw	O	0,149330581 mg/kg bw	O
Exposure per day / Chronic Dose		1,73789907 mg/kg bw/day	O	0,149330581 mg/kg bw/day	O
Post application phase		Task C: residence time			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		205,1493218 mg/m ³	S	205,1493218 mg/m ³	S
Inhalation		2,849296137 mg/min	O	0,82629588 mg/min	O
Absorption per task		21,36972102 mg/task	O	6,197219097 mg/task	O
Exposure per task / Acute Dose		0,356162017 mg/kg bw	O	0,746652903 mg/kg bw	O
Exposure per day / Chronic Dose		0,356162017 mg/kg bw/day	O	0,746652903 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,042 m ²	S	0,01040125 m ²	S
Quantity of contact (mg)		100 mg	S	100 mg	S
Dermal load (mg/cm ²)		0,238095238 mg/cm ²	O	0,961422906 mg/cm ²	O
Absorption (mg)		100 mg	O	100 mg	O
Exposure per task / Acute Dose		1,666666667 mg/kg bw	O	12,04819277 mg/kg bw	O
Exposure per day / Chronic Dose		1,666666667 mg/kg bw/day	O	12,04819277 mg/kg bw/day	O
Oral					
Exposure / Dose		accidental	S	accidental	S
Intake					
Exposure per task / Acute Dose		2,022828684 mg/kg bw	O	12,79484567 mg/kg bw	O
Exposure per day / Chronic Dose		2,022828684 mg/kg bw/day	O	12,79484567 mg/kg bw/day	O
Disposal		Task D: not applicable			

Scenario 11: cleaning/disinfection: toilet cleaners (liquid/gel)**Scenario description**

Name of product	disinfection cleaner used for toilet cleaning	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Task B: splashing cleaner into toilet bowl			
Number of tasks per year	104 tasks/yr	S	twice a week, max [AISE (2002) cited in TGD (2003)]
Duration of task	1 min/task	S	< 1 min [AISE (2002) cited in TGD (2003)]
Quantity of product used per task	35 g/task	S	max gel [AISE (2002) cited in TGD (2003)]
Quantity of active substance used per task	350 mg/task	O	
Volume of product used per task	35 ml/task	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between product/solution and air, limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
REM Surface (treated per task), release area	0,225 m ² /task	S	toilet bowl
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,0168 m ²	S	Fingertips
Model oral exposure	accidental		

Post application phase

Task C: residence time until flushing			
Number of tasks per year	104 tasks/yr	S	twice a week, max [AISE (2002) cited in TGD (2003)]
Duration of task	30 min/task	S	
Quantity of product used per task	35 g/task	S	max gel [AISE (2002) cited in TGD (2003)]
Quantity of active substance used per task	350 mg/task	O	
Volume of product used per task	35 ml/task	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between product/solution and air, limited to vapour pressure)		
Room volume	2,5 m ³	S	toilet
REM Surface (treated per task), release area	0,225 m ² /task	S	toilet bowl
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0 m ²	S	no direct contact
Contact area between product and skin children	0 m ²	S	no direct contact
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		5,833333333 mg/kg bw		42,1686747 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		1,662100457 mg/kg bw/day		12,01518402 mg/kg bw/day
Highest potential concentration in air		2,039538648 mg/m ³		2,039538648 mg/m ³
Inhalation acute		0,010884637 mg/kg bw		0,022818397 mg/kg bw
Inhalation chronic		0,003101376 mg/kg bw/day		0,00650168 mg/kg bw/day
Dermal acute		0,28 mg/kg bw		0 mg/kg bw
Dermal chronic		0,079780822 mg/kg bw/day		0 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		0,290884637 mg/kg bw		0,022818397 mg/kg bw
Daily intake chronic		0,082882198 mg/kg bw/day		0,00650168 mg/kg bw/day

Scenario 11: cleaning/disinfection: toilet cleaners (liquid/gel)**Results / Output**

Mixing & Loading		Task A: not applicable			
Application		Task B: splashing cleaner into toilet bowl			
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	2,039538648	mg/m ³	O	2,039538648	mg/m ³
Inhalation	0,028326926	mg/min	O	0,008214808	mg/min
Absorption per task	0,021245194	mg/task	O	0,006161106	mg/task
Exposure per task / Acute Dose	0,000354087	mg/kg bw	O	0,000742302	mg/kg bw
Exposure per day / Chronic Dose	0,00010089	mg/kg bw/day	O	0,000211505	mg/kg bw/day
Dermal					
Contact area between product and skin	0,0168	m ²	S		
Volume of contact	1,68	ml	O		
Quantity of contact (mg)	16,8	mg	O		
Dermal load (mg/cm ²)	0,1	mg/cm ²	O		
Absorption (mg)	16,8	mg	O		
Exposure per task / Acute Dose	0,28	mg/kg bw	O	no	S
Exposure per day / Chronic Dose	0,079780822	mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose	0,280354087	mg/kg bw	O	0,000742302	mg/kg bw
Exposure per day / Chronic Dose	0,079881712	mg/kg bw/day	O	0,000211505	mg/kg bw/day
Post application phase		Task C: residence time until flushing			
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	2,021865762	mg/m ³	O	2,021865762	mg/m ³
Inhalation	0,028081469	mg/min	O	0,008143626	mg/min
Absorption per task	0,631833051	mg/task	O	0,183231585	mg/task
Exposure per task / Acute Dose	0,010530551	mg/kg bw	O	0,022076095	mg/kg bw
Exposure per day / Chronic Dose	0,003000486	mg/kg bw/day	O	0,006290175	mg/kg bw/day
Dermal					
Exposure per task / Acute Dose	no	mg/kg bw	S	no	mg/kg bw
Exposure per day / Chronic Dose	no	mg/kg bw/day	S	no	mg/kg bw/day
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose	0,010530551	mg/kg bw	O	0,022076095	mg/kg bw
Exposure per day / Chronic Dose	0,003000486	mg/kg bw/day	O	0,006290175	mg/kg bw/day
Disposal		Task D: not applicable			

Scenario 12: cleaning/disinfection: drain cleaner (liquid)**Scenario description**

Name of product	disinfection cleaner used for drain cleaning	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Number of tasks per year	Task B: pouring the cleaner into the drain		
Duration of task	4 tasks/yr	S	every three month
Quantity of product used per task	1 min/task	S	
Quantity of active substance used per task	100 ml/task	S	
Model inhalation exposure	1000 mg/task	O	
Room volume	Exposure to vapour / Fugacity concept (equilibrium between product/solution and air, limited to vapour pressure)		
	1 m ³	S	cloud around user
REM Surface (treated per task), release area	0,00159 m ² /task	S	drain of bathtub or shower
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,0168 m ²	S	Fingertips
Model oral exposure	accidental		

Post application phase

Number of tasks per year	Task C: residence time + flushing		
Duration of task	4 tasks/yr	S	every three month
Quantity of product used per task	30 min/task	S	Bref 111 Tips
Quantity of active substance used per task	100 ml/task	S	
Model inhalation exposure	1000 mg/task	O	
Room volume	Exposure to vapour / Fugacity concept (equilibrium between product/solution and air, limited to vapour pressure)		
	10 m ³	S	bathroom
REM Surface (treated per task), release area	0,00159 m ² /task	S	drain of bathtub or shower
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0 m ²	S	no direct contact
Contact area between product and skin children	0 m ²	S	no direct contact
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		16,66666667 mg/kg bw		120,4819277 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		0,182648402 mg/kg bw/day		1,320349893 mg/kg bw/day
Highest potential concentration in air		2,04729321 mg/m ³		2,04729321 mg/m ³
Inhalation acute		0,010825501 mg/kg bw		0,022694423 mg/kg bw
Inhalation chronic		0,000118636 mg/kg bw/day		0,000248706 mg/kg bw/day
Dermal acute		0,28 mg/kg bw		0 mg/kg bw
Dermal chronic		0,003068493 mg/kg bw/day		0 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		0,290825501 mg/kg bw		0,022694423 mg/kg bw
Daily intake chronic		0,003187129 mg/kg bw/day		0,000248706 mg/kg bw/day

Scenario 12: cleaning/disinfection: drain cleaner (liquid)**Results / Output**

Mixing & Loading		Task A: not applicable			
Application		Task B: pouring the cleaner into the drain			
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	2,04729321	mg/m³	O	2,04729321	mg/m³
Inhalation	0,028434628	mg/min	O	0,008246042	mg/min
Absorption per task	0,021325971	mg/task	O	0,006184532	mg/task
Exposure per task / Acute Dose	0,000355433	mg/kg bw	O	0,000745124	mg/kg bw
Exposure per day / Chronic Dose	3,89515E-06	mg/kg bw/day	O	8,16575E-06	mg/kg bw/day
Dermal					
Contact area between product and skin	0,0168	m²	S		
Volume of contact	1,68	ml	O		
Quantity of contact (mg)	16,8	mg	O		
Dermal load (mg/cm²)	0,1	mg/cm²	O		
Absorption (mg)	16,8	mg	O		
Exposure per task / Acute Dose	0,28	mg/kg bw	O	no	
Exposure per day / Chronic Dose	0,003068493	mg/kg bw/day	O	no	
Oral					
Exposure / Dose	accidental		S	accidental	
Intake					
Exposure per task / Acute Dose	0,280355433	mg/kg bw	O	0,000745124	mg/kg bw
Exposure per day / Chronic Dose	0,003072388	mg/kg bw/day	O	8,16575E-06	mg/kg bw/day

Post application phase		Task C: residence time + flushing			
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	2,010253014	mg/m³	O	2,010253014	mg/m³
Inhalation	0,027920181	mg/min	O	0,008096852	mg/min
Absorption per task	0,628204067	mg/task	O	0,182179179	mg/task
Exposure per task / Acute Dose	0,010470068	mg/kg bw	O	0,021949299	mg/kg bw
Exposure per day / Chronic Dose	0,00011474	mg/kg bw/day	O	0,00024054	mg/kg bw/day
Dermal					
Exposure per task / Acute Dose	no	mg/kg bw	S	no	mg/kg bw
Exposure per day / Chronic Dose	no	mg/kg bw/day	S	no	mg/kg bw/day
Oral					
Exposure / Dose	accidental		S	accidental	
Intake					
Exposure per task / Acute Dose	0,010470068	mg/kg bw	O	0,021949299	mg/kg bw
Exposure per day / Chronic Dose	0,00011474	mg/kg bw/day	O	0,00024054	mg/kg bw/day

Disposal		Task D: not applicable			
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Scenario 13: cleaning/disinfection: swimming pool water treatment

Scenario description

Name of product	disinfection cleaner	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: simple dilution with water in skimmer			
Number of tasks per year	52 tasks/yr	S	once a week
Duration of task	1 min/task	S	
Quantity of product used per task	100 ml/task	S	
Quantity of water used per task	2 L/task	S	water/volume of skimmer
Quantity of active substance used per task	1000 mg/task	O	
Concentration of active substance in skimmer	500 mg/l	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between skimmer solution and air, limited to vapour pressure)		
Room volume	1 m ³	S	
REM Evaporation from mixture, release area concentrate	0,002 m ²	S	bottle diameter 5 cm [TNSG 2002 p. 252]
REM Evaporation from mixture, release area skimmer	??? m ²	U	surface of skimmer
Model dermal exposure	Direct dermal contact		
Contact area between product (concentrate) and skin	0,0168 m ²	S	Fingertips
Model oral exposure	accidental		

Application

Task B: not applicable

Post application phase

Task C: residence time, swimming			
Number of tasks per year	365 tasks/yr	S	once a day
Duration of task	15 min/task	S	
Quantity of water in swimming pool	90 m ³	S	water of swimming pool (6 x 10 x 1.5 m)
Quantity of active substance used per task	1000 mg/task	O	
Concentration of active substance in swimming pool water	0,011111111 mg/l	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between swimming pool water and air, limited to vapour pressure)		
REM Evaporation from mixture, release area swimming pool	60 m ²	S	6 x 10 m
Room volume (above water surface)	60 m ³	S	6 x 10 x 1 m
Model dermal exposure	Direct dermal contact		
Contact area between swimming pool water and skin	1,94 m ²	S	Whole body
Contact area between swimming pool water and skin children	0,3925 m ²	S	Whole body Children
Model oral exposure	Direct oral ingestion		
Volume of swimming pool water swallowed	20 ml	S	

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		16,66666667 mg/kg bw		120,4819277 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		2,374429224 mg/kg bw/day		17,16454861 mg/kg bw/day
Highest potential concentration in air		0,10256414 mg/m ³		0,10256414 mg/m ³
Inhalation acute		1,78122E-05 mg/kg bw		3,73413E-05 mg/kg bw
Inhalation chronic		2,54272E-06 mg/kg bw/day		5,33052E-06 mg/kg bw/day
Dermal acute		0,280035926 mg/kg bw		5,25435E-05 mg/kg bw
Dermal chronic		0,039926337 mg/kg bw/day		5,25435E-05 mg/kg bw/day
Oral acute		3,7037E-06 mg/kg bw		2,67738E-05 mg/kg bw
Oral chronic		3,7037E-06 mg/kg bw/day		2,67738E-05 mg/kg bw/day
Intake acute		0,280057442 mg/kg bw		0,000116659 mg/kg bw
Daily intake chronic		0,039932583 mg/kg bw/day		8,46478E-05 mg/kg bw/day

Scenario 13: cleaning/disinfection: swimming pool water treatment**Results / Output**

Mixing & Loading					
Task A: simple dilution with water in skimmer					
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	0,10256414	mg/m ³	O	0,10256414	mg/m ³
Inhalation	0,001424502	mg/min	O	0,000413106	mg/min
Absorption per task	0,001068376	mg/task	O	0,000309829	mg/task
Exposure per task / Acute Dose	1,78063E-05	mg/kg bw	O	3,73288E-05	mg/kg bw
Exposure per day / Chronic Dose	2,53678E-06	mg/kg bw/day	O	5,31808E-06	mg/kg bw/day
Dermal					
Contact area between product (concentrate) and skin	0,0168	m ²	S		
Volume of contact	1,68	ml	O		
Quantity of contact (mg)	16,8	mg	O		
Dermal load (mg/cm ²)	0,1	mg/cm ²	O		
Absorption (mg)	16,8	mg	O		
Exposure per task / Acute Dose	0,28	mg/kg bw	O	no	S
Exposure per day / Chronic Dose	0,039890411	mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose	0,280017806	mg/kg bw	O	3,73288E-05	mg/kg bw
Exposure per day / Chronic Dose	0,039892948	mg/kg bw/day	O	5,31808E-06	mg/kg bw/day
Application					
Task B: not applicable					
Post application phase					
Task C: residence time, swimming					
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	2,27944E-06	mg/m ³	O	2,27944E-06	mg/m ³
Inhalation	3,16588E-08	mg/min	O	9,18106E-09	mg/min
Absorption per task	3,56162E-07	mg/task	O	1,03287E-07	mg/task
Exposure per task / Acute Dose	5,93603E-09	mg/kg bw	O	1,24442E-08	mg/kg bw
Exposure per day / Chronic Dose	5,93603E-09	mg/kg bw/day	O	1,24442E-08	mg/kg bw/day
Dermal					
Contact area between swimming pool water and skin	1,94	m ²	S	0,3925	m ²
Volume of contact	194	ml	O	39,25	ml
Quantity of contact (mg)	0,002155556	mg	O	0,000436111	mg
Dermal load (mg/cm ²)	1,11111E-07	mg/cm ²	O	1,11111E-07	mg/cm ²
Absorption (mg)	0,002155556	mg	O	0,000436111	mg
Exposure per task / Acute Dose	3,59259E-05	mg/kg bw	O	5,25435E-05	mg/kg bw
Exposure per day / Chronic Dose	3,59259E-05	mg/kg bw/day	O	5,25435E-05	mg/kg bw/day
Oral					
Absorption per task	0,000222222	mg/task	O	0,000222222	mg/task
Exposure per task / Acute Dose	3,7037E-06	mg/kg bw	O	2,67738E-05	mg/kg bw
Exposure per day / Chronic Dose	3,7037E-06	mg/kg bw/day	O	2,67738E-05	mg/kg bw/day
Intake					
Exposure per task / Acute Dose	3,96356E-05	mg/kg bw	O	7,93297E-05	mg/kg bw
Exposure per day / Chronic Dose	3,96356E-05	mg/kg bw/day	O	7,93297E-05	mg/kg bw/day
Disposal					
Task D: not applicable					

Scenario 14: cleaning/disinfection: textiles, machine wash using laundry compact (liquid/gel)**Scenario description**

			Comments
Name of product	laundry compact liquid	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: fill in			
Number of tasks per year	520 tasks/yr	S	ten times a week, max [AISE (2002) cited in TGD (2003)]
Duration of task	1 min/task	S	< 1 min [AISE (2002) cited in TGD (2003)]
Quantity of product used per task	140 g/task	S	max [AISE (2002) cited in TGD (2003)]
Quantity of active substance used per task	1400 mg/task	O	
Volume of product used per task	140 ml/task	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between product/solution and air, limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
REM Evaporation from mixture, release area	0,002 m ²	S	bottle diameter 5 cm [TNSG 2002 p. 252]
Model dermal exposure	Direct dermal contact		
Contact area between product (concentrate) and skin	0,0168 m ²	S	Fingertips
Model oral exposure	accidental		

Application

Task B: no inhalative or dermal contact during washing procedure -> not applicable

Post application phase

Task C: wearing of clothes			
Number of tasks per year	365 tasks/yr	S	once a day
Duration of task	720 min/task	S	12 hours
Weight fraction of product deposited on fabric	5 %	S	HERA (worst case assumption)
Fabric density	20 mg/cm ²	S	HERA (given for all cotton)
Total weight of fabric	1 kg	S	HERA (Estimation)
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
Model dermal exposure	Indirect dermal contact		
Contact area between textile and skin	1,94 m ²	S	Whole body, HERA: 1.76 m ²
Contact area between textile and skin children	0,3925 m ²	S	Whole body Children
Weight fraction transferred from textile to skin, migration factor	1 %	S	HERA (Vermeire et al. 1993)
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		23,33333333 mg/kg bw		168,6746988 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		33,24200913 mg/kg bw/day		240,3036805 mg/kg bw/day
Highest potential concentration in air		70 mg/m ³		70 mg/m ³
Inhalation acute		1,167022308 mg/kg bw		8,4344805 mg/kg bw
Inhalation chronic		1,167173333 mg/kg bw/day		8,434797108 mg/kg bw/day
Dermal acute		0,284526667 mg/kg bw		0,006620482 mg/kg bw
Dermal chronic		0,403430776 mg/kg bw/day		0,006620482 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		1,447022308 mg/kg bw		8,4344805 mg/kg bw
Daily intake chronic		1,566077443 mg/kg bw/day		8,434797108 mg/kg bw/day

Scenario 14: cleaning/disinfection: textiles, machine wash using laundry compact (liquid/gel)**Results / Output**

Mixing & Loading					
	Task A: fill in				
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	2,048491457	mg/m ³	O	2,048491457	mg/m ³
Inhalation	0,02845127	mg/min	O	0,008250868	mg/min
Absorption per task	0,021338453	mg/task	O	0,006188151	mg/task
Exposure per task / Acute Dose	0,000355641	mg/kg bw	O	0,00074556	mg/kg bw
Exposure per day / Chronic Dose	0,000506666	mg/kg bw/day	O	0,001062168	mg/kg bw/day
Dermal					
Contact area between product (concentrate) and skin	0,0168	m ²	S		
Volume of contact	1,68	ml	O		
Quantity of contact (mg)	16,8	mg	O		
Dermal load (mg/cm ²)	0,1	mg/cm ²	O		
Absorption (mg)	16,8	mg	O		
Exposure per task / Acute Dose	0,28	mg/kg bw	O	no	S
Exposure per day / Chronic Dose	0,39890411	mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose	0,280355641	mg/kg bw	O	0,00074556	mg/kg bw
Exposure per day / Chronic Dose	0,399410776	mg/kg bw/day	O	0,001062168	mg/kg bw/day
Application					
Task B: no inhalative or dermal contact during washing procedure -> not applicable					
Post application phase					
	Task C: wearing of clothes				
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	70	mg/m ³	O	70	mg/m ³
Inhalation	0,972222222	mg/min	O	0,281944444	mg/min
Absorption per task	70	mg/task	S	70	mg/task
Exposure per task / Acute Dose	1,166666667	mg/kg bw	O	8,43373494	mg/kg bw
Exposure per day / Chronic Dose	1,166666667	mg/kg bw/day	O	8,43373494	mg/kg bw/day
Dermal					
Contact area between textile and skin	1,94	m ²	S	0,3925	m ²
Dermal load (mg/cm ²)	0,0014	mg/cm ²	O	0,0014	mg/cm ²
Absorption (mg)	0,2716	mg	O	0,05495	mg
Exposure per task / Acute Dose	0,004526667	mg/kg bw	O	0,006620482	mg/kg bw
Exposure per day / Chronic Dose	0,004526667	mg/kg bw/day	O	0,006620482	mg/kg bw/day
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose	1,166666667	mg/kg bw	S	8,43373494	mg/kg bw
Exposure per day / Chronic Dose	1,166666667	mg/kg bw/day	O	8,43373494	mg/kg bw/day
Disposal					
Task D: not applicable					

Scenario 14b: cleaning/disinfection: textiles, machine wash using laundry additives (liquid)**Scenario description**

			Comments
Name of product	hygiene laundry rinse	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

	Task A: fill in		
Number of tasks per year	208 tasks/yr	S	four times a week, max [AISE (2002) cited in TGD (2003)]
Duration of task	1 min/task	S	< 1 min [AISE (2002) cited in TGD (2003)]
Quantity of product used per task	100 g/task	S	max [AISE (2002) cited in TGD (2003)]
Quantity of active substance used per task	1000 mg/task	O	
Volume of product used per task	100 ml/task	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between product/solution and air, limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
REM Evaporation from mixture, release area	0,002 m ²	S	bottle diameter 5 cm [TNsG 2002 p. 252]
Model dermal exposure	Direct dermal contact		
Contact area between product (concentrate) and skin	0,0168 m ²	S	Fingertips
Model oral exposure	accidental		

Application

Task B: no inhalative or dermal contact during washing procedure -> not applicable

Post application phase

	Task C: wearing of clothes		
Number of tasks per year	208 tasks/yr	S	four times a week
Duration of task	720 min/task	S	12 hours
Weight fraction of product deposited on fabric	5 %	S	HERA (worst case assumption)
Fabric density	20 mg/cm ²	S	HERA (given for all cotton)
Total weight of fabric	1 kg	S	HERA (Estimation)
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
Model dermal exposure	Indirect dermal contact		
Contact area between textile and skin	1,94 m ²	S	Whole body, HERA: 1.76 m ²
Contact area between textile and skin children	0,3925 m ²	S	Whole body Children
Weight fraction transferred from textile to skin, migration factor	1 %	S	HERA (Vermeire et al. 1993)
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		16,6666667 mg/kg bw		120,4819277 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		9,497716895 mg/kg bw/day		68,65819442 mg/kg bw/day
Highest potential concentration in air		50 mg/m ³		50 mg/m ³
Inhalation acute		0,833688766 mg/kg bw		6,02484151 mg/kg bw
Inhalation chronic		0,475088393 mg/kg bw/day		3,43333434 mg/kg bw/day
Dermal acute		0,283233333 mg/kg bw		0,004728916 mg/kg bw
Dermal chronic		0,161404201 mg/kg bw/day		0,002694834 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		1,113688766 mg/kg bw		6,02484151 mg/kg bw
Daily intake chronic		0,634650037 mg/kg bw/day		3,43333434 mg/kg bw/day

Scenario 14b: cleaning/disinfection: textiles, machine wash using laundry additives (liquid)**Results / Output**

Mixing & Loading					
Task A: fill in					
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	2,04729321 mg/m ³	O		2,04729321 mg/m ³	O
Inhalation	0,028434628 mg/min	O		0,008246042 mg/min	O
Absorption per task	0,021325971 mg/task	O		0,006184532 mg/task	O
Exposure per task / Acute Dose	0,000355433 mg/kg bw	O		0,000745124 mg/kg bw	O
Exposure per day / Chronic Dose	0,000202548 mg/kg bw/day	O		0,000424619 mg/kg bw/day	O
Dermal					
Contact area between product (concentrate) and skin	0,0168 m ²	S			
Volume of contact	1,68 ml	O			
Quantity of contact (mg)	16,8 mg	O			
Dermal load (mg/cm ²)	0,1 mg/cm ²	O			
Absorption (mg)	16,8 mg	O			
Exposure per task / Acute Dose	0,28 mg/kg bw	O	no		S
Exposure per day / Chronic Dose	0,159561644 mg/kg bw/day	O	no		S
Oral					
Exposure / Dose	accidental	S	accidental		S
Intake					
Exposure per task / Acute Dose	0,280355433 mg/kg bw	O		0,000745124 mg/kg bw	O
Exposure per day / Chronic Dose	0,159764192 mg/kg bw/day	O		0,000424619 mg/kg bw/day	O
Application					
Task B: no inhalative or dermal contact during washing procedure -> not applicable					
Post application phase					
Task C: wearing of clothes					
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	50 mg/m ³	O		50 mg/m ³	O
Inhalation	0,694444444 mg/min	O		0,201388889 mg/min	O
Absorption per task	50 mg/task	S		50 mg/task	S
Exposure per task / Acute Dose	0,833333333 mg/kg bw	O		6,024096386 mg/kg bw	O
Exposure per day / Chronic Dose	0,474885845 mg/kg bw/day	O		3,432909721 mg/kg bw/day	O
Dermal					
Contact area between textile and skin	1,94 m ²	S		0,3925 m ²	S
Dermal load (mg/cm ²)	0,001 mg/cm ²	O		0,001 mg/cm ²	O
Absorption (mg)	0,194 mg	O		0,03925 mg	O
Exposure per task / Acute Dose	0,003233333 mg/kg bw	O		0,004728916 mg/kg bw	O
Exposure per day / Chronic Dose	0,001842557 mg/kg bw/day	O		0,002694834 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental	S	accidental		S
Intake					
Exposure per task / Acute Dose	0,833333333 mg/kg bw	S		6,024096386 mg/kg bw	S
Exposure per day / Chronic Dose	0,474885845 mg/kg bw/day	O		3,432909721 mg/kg bw/day	O
Disposal					
Task D: not applicable					

Scenario 15: cleaning/disinfection: textiles, hand wash using laundry compact (liquid/gel)

Scenario description

Name of product	laundry compact liquid	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: simple dilution with water in vessel			
Number of tasks per year	520 tasks/yr	S	ten times a week, max [AISE (2002) cited in TGD (2003)]
Duration of task	1 min/task	S	
Quantity of water used per task	20 L/task	S	50% of sink volume (40x40x25 cm)
Quantity of product used per task	200 g/task	S	0.1 - 1% [AISE (2002) cited in TGD (2003)]
Quantity of active substance used per task	2000 mg/task	O	
Concentration of active substance in washing solution	100 mg/l	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between washing solution and air, limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
REM Evaporation from mixture, release area concentrate	0,002 m ²	S	bottle diameter 5 cm [TNSG 2002 p. 252]
REM Evaporation from mixture, release area washing solution	0,16 m ²	S	surface vessel (40 x 40 cm)
Model dermal exposure	Direct dermal contact		
Contact area between product (concentrate) and skin	0,0168 m ²	S	Fingertips
Model oral exposure	accidental		

Application

Task B: washing the textiles			
Number of tasks per year	520 tasks/yr	S	ten times a week, max [AISE (2002) cited in TGD (2003)]
Duration of task	10 min/task	S	[AISE (2002) cited in TGD (2003)]
Quantity of water used per task	20 L/task	S	50% of sink volume (40x40x25 cm)
Quantity of product used per task	200 g/task	S	0.1 - 1% [AISE (2002) cited in TGD (2003)]
Quantity of active substance used per task	2000 mg/task	O	
Concentration of active substance in washing solution	100 mg/l	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between washing solution and air, limited to vapour pressure)		
Room volume	10 m ³	S	Bathroom
REM Evaporation from mixture, release area washing solution	0,16 m ²	S	surface vessel (40 x 40 cm)
Model dermal exposure	Direct dermal contact		
Contact area between washing solution and skin	0,198 m ²	S	Forearms, Hands
Model oral exposure	accidental		

Post application phase

Task C: wearing of clothes			
Number of tasks per year	365 tasks/yr	S	once a day
Duration of task	720 min/task	S	12 hours
Weight fraction of product deposited on fabric	5 %	S	HERA (worst case assumption)
Fabric density	20 mg/cm ²	S	HERA (given for all cotton)
Total weight of fabric	1 kg	S	HERA (Estimation)
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
Model dermal exposure	Indirect dermal contact		
Contact area between textile and skin	1,94 m ²	S	Whole body, HERA: 1.76 m ²
Contact area between textile and skin children	0,3925 m ²	S	Whole body Children
Weight fraction transferred from textile to skin, migration factor	1 %	S	HERA (Vermeire et al. 1993)
Model oral exposure	accidental		

Disposal

Task D: excessive washing solution is disposed to the main drainage			
Number of tasks per year	520 tasks/yr	S	ten times a week, max [AISE (2002) cited in TGD (2003)]
Duration of task	1 min/task	S	
Quantity of water disposed per task	20 L/task	S	50% sink 40x40x25 cm
Quantity of product disposed per task	190 g/task	S	0.1 - 1% [AISE (2002) cited in TGD (2003)]
Quantity of active substance disposed per task	1900 mg/task	S	
Concentration of active substance in washing solution	100 mg/l	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between washing solution and air, limited to vapour pressure)		
Room volume	1 m ³	S	
REM Evaporation from mixture, release area washing solution	0,16 m ²	S	surface vessel (40 x 40 cm)
Model dermal exposure	Direct dermal contact		
Contact area between washing solution and skin	0,198 m ²	S	Hands, Forearms
Model oral exposure	accidental		

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		33,33333333 mg/kg bw		240,9638554 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		47,48858447 mg/kg bw/day		343,2909721 mg/kg bw/day
Highest potential concentration in air		100 mg/m ³		100 mg/m ³
Inhalation acute		1,666709224 mg/kg bw		12,04828199 mg/kg bw
Inhalation chronic		1,666727297 mg/kg bw/day		12,04831988 mg/kg bw/day
Dermal acute		0,352466667 mg/kg bw		0,009457831 mg/kg bw
Dermal chronic		0,499398174 mg/kg bw/day		0,009457831 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		2,012709224 mg/kg bw		12,04828199 mg/kg bw
Daily intake chronic		2,159658804 mg/kg bw/day		12,04831988 mg/kg bw/day

Scenario 15: cleaning/disinfection: textiles, hand wash using laundry compact (liquid/gel)**Results / Output**

Task A: simple dilution with water in vessel					
	Primary exposure	User	Secondary exposure	Bystander	
Mixing & Loading					
Inhalation					
Concentration of potential exposure	0,020514722 mg/m ³	O	0,020514722 mg/m ³	O	
Inhalation	0,000284927 mg/min	O	8,26287E-05 mg/min	O	
Absorption per task	0,000213695 mg/task	O	6,19716E-05 mg/task	O	
Exposure per task / Acute Dose	3,56158E-06 mg/kg bw	O	7,46645E-06 mg/kg bw	O	
Exposure per day / Chronic Dose	5,07404E-06 mg/kg bw/day	O	1,06371E-05 mg/kg bw/day	O	
Dermal					
Contact area between product (concentrate) and skin	0,0168 m ²	S			
Volume of contact	1,68 ml	O			
Quantity of contact (mg)	16,8 mg	O			
Dermal load (mg/cm ²)	0,1 mg/cm ²	O			
Absorption (mg)	16,8 mg	O			
Exposure per task / Acute Dose	0,28 mg/kg bw	O	no		S
Exposure per day / Chronic Dose	0,39890411 mg/kg bw/day	O	no		S
Oral					
Exposure / Dose	accidental	S	accidental		S
Intake					
Exposure per task / Acute Dose	0,280003562 mg/kg bw	O	7,46645E-06 mg/kg bw	O	
Exposure per day / Chronic Dose	0,398909184 mg/kg bw/day	O	1,06371E-05 mg/kg bw/day	O	

Task B: washing the textiles					
	Primary exposure	User	Secondary exposure	Bystander	
Application					
Inhalation					
Concentration of potential exposure	0,020512828 mg/m ³	O	0,020512828 mg/m ³	O	
Inhalation	0,0002849 mg/min	O	8,26211E-05 mg/min	O	
Absorption per task	0,002136753 mg/task	O	0,000619658 mg/task	O	
Exposure per task / Acute Dose	3,56125E-05 mg/kg bw	O	7,46576E-05 mg/kg bw	O	
Exposure per day / Chronic Dose	5,07357E-05 mg/kg bw/day	O	0,000106362 mg/kg bw/day	O	
Dermal					
Contact area between washing solution and skin	0,198 m ²	S			
Volume of contact	19,8 ml	O			
Quantity of contact (mg)	1,98 mg	O			
Dermal load (mg/cm ²)	0,001 mg/cm ²	O			
Absorption (mg)	1,98 mg	O			
Exposure per task / Acute Dose	0,033 mg/kg bw	O	no		S
Exposure per day / Chronic Dose	0,047013699 mg/kg bw/day	O	no		S
Oral					
Exposure / Dose	accidental	S	accidental		S
Intake					
Exposure per task / Acute Dose	0,033035613 mg/kg bw	O	7,46576E-05 mg/kg bw	O	
Exposure per day / Chronic Dose	0,047064434 mg/kg bw/day	O	0,000106362 mg/kg bw/day	O	

Task C: wearing of clothes					
	Primary exposure	User	Secondary exposure	Bystander	
Post application phase					
Inhalation					
Concentration of potential exposure	100 mg/m ³	O	100 mg/m ³	O	
Inhalation	1,388888889 mg/min	O	0,402777778 mg/min	O	
Absorption per task	100 mg/task	S	100 mg/task	S	
Exposure per task / Acute Dose	1,666666667 mg/kg bw	O	12,04819277 mg/kg bw	O	
Exposure per day / Chronic Dose	1,666666667 mg/kg bw/day	O	12,04819277 mg/kg bw/day	O	
Dermal					
Contact area between textile and skin	1,94 m ²	S	0,3925 m ²	S	
Dermal load (mg/cm ²)	0,002 mg/cm ²	O	0,002 mg/cm ²	O	
Absorption (mg)	0,388 mg	O	0,0785 mg	O	
Exposure per task / Acute Dose	0,006466667 mg/kg bw	O	0,009457831 mg/kg bw	O	
Exposure per day / Chronic Dose	0,006466667 mg/kg bw/day	O	0,009457831 mg/kg bw/day	O	
Oral					
Exposure / Dose	accidental	S	accidental		S
Intake					
Exposure per task / Acute Dose	1,666666667 mg/kg bw	S	12,04819277 mg/kg bw	S	
Exposure per day / Chronic Dose	1,666666667 mg/kg bw/day	O	12,04819277 mg/kg bw/day	O	

Task D: excessive washing solution is disposed to the main drainage					
	Primary exposure	User	Secondary exposure	Bystander	
Disposal					
Inhalation					
Concentration of potential exposure	0,019488986 mg/m ³	O	0,019488986 mg/m ³	O	
Inhalation	0,00027068 mg/min	O	7,84973E-05 mg/min	O	
Absorption per task	0,00020301 mg/task	O	5,8873E-05 mg/task	O	
Exposure per task / Acute Dose	3,3835E-06 mg/kg bw	O	7,09313E-06 mg/kg bw	O	
Exposure per day / Chronic Dose	4,82034E-06 mg/kg bw/day	O	1,01053E-05 mg/kg bw/day	O	
Dermal					
Contact area between washing solution and skin	0,198 m ²	S			
Volume of contact	19,8 ml	O			
Quantity of contact (mg)	1,98 mg	O			
Dermal load (mg/cm ²)	0,001 mg/cm ²	O			
Absorption (mg)	1,98 mg	O			
Exposure per task / Acute Dose	0,033 mg/kg bw	O	no		S
Exposure per day / Chronic Dose	0,047013699 mg/kg bw/day	O	no		S
Oral					
Exposure / Dose	accidental	S	accidental		S
Intake					
Exposure per task / Acute Dose	0,033003384 mg/kg bw	O	7,09313E-06 mg/kg bw	O	
Exposure per day / Chronic Dose	0,047018519 mg/kg bw/day	O	1,01053E-05 mg/kg bw/day	O	

Scenario 15b: cleaning/disinfection: textiles, hand wash using laundry additive (liquid)

Scenario description

Name of product	hygiene laundry rinse	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: simple dilution with water in vessel			
Number of tasks per year	208 tasks/yr	S	four times a week, max [AISE (2002) cited in TGD (2003)]
Duration of task	1 min/task	S	
Quantity of water used per task	20 L/task	S	50% sink 40x40x25 cm
Quantity of product used per task	200 g/task	S	0.1 - 1% [AISE (2002) cited in TGD (2003)]
Quantity of active substance used per task	2000 mg/task	O	
Concentration of active substance in washing solution	100 mg/l	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between washing solution and air, limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
REM Evaporation from mixture, release area concentrate	0,002 m ²	S	bottle diameter 5 cm [TNSG 2002 p. 252]
REM Evaporation from mixture, release area washing solution	0,16 m ²	S	surface vessel (40 x 40 cm)
Model dermal exposure	Direct dermal contact		
Contact area between product (concentrate) and skin	0,0168 m ²	S	Fingertips
Model oral exposure	accidental		

Application

Task B: washing the textiles			
Number of tasks per year	208 tasks/yr	S	four times a week, max [AISE (2002) cited in TGD (2003)]
Duration of task	10 min/task	S	[AISE (2002) cited in TGD (2003)]
Quantity of water used per task	20 L/task	S	50% of sink volume (40x40x25 cm)
Quantity of product used per task	200 g/task	S	0.1 - 1% [AISE (2002) cited in TGD (2003)]
Quantity of active substance used per task	2000 mg/task	O	
Concentration of active substance in washing solution	100 mg/l	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between washing solution and air, limited to vapour pressure)		
Room volume	10 m ³	S	Bathroom
REM Evaporation from mixture, release area washing solution	0,16 m ²	S	surface vessel (40 x 40 cm)
Model dermal exposure	Direct dermal contact		
Contact area between washing solution and skin	0,198 m ²	S	Forearms, Hands
Model oral exposure	accidental		

Post application phase

Task C: wearing of clothes			
Number of tasks per year	208 tasks/yr	S	four times a week
Duration of task	720 min/task	S	12 hours
Weight fraction of product deposited on fabric	5 %	S	HERA (worst case assumption)
Fabric density	20 mg/cm ²	S	HERA (given for all cotton)
Total weight of fabric	1 kg	S	HERA (Estimation)
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
Model dermal exposure	Indirect dermal contact		
Contact area between textile and skin	1,94 m ²	S	Whole body, HERA: 1.76 m ²
Contact area between textile and skin children	0,3925 m ²	S	Whole body Children
Weight fraction transferred from textile to skin, migration factor	1 %	S	HERA (Vermeire et al. 1993)
Model oral exposure	accidental		

Disposal

Task D: excessive washing solution is disposed to the main drainage			
Number of tasks per year	208 tasks/yr	S	four times a week, max [AISE (2002) cited in TGD (2003)]
Duration of task	1 min/task	S	
Quantity of water disposed per task	20 L/task	S	50% of sink volume (40x40x25 cm)
Quantity of product disposed per task	190 g/task	S	0.1 - 1% [AISE (2002) cited in TGD (2003)]
Quantity of active substance disposed per task	1900 mg/task	S	
Concentration of active substance in washing solution	100 mg/l	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between washing solution and air, limited to vapour pressure)		
Room volume	1 m ³	S	
REM Evaporation from mixture, release area washing solution	0,16 m ²	S	surface vessel (40 x 40 cm)
Model dermal exposure	Direct dermal contact		
Contact area between washing solution and skin	0,198 m ²	S	Hands, Forearms
Model oral exposure	accidental		

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		33,33333333 mg/kg bw		240,9638554 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		18,99543379 mg/kg bw/day		137,3163888 mg/kg bw/day
Highest potential concentration in air		100 mg/m ³		100 mg/m ³
Inhalation acute		1,666709224 mg/kg bw		12,04828199 mg/kg bw
Inhalation chronic		0,949795942 mg/kg bw/day		6,865870284 mg/kg bw/day
Dermal acute		0,352466667 mg/kg bw		0,009457831 mg/kg bw
Dermal chronic		0,200857717 mg/kg bw/day		0,005389668 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		2,012709224 mg/kg bw		12,04828199 mg/kg bw
Daily intake chronic		1,146968544 mg/kg bw/day		6,865870284 mg/kg bw/day

Scenario 15b: cleaning/disinfection: textiles, hand wash using laundry additive (liquid)**Results / Output**

Mixing & Loading		Task A: simple dilution with water in vessel			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		0,020514722 mg/m ³	O	0,020514722 mg/m ³	O
Inhalation		0,000284927 mg/min	O	8,26287E-05 mg/min	O
Absorption per task		0,000213695 mg/task	O	6,19716E-05 mg/task	O
Exposure per task / Acute Dose		3,56158E-06 mg/kg bw	O	7,46645E-06 mg/kg bw	O
Exposure per day / Chronic Dose		2,02961E-06 mg/kg bw/day	O	4,25486E-06 mg/kg bw/day	O
Dermal					
Contact area between product (concentrate) and skin		0,0168 m ²	S		
Volume of contact		1,68 ml	O		
Quantity of contact (mg)		16,8 mg	O		
Dermal load (mg/cm ²)		0,1 mg/cm ²	O		
Absorption (mg)		16,8 mg	O		
Exposure per task / Acute Dose		0,28 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		0,159561644 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,280003562 mg/kg bw	O	7,46645E-06 mg/kg bw	O
Exposure per day / Chronic Dose		0,159563673 mg/kg bw/day	O	4,25486E-06 mg/kg bw/day	O

Application		Task B: washing the textiles			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		0,020512828 mg/m ³	O	0,020512828 mg/m ³	O
Inhalation		0,0002849 mg/min	O	8,26211E-05 mg/min	O
Absorption per task		0,002136753 mg/task	O	0,000619658 mg/task	O
Exposure per task / Acute Dose		3,56125E-05 mg/kg bw	O	7,46576E-05 mg/kg bw	O
Exposure per day / Chronic Dose		2,02943E-05 mg/kg bw/day	O	4,25446E-05 mg/kg bw/day	O
Dermal					
Contact area between washing solution and skin		0,198 m ²	S		
Volume of contact		19,8 ml	O		
Quantity of contact (mg)		1,98 mg	O		
Dermal load (mg/cm ²)		0,001 mg/cm ²	O		
Absorption (mg)		1,98 mg	O		
Exposure per task / Acute Dose		0,033 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		0,018805479 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,033035613 mg/kg bw	O	7,46576E-05 mg/kg bw	O
Exposure per day / Chronic Dose		0,018825774 mg/kg bw/day	O	4,25446E-05 mg/kg bw/day	O

Post application phase		Task C: wearing of clothes			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		100 mg/m ³	O	100 mg/m ³	O
Inhalation		1,388888889 mg/min	O	0,402777778 mg/min	O
Absorption per task		100 mg/task	S	100 mg/task	S
Exposure per task / Acute Dose		1,666666667 mg/kg bw	O	12,04819277 mg/kg bw	O
Exposure per day / Chronic Dose		0,949771689 mg/kg bw/day	O	6,865819442 mg/kg bw/day	O
Dermal					
Contact area between textile and skin		1,94 m ²	S	0,3925 m ²	S
Dermal load (mg/cm ²)		0,002 mg/cm ²	O	0,002 mg/cm ²	O
Absorption (mg)		0,388 mg	O	0,0785 mg	O
Exposure per task / Acute Dose		0,006466667 mg/kg bw	O	0,009457831 mg/kg bw	O
Exposure per day / Chronic Dose		0,003685114 mg/kg bw/day	O	0,005389668 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		1,666666667 mg/kg bw	S	12,04819277 mg/kg bw	S
Exposure per day / Chronic Dose		0,949771689 mg/kg bw/day	O	6,865819442 mg/kg bw/day	O

Disposal		Task D: excessive washing solution is disposed to the main drainage			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		0,019488986 mg/m ³	O	0,019488986 mg/m ³	O
Inhalation		0,00027068 mg/min	O	7,84973E-05 mg/min	O
Absorption per task		0,00020301 mg/task	O	5,8873E-05 mg/task	O
Exposure per task / Acute Dose		3,3835E-06 mg/kg bw	O	7,09313E-06 mg/kg bw	O
Exposure per day / Chronic Dose		1,92813E-06 mg/kg bw/day	O	4,04211E-06 mg/kg bw/day	O
Dermal					
Contact area between washing solution and skin		0,198 m ²	S		
Volume of contact		19,8 ml	O		
Quantity of contact (mg)		1,98 mg	O		
Dermal load (mg/cm ²)		0,001 mg/cm ²	O		
Absorption (mg)		1,98 mg	O		
Exposure per task / Acute Dose		0,033 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		0,018805479 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,033003384 mg/kg bw	O	7,09313E-06 mg/kg bw	O
Exposure per day / Chronic Dose		0,018807408 mg/kg bw/day	O	4,04211E-06 mg/kg bw/day	O

Scenario 16: textiles, wearing clothes with antimicrobial protection**Scenario description**

Name of product	antimicrobial protection	S	
User	Consumer	S	
User 2	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Task B: not applicable

Post application phase

Number of tasks per year	52 tasks/yr	S	once a week
Duration of task	720 min/task	S	12 hours
Loading of fabric	500 mg/kg	S	
Fabric density	20 mg/cm ²	S	HERA (given for all cotton)
Total weight of fabric	1 kg	S	HERA (Estimation)
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
Model dermal exposure	Indirect dermal contact		
Contact area between textile and skin	1,94 m ²	S	Whole body, HERA: 1.76 m ²
Contact area between textile and skin children	0,3925 m ²	S	Whole body Children
Weight fraction transferred from textile to skin, migration factor	1 %	S	HERA (Vermeire et al. 1993)
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	User 2	Children
Highest potential exposure acute (all amount used is absorbed)		8,333333333 mg/kg bw		60,24096386 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		1,187214612 mg/kg bw/day		8,582274303 mg/kg bw/day
Highest potential concentration in air		205,1493218 mg/m ³		205,1493218 mg/m ³
Inhalation acute		8,333333333 mg/kg bw		53,75900903 mg/kg bw
Inhalation chronic		1,187214612 mg/kg bw/day		7,658817725 mg/kg bw/day
Dermal acute		0,032333333 mg/kg bw		0,047289157 mg/kg bw
Dermal chronic		0,004606393 mg/kg bw/day		0,006737085 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		8,333333333 mg/kg bw		53,80629819 mg/kg bw
Daily intake chronic		1,187214612 mg/kg bw/day		7,665554811 mg/kg bw/day

Scenario 16: textiles, wearing clothes with antimicrobial protection**Results / Output**

Mixing & Loading		Task A: not applicable			
Application		Task B: not applicable			
Post application phase		Task C: wearing of clothes			
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	205,1493218 mg/m ³	S		205,1493218 mg/m ³	S
Inhalation	2,849296137 mg/min	O		0,82629588 mg/min	O
Absorption per task	500 mg/task	S		446,199775 mg/task	O
Exposure per task / Acute Dose	8,333333333 mg/kg bw	O		53,75900903 mg/kg bw	O
Exposure per day / Chronic Dose	1,187214612 mg/kg bw/day	O		7,658817725 mg/kg bw/day	O
Dermal					
Contact area between textile and skin	1,94 m ²	S		0,3925 m ²	S
Dermal load (mg/cm ²)	0,01 mg/cm ²	O		0,01 mg/cm ²	O
Absorption (mg)	1,94 mg	O		0,3925 mg	O
Exposure per task / Acute Dose	0,032333333 mg/kg bw	O		0,047289157 mg/kg bw	O
Exposure per day / Chronic Dose	0,004606393 mg/kg bw/day	O		0,006737085 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental	S		accidental	S
Intake					
Exposure per task / Acute Dose	8,333333333 mg/kg bw	S		53,80629819 mg/kg bw	O
Exposure per day / Chronic Dose	1,187214612 mg/kg bw/day	O		7,665554811 mg/kg bw/day	O
Disposal		Task D: not applicable			

Scenario 17: cleaning/disinfection: machine dishwashing (tablet, powder)**Scenario description**

			Comments
Name of product	diswashing powder	S	
Physical state product (liquid/solid)	solid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: fill in			
Number of tasks per year	365 tasks/yr	S	once a day, max [AISE (2002) cited in TGD (2003)]
Duration of task	1 min/task	S	< 1 min [AISE (2002) cited in TGD (2003)]
Quantity of product used per task	40 g/task	S	max [AISE (2002) cited in TGD (2003)]
Quantity of active substance used per task	400 mg/task	O	
Volume of product used per task	40 ml/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
REM Evaporation from mixture, release area	0,002 m ²	S	bottle diameter 5 cm [TNsG 2002 p. 252]
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,0168 m ²	S	Fingertips
Contact amount between active substance and skin	0,4 mg/task	S	0.1% of whole amount used [see HERA Perborate]
Model oral exposure	accidental		

Application

Task B: no inhalative or dermal contact during dishwashing procedure -> not applicable

Post application phase

Task C: Substance deposited on surface of dishes, then swallowed via food or drink			
Number of tasks per year	365 tasks/yr	S	HERA
Wash cycles per wash	4 -	S	HERA (Miele 2002): 3-4 wash cycles
Amount of water per wash cycle	4,8 L	S	HERA (Miele 2002): 4.6-4.8 Litres
Amount of wash-solution transferred to next wash cycle	0,6 L	S	HERA (Miele 2002): 0.5-0.6 Litres
Concentration of active substance in wash-solution (last cycle)	0,162760417 mg/l	O	
Model inhalation exposure	Exposure to vapour / negligible compared with oral exposure		
Model dermal exposure	Direct dermal contact / negligible compared with oral exposure		
Model oral exposure	Indirect oral ingestion		
Amount of liquor remaining on surface	5,5E-04 ml/cm ²	S	HERA (O.J. France 1990)
Load of active substance on surface of article	9,0E-08 mg/cm ²	O	
Area of dishes/eating utensils in daily contact with food	5400 cm ²	S	HERA (O.J. France 1990)
Weight fraction transferred from article and ingested	100 %	S	HERA (worst-case assumption)

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		6,666666667 mg/kg bw		48,19277108 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		6,666666667 mg/kg bw/day		48,19277108 mg/kg bw/day
Highest potential concentration in air		205,1493218 mg/m ³		205,1493218 mg/m ³
Inhalation acute		0,035616202 mg/kg bw		0,07466529 mg/kg bw
Inhalation chronic		0,035616202 mg/kg bw/day		0,07466529 mg/kg bw/day
Dermal acute		0,006666667 mg/kg bw		0 mg/kg bw
Dermal chronic		0,006666667 mg/kg bw/day		0 mg/kg bw/day
Oral acute		8,05664E-06 mg/kg bw		5,82408E-05 mg/kg bw
Oral chronic		8,05664E-06 mg/kg bw/day		5,82408E-05 mg/kg bw/day
Intake acute		0,042290925 mg/kg bw		0,074723531 mg/kg bw
Daily intake chronic		0,042290925 mg/kg bw/day		0,074723531 mg/kg bw/day

Scenario 17: cleaning/disinfection: machine dishwashing (tablet, powder)**Results / Output**

Mixing & Loading		Task A: fill in			
Inhalation					
Concentration of potential exposure	205,1493218 mg/m³	S		205,1493218 mg/m³	S
Inhalation	2,849296137 mg/min	O		0,82629588 mg/min	O
Absorption per task	2,136972102 mg/task	O		0,61972191 mg/task	O
Exposure per task / Acute Dose	0,035616202 mg/kg bw	O		0,07466529 mg/kg bw	O
Exposure per day / Chronic Dose	0,035616202 mg/kg bw/day	O		0,07466529 mg/kg bw/day	O
Dermal					
Contact area between product and skin	0,0168 m²	S			
Quantity of contact	0,4 mg	S			
Dermal load (mg/cm²)	0,002380952 mg/cm²	O			
Absorption (mg)	0,4 mg	O			
Exposure per task / Acute Dose	0,006666667 mg/kg bw	O	no		S
Exposure per day / Chronic Dose	0,006666667 mg/kg bw/day	O	no		S
Oral					
Exposure / Dose	accidental	S		accidental	S
Intake					
Exposure per task / Acute Dose	0,042282868 mg/kg bw	O		0,07466529 mg/kg bw	O
Exposure per day / Chronic Dose	0,042282868 mg/kg bw/day	O		0,07466529 mg/kg bw/day	O

Application		Task B: no inhalative or dermal contact during dishwashing procedure -> not applicable			
Post application phase		Task C: Substance deposited on surface of dishes, then swallowed via food or drink			
	Inhalation	Primary exposure	User	Secondary exposure	Bystander
Exposure per task / Acute Dose	negligible	mg/kg bw	S	negligible	mg/kg bw
Exposure per day / Chronic Dose	negligible	mg/kg bw/day	S	negligible	mg/kg bw/day
Dermal					
Exposure per task / Acute Dose	negligible	mg/kg bw	S	negligible	mg/kg bw
Exposure per day / Chronic Dose	negligible	mg/kg bw/day	S	negligible	mg/kg bw/day
Oral					
Absorption per task	0,000483398 mg/task	O		0,000483398 mg/task	O
Exposure per task / Acute Dose	8,05664E-06 mg/kg bw	O		5,82408E-05 mg/kg bw	O
Exposure per day / Chronic Dose	8,05664E-06 mg/kg bw/day	O		5,82408E-05 mg/kg bw/day	O
Intake					
Exposure per task / Acute Dose	8,05664E-06 mg/kg bw	O		5,82408E-05 mg/kg bw	O
Exposure per day / Chronic Dose	8,05664E-06 mg/kg bw/day	O		5,82408E-05 mg/kg bw/day	O

Disposal		Task D: not applicable			
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Scenario 17b: cleaning/disinfection: machine dishwashing (liquid)

Scenario description

Name of product	diswashing liquid	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: fill in			
Number of tasks per year	365 tasks/yr	S	once a day, max [AISE (2002) cited in TGD (2003)]
Duration of task	1 min/task	S	< 1 min [AISE (2002) cited in TGD (2003)]
Quantity of product used per task	40 g/task	S	max [AISE (2002) cited in TGD (2003)]
Quantity of active substance used per task	400 mg/task	O	
Volume of product used per task	40 ml/task	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between product/solution and air, limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
REM Evaporation from mixture, release area	0,002 m ²	S	bottle diameter 5 cm [TNsG 2002 p. 252]
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,0168 m ²	S	Fingertips
Model oral exposure	accidental		

Application

Task B: no inhalative or dermal contact during dishwashing procedure -> not applicable

Post application phase

Task C: Substance deposited on surface of dishes, then swallowed via food or drink			
Number of tasks per year	365 tasks/yr	S	HERA
Wash cycles per wash	4 -	S	HERA (Miele 2002): 3-4 wash cycles
Amount of water per wash cycle	4,8 L	S	HERA (Miele 2002): 4.6-4.8 Litres
Amount of wash-solution transferred to next wash cycle	0,6 L	S	HERA (Miele 2002): 0.5-0.6 Litres
Concentration of active substance in wash-solution (last cycle)	0,162760417 mg/l	O	
Model inhalation exposure	Exposure to vapour / negligible compared with oral exposure		
Model dermal exposure	Direct dermal contact / negligible compared with oral exposure		
Model oral exposure	Indirect oral ingestion		
Amount of liquor remaining on surface	5,5E-04 ml/cm ²	S	HERA (O.J. France 1990)
Load of active substance on surface of article	9,0E-08 mg/cm ²	O	
Area of dishes/eating utensils in daily contact with food	5400 cm ²	S	HERA (O.J. France 1990)
Weight fraction transferred from article and ingested	100 %	S	HERA (worst-case assumption)

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		6,66666667 mg/kg bw		48,19277108 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		6,66666667 mg/kg bw/day		48,19277108 mg/kg bw/day
Highest potential concentration in air		2,041025344 mg/m ³		2,041025344 mg/m ³
Inhalation acute		0,000354345 mg/kg bw		0,000742843 mg/kg bw
Inhalation chronic		0,000354345 mg/kg bw/day		0,000742843 mg/kg bw/day
Dermal acute		0,28 mg/kg bw		0 mg/kg bw
Dermal chronic		0,28 mg/kg bw/day		0 mg/kg bw/day
Oral acute		8,05664E-06 mg/kg bw		5,82408E-05 mg/kg bw
Oral chronic		8,05664E-06 mg/kg bw/day		5,82408E-05 mg/kg bw/day
Intake acute		0,280362401 mg/kg bw		0,000801084 mg/kg bw
Daily intake chronic		0,280362401 mg/kg bw/day		0,000801084 mg/kg bw/day

Scenario 17b: cleaning/disinfection: machine dishwashing (liquid)**Results / Output**

Mixing & Loading						
Task A: fill in						
Inhalation						
Concentration of potential exposure	2,041025344 mg/m ³	O		2,041025344 mg/m ³	O	
Inhalation	0,028347574 mg/min	O		0,008220797 mg/min	O	
Absorption per task	0,021260681 mg/task	O		0,006165597 mg/task	O	
Exposure per task / Acute Dose	0,000354345 mg/kg bw	O		0,000742843 mg/kg bw	O	
Exposure per day / Chronic Dose	0,000354345 mg/kg bw/day	O		0,000742843 mg/kg bw/day	O	
Dermal						
Contact area between product and skin	0,0168 m ²	S				
Volume of contact	1,68 ml	O				
Quantity of contact	16,8 mg	O				
Dermal load (mg/cm ²)	0,1 mg/cm ²	O				
Absorption (mg)	16,8 mg	O				
Exposure per task / Acute Dose	0,28 mg/kg bw	O	no			S
Exposure per day / Chronic Dose	0,28 mg/kg bw/day	O	no			S
Oral						
Exposure / Dose	accidental	S		accidental		S
Intake						
Exposure per task / Acute Dose	0,280354345 mg/kg bw	O		0,000742843 mg/kg bw	O	
Exposure per day / Chronic Dose	0,280354345 mg/kg bw/day	O		0,000742843 mg/kg bw/day	O	
Application						
Task B: no inhalative or dermal contact during dishwashing procedure -> not applicable						
Post application phase						
Task C: Substance deposited on surface of dishes, then swallowed via food or drink						
	Primary exposure	User		Secondary exposure	Bystander	
Inhalation						
Exposure per task / Acute Dose	negligible	mg/kg bw	S	negligible	mg/kg bw	S
Exposure per day / Chronic Dose	negligible	mg/kg bw/day	S	negligible	mg/kg bw/day	S
Dermal						
Exposure per task / Acute Dose	negligible	mg/kg bw	S	negligible	mg/kg bw	S
Exposure per day / Chronic Dose	negligible	mg/kg bw/day	S	negligible	mg/kg bw/day	S
Oral						
Absorption per task	0,000483398 mg/task	O		0,000483398 mg/task	O	
Exposure per task / Acute Dose	8,05664E-06 mg/kg bw	O		5,82408E-05 mg/kg bw	O	
Exposure per day / Chronic Dose	8,05664E-06 mg/kg bw/day	O		5,82408E-05 mg/kg bw/day	O	
Intake						
Exposure per task / Acute Dose	8,05664E-06 mg/kg bw	O		5,82408E-05 mg/kg bw	O	
Exposure per day / Chronic Dose	8,05664E-06 mg/kg bw/day	O		5,82408E-05 mg/kg bw/day	O	
Disposal						
Task D: not applicable						

Scenario 17c: cleaning/disinfection: hand dishwashing (liquid concentrate)

Scenario description

Name of product	diswashing liquid	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: simple dilution with water in the sink			
Number of tasks per year	1095 tasks/yr	S	three times a day, max [AISE (2002) cited in TGD (2003)]
Duration of task	1 min/task	S	
Quantity of water used per task	20 L/task	S	50% sink 40x40x25 cm
Quantity of product used per task	20 g/task	S	max 5 g/5 L/task [AISE (2002) cited in TGD (2003)]
Quantity of active substance used per task	200 mg/task	O	
Concentration of active substance in dishwashing water	10 mg/l	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between dishwashing solution and air, limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
REM Evaporation from mixture, release area concentrate	0,00002 m ²	S	bottle diameter 0.5 cm
REM Evaporation from mixture, release area dishwashing water	0,16 m ²	S	surface sink 40x40 cm
Model dermal exposure	Direct dermal contact		
Contact area between product (concentrate) and skin	0,0168 m ²	S	Fingertips
Model oral exposure	accidental		

Application

Task B: washing-up dishes			
Number of tasks per year	1095 tasks/yr	S	three times a day, max [AISE (2002) cited in TGD (2003)]
Duration of task	45 min/task	S	max [AISE (2002) cited in TGD (2003)]
Quantity of water used per task	20 L/task	S	50% sink 40x40x25 cm
Quantity of product used per task	20 g/task	S	max 5 g/5 L/task [AISE (2002) cited in TGD (2003)]
Quantity of active substance used per task	200 mg/task	O	
Concentration of active substance in dishwashing water	10 mg/l	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between dishwashing solution and air, limited to vapour pressure)		
Room volume	15 m ³	S	Kitchen
REM Evaporation from mixture, release area dishwashing water	0,16 m ²	S	surface sink 40x40 cm
Model dermal exposure	Direct dermal contact		
Contact area between dishwashing water and skin	0,198 m ²	S	Forearms, Hands [HERA]
Model oral exposure	accidental		

Post application phase

Task C: Substance deposited on surface of dishes, then swallowed via food or drink			
Number of tasks per year	365 tasks/yr	S	HERA
Concentration of active substance in dishwashing water	10 mg/l	O	
Model inhalation exposure	Exposure to vapour / negligible compared with oral exposure		
Model dermal exposure	Direct dermal contact / negligible compared with oral exposure		
Model oral exposure	Indirect oral ingestion		
Amount of liquor remaining on surface	5,5E-04 ml/cm ²	S	HERA (O.J. France 1990)
Percent of liquor left after rinsing	100 %	S	no rinsing
Load of active substance on surface of article	0,0000055 mg/cm ²	O	
Area of dishes/eating utensils in daily contact with food	5400 cm ²	S	HERA (O.J. France 1990)
Weight fraction transferred from article and ingested	100 %	S	HERA (worst-case assumption)

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		3,333333333 mg/kg bw		24,09638554 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		10 mg/kg bw/day		72,28915663 mg/kg bw/day
Highest potential concentration in air		0,002051472 mg/m ³		0,002051472 mg/m ³
Inhalation acute		1,6381E-05 mg/kg bw		3,43409E-05 mg/kg bw
Inhalation chronic		4,9143E-05 mg/kg bw/day		0,000103023 mg/kg bw/day
Dermal acute		0,2833 mg/kg bw		0 mg/kg bw
Dermal chronic		0,8499 mg/kg bw/day		0 mg/kg bw/day
Oral acute		0,000495 mg/kg bw		0,003578313 mg/kg bw
Oral chronic		0,000495 mg/kg bw/day		0,003578313 mg/kg bw/day
Intake acute		0,283811381 mg/kg bw		0,003612654 mg/kg bw
Daily intake chronic		0,850444143 mg/kg bw/day		0,003681336 mg/kg bw/day

Scenario 17c: cleaning/disinfection: hand dishwashing (liquid concentrate)**Results / Output**

Mixing & Loading		Task A: simple dilution with water in the sink				
		Primary exposure	User		Secondary exposure	Bystander
Inhalation						
Concentration of potential exposure		0,002051472	mg/m³	O	0,002051472	mg/m³
Inhalation		2,84927E-05	mg/min	O	8,26287E-06	mg/min
Absorption per task		2,13695E-05	mg/task	O	6,19716E-06	mg/task
Exposure per task / Acute Dose		3,56158E-07	mg/kg bw	O	7,46645E-07	mg/kg bw
Exposure per day / Chronic Dose		1,06848E-06	mg/kg bw/day	O	2,23994E-06	mg/kg bw/day
Dermal						
Contact area between product (concentrate) and skin		0,0168	m²	S		
Volume of contact		1,68	ml	O		
Quantity of contact		16,8	mg	O		
Dermal load (mg/cm²)		0,1	mg/cm²	O		
Absorption (mg)		16,8	mg	O		
Exposure per task / Acute Dose		0,28	mg/kg bw	O	no	
Exposure per day / Chronic Dose		0,84	mg/kg bw/day	O	no	
Oral						
Exposure / Dose	accidental			S	accidental	
Intake						
Exposure per task / Acute Dose		0,280000356	mg/kg bw	O	7,46645E-07	mg/kg bw
Exposure per day / Chronic Dose		0,840001068	mg/kg bw/day	O	2,23994E-06	mg/kg bw/day

Application		Task B: washing-up dishes				
		Primary exposure	User		Secondary exposure	Bystander
Inhalation						
Concentration of potential exposure		0,002051178	mg/m³	O	0,002051178	mg/m³
Inhalation		2,84886E-05	mg/min	O	8,26169E-06	mg/min
Absorption per task		0,00096149	mg/task	O	0,000278832	mg/task
Exposure per task / Acute Dose		1,60248E-05	mg/kg bw	O	3,35942E-05	mg/kg bw
Exposure per day / Chronic Dose		4,80745E-05	mg/kg bw/day	O	0,000100783	mg/kg bw/day
Dermal						
Contact area between dishwashing water and skin		0,198	m²	S		
Volume of contact		19,8	ml	O		
Quantity of contact		0,198	mg	O		
Dermal load (mg/cm²)		0,0001	mg/cm²	O		
Absorption (mg)		0,198	mg	O		
Exposure per task / Acute Dose		0,0033	mg/kg bw	O	no	
Exposure per day / Chronic Dose		0,0099	mg/kg bw/day	O	no	
Oral						
Exposure / Dose	accidental			S	accidental	
Intake						
Exposure per task / Acute Dose		0,003316025	mg/kg bw	O	3,35942E-05	mg/kg bw
Exposure per day / Chronic Dose		0,009948074	mg/kg bw/day	O	0,000100783	mg/kg bw/day

Post application phase		Task C: Substance deposited on surface of dishes, then swallowed via food or drink				
		Primary exposure	User		Secondary exposure	Bystander
Inhalation						
Exposure per task / Acute Dose		negligible	mg/kg bw	S	negligible	mg/kg bw
Exposure per day / Chronic Dose		negligible	mg/kg bw/day	S	negligible	mg/kg bw/day
Dermal						
Exposure per task / Acute Dose		negligible	mg/kg bw	S	negligible	mg/kg bw
Exposure per day / Chronic Dose		negligible	mg/kg bw/day	S	negligible	mg/kg bw/day
Oral						
Absorption per task		0,0297	mg/task	O	0,0297	mg/task
Exposure per task / Acute Dose		0,000495	mg/kg bw	O	0,003578313	mg/kg bw
Exposure per day / Chronic Dose		0,000495	mg/kg bw/day	O	0,003578313	mg/kg bw/day
Intake						
Exposure per task / Acute Dose		0,000495	mg/kg bw	O	0,003578313	mg/kg bw
Exposure per day / Chronic Dose		0,000495	mg/kg bw/day	O	0,003578313	mg/kg bw/day

Disposal		Task D: not applicable				
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Scenario 18: personal care: whole body rinse-off**Scenario description**

Name of product	shower gel	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
User 2	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Task B: shampooing under shower, washing with shower gel

Number of tasks per year	365 tasks/yr	S	once per day [TGD (2003)]
Duration of task	4 min/task	S	ConsExpo
Quantity of product used per task	12 g/task	S	shampoo [TGD (2003)], shower gel 5 g but twice a day
Volume of product used per task	12 ml/task	O	
Quantity of active substance used per task	120 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	1,94 m ²	S	Whole body
Contact area between product and skin children	0,3925 m ²	S	Whole body children
Contact amount between product and skin	12 g/task	S	Whole amount used
Model oral exposure	accidental		

Post application phase

Task C: rinse-off product -> not applicable

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	User 2	Children
Highest potential exposure acute (all amount used is absorbed)		2 mg/kg bw		14,45783133 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		2 mg/kg bw/day		14,45783133 mg/kg bw/day
Highest potential concentration in air		120 mg/m ³		120 mg/m ³
Inhalation acute		0,083333333 mg/kg bw		0,174698795 mg/kg bw
Inhalation chronic		0,083333333 mg/kg bw/day		0,174698795 mg/kg bw/day
Dermal acute		2 mg/kg bw		14,45783133 mg/kg bw
Dermal chronic		2 mg/kg bw/day		14,45783133 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		2 mg/kg bw		14,45783133 mg/kg bw
Daily intake chronic		2 mg/kg bw/day		14,45783133 mg/kg bw/day

Scenario 18: personal care: whole body rinse-off**Results / Output**

Mixing & Loading		Task A: not applicable				
Application		Task B: shampooing under shower, washing with shower gel				
	Primary exposure	User		Secondary exposure	Bystander	
Inhalation						
Concentration of potential exposure		120 mg/m ³	O	120 mg/m ³	O	
Inhalation	1,66666667	mg/min	O	0,483333333	mg/min	O
Absorption per task		5 mg/task	O	1,45 mg/task	O	
Exposure per task / Acute Dose	0,083333333	mg/kg bw	O	0,174698795	mg/kg bw	O
Exposure per day / Chronic Dose	0,083333333	mg/kg bw/day	O	0,174698795	mg/kg bw/day	O
Dermal						
Contact area between product and skin		1,94 m ²	S	0,3925 m ²	S	
Quantity of contact (mg)		120 mg	S	120 mg	S	
Dermal load (mg/cm ²)	0,006185567	mg/cm ²	O	0,030573248	mg/cm ²	O
Absorption (mg)		120 mg	O	120 mg	O	
Exposure per task / Acute Dose		2 mg/kg bw	O	14,45783133	mg/kg bw	O
Exposure per day / Chronic Dose		2 mg/kg bw/day	O	14,45783133	mg/kg bw/day	O
Oral						
Exposure / Dose	accidental		S	accidental	S	
Intake						
Exposure per task / Acute Dose		2 mg/kg bw	S	14,45783133	mg/kg bw	S
Exposure per day / Chronic Dose		2 mg/kg bw/day	O	14,45783133	mg/kg bw/day	O
Post application phase		Task C: rinse-off product -> not applicable				
Disposal		Task D: not applicable				

Scenario 19: personal care: whole body leave-on**Scenario description**

Name of product	body lotion	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
User 2	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application + Post application phase

	Task B: rubbing in body lotion + leave-on		
Number of tasks per year	730 tasks/yr	S	twice per day [TGD (2003), ConsExpo]
Duration of task	720 min/task	S	ConsExpo: 720 min
Quantity of product used per task	7,5 g/task	S	[TGD (2003)], ConsExpo 8 g
Volume of product used per task	7,5 ml/task	O	
Quantity of active substance used per task	75 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	1,94 m ²	S	Whole body
Contact area between product and skin children	0,3925 m ²	S	Whole body children
Contact amount between product and skin	7,5 g/task	S	Whole amount used
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	User 2	Children
Highest potential exposure acute (all amount used is absorbed)		1,25 mg/kg bw		9,036144578 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		2,5 mg/kg bw/day		18,07228916 mg/kg bw/day
Highest potential concentration in air		75 mg/m ³		75 mg/m ³
Inhalation acute		1,25 mg/kg bw		9,036144578 mg/kg bw
Inhalation chronic		2,5 mg/kg bw/day		18,07228916 mg/kg bw/day
Dermal acute		1,25 mg/kg bw		9,036144578 mg/kg bw
Dermal chronic		2,5 mg/kg bw/day		18,07228916 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		1,25 mg/kg bw		9,036144578 mg/kg bw
Daily intake chronic		2,5 mg/kg bw/day		18,07228916 mg/kg bw/day

Scenario 19: personal care: whole body leave-on**Results / Output**

Mixing & Loading		Task A: not applicable			
Application + Post application phase		Task B: rubbing in body lotion + leave-on			
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		75 mg/m ³	O	75 mg/m ³	O
Inhalation	1,041666667	mg/min	O	0,302083333	mg/min
Absorption per task		75 mg/task	S	75 mg/task	S
Exposure per task / Acute Dose		1,25 mg/kg bw	O	9,036144578	mg/kg bw
Exposure per day / Chronic Dose		2,5 mg/kg bw/day	O	18,07228916	mg/kg bw/day
Dermal					
Contact area between product and skin		1,94 m ²	S	0,3925 m ²	S
Quantity of contact (mg)		75 mg	S	75 mg	S
Dermal load (mg/cm ²)	0,003865979	mg/cm ²	O	0,01910828	mg/cm ²
Absorption (mg)		75 mg	O	75 mg	O
Exposure per task / Acute Dose		1,25 mg/kg bw	O	9,036144578	mg/kg bw
Exposure per day / Chronic Dose		2,5 mg/kg bw/day	O	18,07228916	mg/kg bw/day
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		1,25 mg/kg bw	S	9,036144578	mg/kg bw
Exposure per day / Chronic Dose		2,5 mg/kg bw/day	O	18,07228916	mg/kg bw/day
Disposal		Task D: not applicable			

Scenario 20: personal care: head leave-on**Scenario description**

Name of product	hair gel, make-up, after shave	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

	Task B: styling hair with gel		
Number of tasks per year	730 tasks/yr	S	twice per day
Duration of task	5 min/task	S	
Quantity of product used per task	5 g/task	S	hair styling products [TGD (2003)]
Volume of product used per task	5 ml/task	O	
Quantity of active substance used per task	50 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,202 m ²	S	Head (face) + Hands
Contact amount between product and skin	5 g/task	S	Whole amount used
Model oral exposure	accidental		

Post application phase

	Task C: leave on		
Number of tasks per year	730 tasks/yr	S	twice per day
Duration of task	720 min/task	S	12 hours, ConsExpo: 24 hours
Quantity of active substance used per task	50 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0 m ²	S	all product is supposed to be absorbed during application
Contact area between product and skin children	0,01040125 m ²	S	50% Hands children
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		0,833333333 mg/kg bw		6,024096386 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		1,666666667 mg/kg bw/day		12,04819277 mg/kg bw/day
Highest potential concentration in air		50 mg/m ³		50 mg/m ³
Inhalation acute		0,833333333 mg/kg bw		6,024096386 mg/kg bw
Inhalation chronic		1,666666667 mg/kg bw/day		12,04819277 mg/kg bw/day
Dermal acute		0,833333333 mg/kg bw		1,253162651 mg/kg bw
Dermal chronic		1,666666667 mg/kg bw/day		2,506325301 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		0,833333333 mg/kg bw		6,024096386 mg/kg bw
Daily intake chronic		1,666666667 mg/kg bw/day		12,04819277 mg/kg bw/day

Scenario 20: personal care: head leave-on**Results / Output**

Mixing & Loading		Task A: not applicable			
Application		Task B: styling hair with gel			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		50 mg/m ³	O	50 mg/m ³	O
Inhalation		0,694444444 mg/min	O	0,201388889 mg/min	O
Absorption per task		2,604166667 mg/task	O	0,755208333 mg/task	O
Exposure per task / Acute Dose		0,043402778 mg/kg bw	O	0,090988956 mg/kg bw	O
Exposure per day / Chronic Dose		0,086805556 mg/kg bw/day	O	0,181977912 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,202 m ²	S		
Quantity of contact (mg)		50 mg	S		
Dermal load (mg/cm ²)		0,024752475 mg/cm ²	O		
Absorption (mg)		50 mg	O		
Exposure per task / Acute Dose		0,833333333 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		1,666666667 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose		accidental	S	accidental	S
Intake					
Exposure per task / Acute Dose		0,833333333 mg/kg bw	S	0,090988956 mg/kg bw	O
Exposure per day / Chronic Dose		1,666666667 mg/kg bw/day	O	0,181977912 mg/kg bw/day	O
Post application phase		Task C: leave on			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		50 mg/m ³	O	50 mg/m ³	O
Inhalation		0,694444444 mg/min	O	0,201388889 mg/min	O
Absorption per task		50 mg/task	S	50 mg/task	S
Exposure per task / Acute Dose		0,833333333 mg/kg bw	O	6,024096386 mg/kg bw	O
Exposure per day / Chronic Dose		1,666666667 mg/kg bw/day	O	12,04819277 mg/kg bw/day	O
Dermal					
Contact area between product and skin				0,01040125 m ²	S
Volume of contact				1,040125 ml	O
Quantity of contact (mg)				10,40125 mg	O
Dermal load (mg/cm ²)				0,1 mg/cm ²	O
Absorption (mg)				10,40125 mg	O
Exposure per task / Acute Dose	no	mg/kg bw	S	1,253162651 mg/kg bw	O
Exposure per day / Chronic Dose	no	mg/kg bw/day	S	2,506325301 mg/kg bw/day	O
Oral					
Exposure / Dose		accidental	S	accidental	S
Intake					
Exposure per task / Acute Dose		0,833333333 mg/kg bw	O	6,024096386 mg/kg bw	S
Exposure per day / Chronic Dose		1,666666667 mg/kg bw/day	O	12,04819277 mg/kg bw/day	O
Disposal		Task D: not applicable			

Scenario 21: personal care: hands leave-on**Scenario description**

Name of product	hand cream	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application + Post application phase

Task B: hand disinfection, hand creaming + leave-on

Number of tasks per year	730 tasks/yr	S	twice per day, ConsExpo: hand cream
Duration of task	720 min/task	S	ConsExpo: hand cream 720 min
Quantity of product used per task	1,7 g/task	S	ConsExpo: hand cream, 840 mg [TGD (2003)] general purpose
Volume of product used per task	1,7 ml/task	O	
Quantity of active substance used per task	17 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,084 m ²	S	Hands
Contact amount between product and skin	1,7 g/task	S	Whole amount used
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		0,283333333 mg/kg bw		2,048192771 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		0,566666667 mg/kg bw/day		4,096385542 mg/kg bw/day
Highest potential concentration in air		17 mg/m ³		17 mg/m ³
Inhalation acute		0,283333333 mg/kg bw		2,048192771 mg/kg bw
Inhalation chronic		0,566666667 mg/kg bw/day		4,096385542 mg/kg bw/day
Dermal acute		0,283333333 mg/kg bw		0 mg/kg bw
Dermal chronic		0,566666667 mg/kg bw/day		0 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		0,283333333 mg/kg bw		2,048192771 mg/kg bw
Daily intake chronic		0,566666667 mg/kg bw/day		4,096385542 mg/kg bw/day

Scenario 21: personal care: hands leave-on**Results / Output**

Mixing & Loading		Task A: not applicable			
Application + Post application phase		Task B: hand disinfection, hand creaming + leave-on			
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		17 mg/m³	O		17 mg/m³
Inhalation	0,236111111	mg/min	O	0,068472222	mg/min
Absorption per task		17 mg/task	S		17 mg/task
Exposure per task / Acute Dose	0,283333333	mg/kg bw	O	2,048192771	mg/kg bw
Exposure per day / Chronic Dose	0,566666667	mg/kg bw/day	O	4,096385542	mg/kg bw/day
Dermal					
Contact area between product and skin		0,084 m²	S		
Quantity of contact (mg)		17 mg	S		
Dermal load (mg/cm²)	0,020238095	mg/cm²	O		
Absorption (mg)		17 mg	O		
Exposure per task / Acute Dose	0,283333333	mg/kg bw	O	no	
Exposure per day / Chronic Dose	0,566666667	mg/kg bw/day	O	no	
Oral					
Exposure / Dose	accidental		S	accidental	
Intake					
Exposure per task / Acute Dose	0,283333333	mg/kg bw	S	2,048192771	mg/kg bw
Exposure per day / Chronic Dose	0,566666667	mg/kg bw/day	O	4,096385542	mg/kg bw/day
Disposal		Task D: not applicable			

Scenario 22: personal care: (ready for-use) spray (deo spray, hair spray)**Scenario description**

Name of product	hair spray	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Task B: spraying onto head + deposit time

Number of tasks per year	365 tasks/yr	S	once per day, ConsExpo: 438
Duration of task	5 min/task	S	ConsExpo: hair: 0.24 min spray and 5 min exposure
Quantity of product used per task	10 g/task	S	hair spray [TGD (2003)], deo 3.0 g/task
Volume of product used per task	10 ml/task	O	
Quantity of active substance used per task	100 mg/task	O	
Model inhalation exposure	Exposure to aerosols / Instantaneous release		
Room volume	1 m ³	S	cloud around user
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,555 m ²	S	Head (x2) + upper extremities
Contact amount between product and skin	10 g/task	S	Whole amount used
Contact area between product and skin children	0 m ²	S	no direct contact
Model oral exposure	accidental		

Post application phase

Task C: leave-on (drying/residence time)

Number of tasks per year	365 tasks/yr	S	once per day, ConsExpo: 438
Duration of task	720 min/task	S	12 hours, ConsExpo 16 hours dermal
Quantity of active substance used per task	100 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,555 m ²	S	Head (x2) + upper extremities
Contact amount between product and skin adult	0 g/task	S	all product is supposed to be absorbed during application
Contact area between product and skin children	0,0208025 m ²	S	Hands children
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		1,66666667 mg/kg bw		12,04819277 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		1,66666667 mg/kg bw/day		12,04819277 mg/kg bw/day
Highest potential concentration in air		100 mg/m ³		100 mg/m ³
Inhalation acute		1,66666667 mg/kg bw		12,04819277 mg/kg bw
Inhalation chronic		1,66666667 mg/kg bw/day		12,04819277 mg/kg bw/day
Dermal acute		1,66666667 mg/kg bw		2,506325301 mg/kg bw
Dermal chronic		1,66666667 mg/kg bw/day		2,506325301 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		1,66666667 mg/kg bw		12,04819277 mg/kg bw
Daily intake chronic		1,66666667 mg/kg bw/day		12,04819277 mg/kg bw/day

Scenario 22: personal care: (ready for-use) spray (deo spray, hair spray)**Results / Output**

Mixing & Loading		Task A: not applicable			
Application		Task B: spraying onto head + deposit time			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		100 mg/m ³	O	100 mg/m ³	O
Inhalation		1,388888889 mg/min	O	0,402777778 mg/min	O
Absorption per task		5,208333333 mg/task	O	1,510416667 mg/task	O
Exposure per task / Acute Dose		0,086805556 mg/kg bw	O	0,181977912 mg/kg bw	O
Exposure per day / Chronic Dose		0,086805556 mg/kg bw/day	O	0,181977912 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,555 m ²	S		
Volume of contact		55,5 ml	O		
Quantity of contact (mg)		100 mg	S		
Dermal load (mg/cm ²)		0,018018018 mg/cm ²	O		
Absorption (mg)		100 mg	O		
Exposure per task / Acute Dose		1,666666667 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		1,666666667 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		1,666666667 mg/kg bw	S	0,181977912 mg/kg bw	O
Exposure per day / Chronic Dose		1,666666667 mg/kg bw/day	O	0,181977912 mg/kg bw/day	O
Post application phase		Task C: leave-on (drying/residence time)			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		100 mg/m ³	O	100 mg/m ³	O
Inhalation		1,388888889 mg/min	O	0,402777778 mg/min	O
Absorption per task		100 mg/task	S	100 mg/task	S
Exposure per task / Acute Dose		1,666666667 mg/kg bw	O	12,04819277 mg/kg bw	O
Exposure per day / Chronic Dose		1,666666667 mg/kg bw/day	O	12,04819277 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,555 m ²	S	0,0208025 m ²	S
Volume of contact		0 ml	S	2,08025 ml	O
Quantity of contact (mg)		0 mg	S	20,8025 mg	O
Dermal load (mg/cm ²)		0 mg/cm ²	O	0,1 mg/cm ²	O
Absorption (mg)		0 mg	O	20,8025 mg	O
Exposure per task / Acute Dose		0 mg/kg bw	O	2,506325301 mg/kg bw	O
Exposure per day / Chronic Dose		0 mg/kg bw/day	O	2,506325301 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		1,666666667 mg/kg bw	O	12,04819277 mg/kg bw	S
Exposure per day / Chronic Dose		1,666666667 mg/kg bw/day	O	12,04819277 mg/kg bw/day	O
Disposal		Task D: not applicable			

Scenario 23: personal care: wet tissues**Scenario description**

Name of product	wet tissue, fresh-up towel	S	
Physical state product (liquid/solid)	liquid/solid	S	
Concentration of active substance in product	1 g/wipe	S	Frame Formulation
User	Consumer	S	
User 2	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Task B: wiping bottom + drying time (leave-on)

Number of tasks per year	720 tasks/yr	S	twice per day
Duration of task	720 min/task	S	application + leave-on
Quantity of wipes used per task	2 wipes/task	S	
Quantity of active substance used per task	2000 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	2,5 m ³	S	Toilet
Room volume children	16 m ³	S	Children Room with diaper changing table
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,084 m ²	S	Bottom (no data), estimated approx Hands
Contact area between product and skin children	0,0208025 m ²	S	Bottom Children (no data), estimated approx. Hands
Contact amount between active substance and skin	1000 mg/task	S	50% of whole amount used
Model oral exposure	accidental		

Post application phase

Task C: not applicable

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	User 2	Children
Highest potential exposure acute (all amount used is absorbed)		33,33333333 mg/kg bw		240,9638554 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		65,75342466 mg/kg bw/day		475,3259614 mg/kg bw/day
Highest potential concentration in air		205,1493218 mg/m ³		125 mg/m ³
Inhalation acute		25,64366523 mg/kg bw		32,7560241 mg/kg bw
Inhalation chronic		50,58476429 mg/kg bw/day		64,61462288 mg/kg bw/day
Dermal acute		16,66666667 mg/kg bw		120,4819277 mg/kg bw
Dermal chronic		32,87671233 mg/kg bw/day		237,6629807 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		33,33333333 mg/kg bw		153,2379518 mg/kg bw
Daily intake chronic		65,75342466 mg/kg bw/day		302,2776036 mg/kg bw/day

Scenario 23: personal care: wet tissues**Results / Output**

Mixing & Loading		Task A: not applicable			
Application		Task B: wiping bottom + drying time (leave-on)			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		205,1493218 mg/m ³	S	125 mg/m ³	O
Inhalation		2,849296137 mg/min	O	0,503472222 mg/min	O
Absorption per task		1538,619914 mg/task	O	271,875 mg/task	O
Exposure per task / Acute Dose		25,64366523 mg/kg bw	O	32,7560241 mg/kg bw	O
Exposure per day / Chronic Dose		50,58476429 mg/kg bw/day	O	64,61462288 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,084 m ²	S	0,0208025 m ²	S
Quantity of contact (mg)		1000 mg	S	1000 mg	S
Dermal load (mg/cm ²)		1,19047619 mg/cm ²	O	4,80711453 mg/cm ²	O
Absorption (mg)		1000 mg	O	1000 mg	O
Exposure per task / Acute Dose		16,66666667 mg/kg bw	O	120,4819277 mg/kg bw	O
Exposure per day / Chronic Dose		32,87671233 mg/kg bw/day	O	237,6629807 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		33,33333333 mg/kg bw	S	153,2379518 mg/kg bw	O
Exposure per day / Chronic Dose		65,75342466 mg/kg bw/day	O	302,2776036 mg/kg bw/day	O
Post application phase		Task C: not applicable			
Disposal		Task D: not applicable			

Scenario 24: personal care: hands/feet using (ready for-use) spray**Scenario description**

			Comments
Name of product	foot spray	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	no direct application
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Task B: spraying onto feet (or hands) + desposit time of aerosols

Number of tasks per year	90 tasks/yr	S	[ConsExpo: foot cream-anti fungal (antiperspirant 730 tasks)]
Duration of task	2 min/task	S	20 s spraying + rest deposit
Surface (treated per task)	0,112 m ² /task	S	Feet
Quantity of product used per m ²	50 ml/m ²	D	
Quantity of product used per task	5,6 ml/task	O	
Quantity of active substance used per task	56 mg/task	O	
Model inhalation exposure	Exposure to aerosols / Instantaneous release		
Room volume	1 m ³	S	cloud around user
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,31 m ²	S	Forearms, Hands, Feet
Contact area between product and skin children	0 m ²	S	no direct contact
Model oral exposure	accidental		

Post application phase

Task C: leave-on (drying/residence time)

Number of tasks per year	90 tasks/yr	S	[ConsExpo: foot cream-anti fungal (antiperspirant 730 tasks)]
Duration of task	720 min/task	S	ConsExpo 12 hours
Quantity of active substance used per task	56 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	O	cloud around user
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,31 m ²	S	Forearms, Hands, Feet
Contact area between product and skin children	0 m ²	S	no direct contact
Contact amount between product and skin	0 g/task	S	all product is supposed to be absorbed during application
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		0,933333333 mg/kg bw		6,746987952 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		0,230136986 mg/kg bw/day		1,663640865 mg/kg bw/day
Highest potential concentration in air		56 mg/m ³		56 mg/m ³
Inhalation acute		0,019444444 mg/kg bw		0,040763052 mg/kg bw
Inhalation chronic		0,004794521 mg/kg bw/day		0,010051164 mg/kg bw/day
Dermal acute		0,933333333 mg/kg bw		0 mg/kg bw
Dermal chronic		0,230136986 mg/kg bw/day		0 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		0,933333333 mg/kg bw		1,182128514 mg/kg bw
Daily intake chronic		0,230136986 mg/kg bw/day		0,291483743 mg/kg bw/day

Scenario 24: personal care: hands/feet using (ready for-use) spray**Results / Output**

Mixing & Loading		Task A: not applicable			
Application		Task B: spraying onto feet (or hands) + desposit time of aerosols			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		56 mg/m ³	O	56 mg/m ³	O
Inhalation		0,777777778 mg/min	O	0,225555556 mg/min	O
Absorption per task		1,166666667 mg/task	O	0,338333333 mg/task	O
Exposure per task / Acute Dose		0,019444444 mg/kg bw	O	0,040763052 mg/kg bw	O
Exposure per day / Chronic Dose		0,004794521 mg/kg bw/day	O	0,010051164 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,31 m ²	S		
Volume of contact		31 ml	O		
Quantity of contact (mg)		56 mg	S		
Dermal load (mg/cm ²)		0,018064516 mg/cm ²	O		
Absorption (mg)		56 mg	O		
Exposure per task / Acute Dose		0,933333333 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		0,230136986 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,933333333 mg/kg bw	S	0,040763052 mg/kg bw	O
Exposure per day / Chronic Dose		0,230136986 mg/kg bw/day	O	0,010051164 mg/kg bw/day	O
Post application phase		Task C: leave-on (drying/residence time)			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		56 mg/m ³	O	56 mg/m ³	O
Inhalation		0,777777778 mg/min	O	0,225555556 mg/min	O
Absorption per task		32,66666667 mg/task	O	9,473333333 mg/task	O
Exposure per task / Acute Dose		0,544444444 mg/kg bw	O	1,141365462 mg/kg bw	O
Exposure per day / Chronic Dose		0,134246575 mg/kg bw/day	S	0,28143258 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,31 m ²	S		
Quantity of contact (mg)		0 mg	S		
Dermal load (mg/cm ²)		0 mg/cm ²	O		
Absorption (mg)		0 mg	O		
Exposure per task / Acute Dose		0 mg/kg bw	O	no	mg/kg bw S
Exposure per day / Chronic Dose		0 mg/kg bw/day	O	no	mg/kg bw/day S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,544444444 mg/kg bw	O	1,141365462 mg/kg bw	O
Exposure per day / Chronic Dose		0,134246575 mg/kg bw/day	O	0,28143258 mg/kg bw/day	O
Disposal		Task D: not applicable			

Scenario 25: personal care: toothpaste

Scenario description

Name of product	antiseptic tooth paste	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
User 2	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Task B: brushing the teeth

Number of tasks per year	730 tasks/yr	S	twice a day [TGD (2003), ConsExpo 4]
Duration of task	10 min/task	S	
Quantity of product used per task	1,4 g/task	S	typical [TGD (2003)]
Quantity of active substance used per task	14 mg/task	O	
Model inhalation exposure	Exposure to vapour / negligible compared with oral exposure		
Model dermal exposure	Direct dermal contact / negligible compared with oral exposure		
Model oral exposure	Direct oral ingestion		
Fraction of product ingested adult	5,714285714 %	S	amount ingested product: 0.08 g [ConsExpo 4]
Fraction of product ingested child	37,85714286 %	S	amount ingested product: 0.53 g [2.5 years, ConsExpo 4]

Post application phase

Task C: not applicable

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	User 2	Children
Highest potential exposure acute (all amount used is absorbed)	0,233333333	mg/kg bw	1,686746988	mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)	0,466666667	mg/kg bw/day	3,373493976	mg/kg bw/day
Highest potential concentration in air	not available	mg/m ³	not available	mg/m ³
Inhalation acute	negligible	mg/kg bw	negligible	mg/kg bw
Inhalation chronic	negligible	mg/kg bw/day	negligible	mg/kg bw/day
Dermal acute	negligible	mg/kg bw	negligible	mg/kg bw
Dermal chronic	negligible	mg/kg bw/day	negligible	mg/kg bw/day
Oral acute	0,013333333	mg/kg bw	0,638554217	mg/kg bw
Oral chronic	0,026666667	mg/kg bw/day	1,277108434	mg/kg bw/day
Intake acute	0,013333333	mg/kg bw	0,638554217	mg/kg bw
Daily intake chronic	0,026666667	mg/kg bw/day	1,277108434	mg/kg bw/day

Scenario 25: personal care: toothpaste**Results / Output**

Mixing & Loading		Task A: not applicable				
Application		Task B: brushing the teeth				
		Primary exposure	User		Secondary exposure	Bystander
Inhalation						
Exposure per task / Acute Dose		negligible	mg/kg bw	S	negligible	mg/kg bw
Exposure per day / Chronic Dose		negligible	mg/kg bw/day	S	negligible	mg/kg bw/day
Dermal						
Exposure per task / Acute Dose		negligible	mg/kg bw	S	negligible	mg/kg bw
Exposure per day / Chronic Dose		negligible	mg/kg bw/day	S	negligible	mg/kg bw/day
Oral						
Absorption per task			0,8 mg/task	O		5,3 mg/task
Exposure per task / Acute Dose			0,013333333 mg/kg bw	O		0,638554217 mg/kg bw
Exposure per day / Chronic Dose			0,026666667 mg/kg bw/day	O		1,277108434 mg/kg bw/day
Intake						
Exposure per task / Acute Dose			0,013333333 mg/kg bw	O		0,638554217 mg/kg bw
Exposure per day / Chronic Dose			0,026666667 mg/kg bw/day	O		1,277108434 mg/kg bw/day
Post application phase		Task C: not applicable				
Disposal		Task D: not applicable				

Scenario 25b: personal care: mouth wash

Scenario description

Name of product	antiseptic mouth wash	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
User 2	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Task B: using mouth wash

Number of tasks per year	1825 tasks/yr	S	1-5 / day [TGD (2003), ConsExpo 4: 1460 tasks/yr]
Duration of task	5 min/task	S	
Quantity of product used per task	10 g/task	S	typical [TGD (2003)]
Quantity of active substance used per task	100 mg/task	O	
Model inhalation exposure	Exposure to vapour / negligible compared with oral exposure		
Model dermal exposure	Direct dermal contact / negligible compared with oral exposure		
Model oral exposure	Direct oral ingestion		
Fraction of product ingested adult	10 %	S	amount ingested product: 1 g [ConsExpo 4]
Fraction of product ingested child	10 %	S	

Post application phase

Task C: not applicable

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	User 2	Children
Highest potential exposure acute (all amount used is absorbed)	1,666666667	mg/kg bw	12,04819277	mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)	8,333333333	mg/kg bw/day	60,24096386	mg/kg bw/day
Highest potential concentration in air	not available	mg/m ³	not available	mg/m ³
Inhalation acute	negligible	mg/kg bw	negligible	mg/kg bw
Inhalation chronic	negligible	mg/kg bw/day	negligible	mg/kg bw/day
Dermal acute	negligible	mg/kg bw	negligible	mg/kg bw
Dermal chronic	negligible	mg/kg bw/day	negligible	mg/kg bw/day
Oral acute	0,166666667	mg/kg bw	1,204819277	mg/kg bw
Oral chronic	0,833333333	mg/kg bw/day	6,024096386	mg/kg bw/day
Intake acute	0,166666667	mg/kg bw	1,204819277	mg/kg bw
Daily intake chronic	0,833333333	mg/kg bw/day	6,024096386	mg/kg bw/day

Scenario 25b: personal care: mouth wash**Results / Output**

Mixing & Loading		Task A: not applicable				
Application		Task B: using mouth wash				
		Primary exposure	User		Secondary exposure	Bystander
Inhalation						
Exposure per task / Acute Dose		negligible	mg/kg bw	S	negligible	mg/kg bw
Exposure per day / Chronic Dose		negligible	mg/kg bw/day	S	negligible	mg/kg bw/day
Dermal						
Exposure per task / Acute Dose		negligible	mg/kg bw	S	negligible	mg/kg bw
Exposure per day / Chronic Dose		negligible	mg/kg bw/day	S	negligible	mg/kg bw/day
Oral						
Absorption per task			10 mg/task	O		10 mg/task
Exposure per task / Acute Dose			0,16666667 mg/kg bw	O		1,204819277 mg/kg bw
Exposure per day / Chronic Dose			0,83333333 mg/kg bw/day	O		6,024096386 mg/kg bw/day
Intake						
Exposure per task / Acute Dose			0,16666667 mg/kg bw	O		1,204819277 mg/kg bw
Exposure per day / Chronic Dose			0,83333333 mg/kg bw/day	O		6,024096386 mg/kg bw/day
Post application phase		Task C: not applicable				
Disposal		Task D: not applicable				

Scenario 25c: personal care: lip stick

Scenario description

Name of product	preservative in lip stick	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
User 2	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Task B: using lip stick

Number of tasks per year	2190 tasks/yr	S	2-6 / day [TGD (2003), ConsExpo 4: 1460 tasks/yr]
Duration of task	2 min/task	S	
Quantity of product used per task	0,01 g/task	S	typical [TGD (2003)]
Quantity of active substance used per task	0,1 mg/task	O	
Model inhalation exposure	Exposure to vapour / negligible compared with oral exposure		
Model dermal exposure	Direct dermal contact / negligible compared with oral exposure		
Model oral exposure	Direct oral ingestion		
Fraction of product ingested adult	100 %	S	amount ingested product: 0.01 g [ConsExpo 4]
Fraction of product ingested child	100 %	S	

Post application phase

Task C: not applicable

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	User 2	Children
Highest potential exposure acute (all amount used is absorbed)	0,001666667	mg/kg bw	0,012048193	mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)	0,01	mg/kg bw/day	0,072289157	mg/kg bw/day
Highest potential concentration in air	not available	mg/m ³	not available	mg/m ³
Inhalation acute	negligible	mg/kg bw	negligible	mg/kg bw
Inhalation chronic	negligible	mg/kg bw/day	negligible	mg/kg bw/day
Dermal acute	negligible	mg/kg bw	negligible	mg/kg bw
Dermal chronic	negligible	mg/kg bw/day	negligible	mg/kg bw/day
Oral acute	0,001666667	mg/kg bw	0,012048193	mg/kg bw
Oral chronic	0,01	mg/kg bw/day	0,072289157	mg/kg bw/day
Intake acute	0,001666667	mg/kg bw	0,012048193	mg/kg bw
Daily intake chronic	0,01	mg/kg bw/day	0,072289157	mg/kg bw/day

Scenario 25c: personal care: lip stick**Results / Output**

Mixing & Loading		Task A: not applicable					
Application		Task B: using lip stick					
		Primary exposure	User		Secondary exposure	Bystander	
Inhalation							
Exposure per task / Acute Dose		negligible	mg/kg bw	S	negligible	mg/kg bw	S
Exposure per day / Chronic Dose		negligible	mg/kg bw/day	S	negligible	mg/kg bw/day	S
Dermal							
Exposure per task / Acute Dose		negligible	mg/kg bw	S	negligible	mg/kg bw	S
Exposure per day / Chronic Dose		negligible	mg/kg bw/day	S	negligible	mg/kg bw/day	S
Oral							
Absorption per task			0,1 mg/task	O		0,1 mg/task	O
Exposure per task / Acute Dose		0,001666667	mg/kg bw	O	0,012048193	mg/kg bw	O
Exposure per day / Chronic Dose			0,01 mg/kg bw/day	O	0,072289157	mg/kg bw/day	O
Intake							
Exposure per task / Acute Dose		0,001666667	mg/kg bw	O	0,012048193	mg/kg bw	O
Exposure per day / Chronic Dose			0,01 mg/kg bw/day	O	0,072289157	mg/kg bw/day	O
Post application phase		Task C: not applicable					
Disposal		Task D: not applicable					

Scenario 26: home improvement: painting, latex paint

Scenario description

Name of product	latex paint	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1,5 g/cm ³	S	SDS Alpina latex paint
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	15000 mg/l	O	
Packing unit used	10 L	S	Technical Inf. Alpina latex paint: 2.5, 5 or 10 Liter
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Task B: painting living room

Number of tasks per year	3 tasks/yr	S	three days per year
Duration of task	480 min/task	S	8 hours
Surface (treated per task)	71,04 m ² /task	S	4,8 x 4,8 x 2,5 m, 4 walls and ceiling
Quantity of product used per m ²	125 ml/m ²	S	Technical Inf. Alpina latex paint
Quantity of product used per task	8880 ml/task	O	
Quantity of active substance used per task	133200 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	58 m ³	S	Living room
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,258033333 m ²	S	Forearms, Hands, 33% Head, 10% Lower legs
Contact area between product and skin children	0,14601 m ²	S	Hands, Arms + Head children
Model oral exposure	accidental		

Post application phase

Task C: drying time

Number of tasks per year	3 tasks/yr	S	three days per year
Duration of task	720 min/task	S	12 hours
Quantity of active substance used per task	133200 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	58 m ³	S	Living room
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0 m ²	S	no contact
Contact area between product and skin children	0 m ²	S	no contact
Model oral exposure	accidental		

Disposal

Task D: excessive paint is disposed to the main drainage, cleaning the bucket and brushes

Number of tasks per year	3 tasks/yr	S	three days per year
Duration of task	15 min/task	S	
Volume of product disposed per task	1,12 L/task	S	
Quantity of active substance disposed per task	16800 mg/task	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between ready-for-use paint and air, limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
REM Evaporation from mixture, release area product	0,070685835 m ²	S	bucket diameter 30 cm
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,198 m ²	S	Hands, Forearms
Model oral exposure	accidental		

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		2500 mg/kg bw		18072,28916 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		20,54794521 mg/kg bw/day		148,5393629 mg/kg bw/day
Highest potential concentration in air		205,1493218 mg/m ³		205,1493218 mg/m ³
Inhalation acute		42,74745423 mg/kg bw		89,615145 mg/kg bw
Inhalation chronic		0,351348939 mg/kg bw/day		0,736562836 mg/kg bw/day
Dermal acute		11,40083333 mg/kg bw		26,3873494 mg/kg bw
Dermal chronic		0,093705479 mg/kg bw/day		0,216882324 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		54,14828756 mg/kg bw		116,0024944 mg/kg bw
Daily intake chronic		0,445054418 mg/kg bw/day		0,953445159 mg/kg bw/day

Scenario 26: home improvement: painting, latex paint

Results / Output

Mixing & Loading		Task A: not applicable			
Application		Task B: painting living room			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		205,1493218 mg/m ³	S	205,1493218 mg/m ³	S
Inhalation		2,849296137 mg/min	O	0,82629588 mg/min	O
Absorption per task		1025,746609 mg/task	O	297,4665167 mg/task	O
Exposure per task / Acute Dose		17,09577682 mg/kg bw	O	35,83933936 mg/kg bw	O
Exposure per day / Chronic Dose		0,140513234 mg/kg bw/day	O	0,294569913 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,258033333 m ²	S	0,14601 m ²	S
Volume of contact		25,80333333 ml	O	14,601 ml	O
Quantity of contact		387,05 mg	O	219,015 mg	O
Dermal load (mg/cm ²)		0,15 mg/cm ²	O	0,15 mg/cm ²	O
Absorption (mg)		387,05 mg	O	219,015 mg	O
Exposure per task / Acute Dose		6,450833333 mg/kg bw	O	26,3873494 mg/kg bw	O
Exposure per day / Chronic Dose		0,053020548 mg/kg bw/day	O	0,216882324 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		23,54661015 mg/kg bw	O	62,22668875 mg/kg bw	O
Exposure per day / Chronic Dose		0,193533782 mg/kg bw/day	O	0,511452236 mg/kg bw/day	O
Post application phase		Task C: drying time			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		205,1493218 mg/m ³	S	205,1493218 mg/m ³	S
Inhalation		2,849296137 mg/min	O	0,82629588 mg/min	O
Absorption per task		1538,619914 mg/task	O	446,199775 mg/task	O
Exposure per task / Acute Dose		25,64366523 mg/kg bw	O	53,75900903 mg/kg bw	O
Exposure per day / Chronic Dose		0,210769851 mg/kg bw/day	O	0,441854869 mg/kg bw/day	O
Dermal					
Exposure per task / Acute Dose	no	mg/kg bw	S	no	mg/kg bw
Exposure per day / Chronic Dose	no	mg/kg bw/day	S	no	mg/kg bw/day
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		25,64366523 mg/kg bw	O	53,75900903 mg/kg bw	O
Exposure per day / Chronic Dose		0,210769851 mg/kg bw/day	O	0,441854869 mg/kg bw/day	O
Disposal		Task D: excessive paint is disposed to the main drainage, cleaning the bucket and brushes			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		3,076676276 mg/m ³	O	3,076676276 mg/m ³	O
Inhalation		0,042731615 mg/min	O	0,012392168 mg/min	O
Absorption per task		0,480730668 mg/task	O	0,139411894 mg/task	O
Exposure per task / Acute Dose		0,008012178 mg/kg bw	O	0,016796614 mg/kg bw	O
Exposure per day / Chronic Dose		6,58535E-05 mg/kg bw/day	O	0,000138054 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,198 m ²	S		
Volume of contact		19,8 ml	O		
Quantity of contact		297 mg	O		
Dermal load (mg/cm ²)		0,15 mg/cm ²	O		
Absorption (mg)		297 mg	O		
Exposure per task / Acute Dose		4,95 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		0,040684932 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		4,958012178 mg/kg bw	O	0,016796614 mg/kg bw	O
Exposure per day / Chronic Dose		0,040750785 mg/kg bw/day	O	0,000138054 mg/kg bw/day	O

Scenario 26b: home improvement: painting, latex paint + anti mould additive

Scenario description

			Comments
Name of product	anti mould additive	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product (concentrate)	1 %	S	Frame Formulation
Concentration of active substance in product (concentrate) (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

	Task A: simple mixing the additive with the paint		
Number of tasks per year	3 tasks/yr	S	three days per year
Duration of task	1,333333333 min/task	S	80 sec. [mixing spray, TNsG 2002 p. 252]
Volume of product used per task	250 ml/task	S	25 ml/l paint, Frame formulation
Quantity of water used per task	10 L/task	S	bucket of latex paint, Tech. Inf. Alpina latex paint: 2.5, 5 or 10 L
Quantity of product used per task	250 g/task	O	
Quantity of active substance used per task	2500 mg/task	S	
Concentration of active substance in ready-for-use paint	250 mg/l	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between ready-for-use paint and air, limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
REM Evaporation from mixture, release area concentrate	0,002 m ²	S	bottle diameter 5 cm [TNsG 2002 p. 252]
REM Evaporation from mixture, release area ready-for-use paint	0,070685835 m ²	S	bucket diameter 30 cm
Model dermal exposure	Direct dermal contact		
Contact area between concentrate and skin	0,0168 m ²	S	Fingertips
Model oral exposure	accidental		

Application

	Task B: painting living room		
Number of tasks per year	3 tasks/yr	S	three days per year
Duration of task	480 min/task	S	8 hours
Surface (treated per task)	71,04 m ² /task	S	4,8 x 4,8 x 2,5 m, 4 walls and ceiling
Quantity of ready-for-use paint used per m ²	125 ml/m ²	S	Technical Inf. Alpina latex paint
Quantity of ready-for-use paint used per task	8880 ml/task	O	
Concentration of active substance in ready-for-use paint	250 mg/l	O	
Quantity of active substance used per task	2220 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	58 m ³	S	Living room
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use paint and skin	0,258033333 m ²	S	Forearms, Hands, 33% Head, 10% Lower legs
Contact area between ready-for-use paint and skin children	0,14601 m ²	S	Hands, Arms + Head children
Model oral exposure	accidental		

Post application phase

	Task C: drying time		
Number of tasks per year	3 tasks/yr	S	three days per year
Duration of task	720 min/task	S	12 hours
Concentration of active substance in ready-for-use paint	250 mg/l	O	
Quantity of active substance used per task	2220 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	58 m ³	S	Living room
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use paint and skin	0 m ²	S	no contact
Contact area between ready-for-use paint and skin children	0 m ²	S	no contact
Model oral exposure	accidental		

Disposal

	Task D: excessive ready-for-use solution is disposed to the main drainage, cleaning the bucket and brushes		
Number of tasks per year	3 tasks/yr	S	three days per year
Duration of task	15 min/task	S	
Volume of ready-for-use paint disposed per task	1,12 L/task	S	
Concentration of active substance in ready-for-use paint	250 mg/l	O	
Quantity of active substance disposed per task	280 mg/task	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between ready-for-use paint and air, limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
REM Evaporation from mixture, release area ready-for-use paint	0,070685835 m ²	S	bucket diameter 30 cm
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use paint and skin	0,198 m ²	S	Hands, Forearms
Model oral exposure	accidental		

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		41,66666667 mg/kg bw		301,2048193 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		0,342465753 mg/kg bw/day		2,475656049 mg/kg bw/day
Highest potential concentration in air		38,27586207 mg/m ³		38,27586207 mg/m ³
Inhalation acute		7,974283339 mg/kg bw		16,7171723 mg/kg bw
Inhalation chronic		0,065542055 mg/kg bw/day		0,137401416 mg/kg bw/day
Dermal acute		0,470013889 mg/kg bw		0,439789157 mg/kg bw
Dermal chronic		0,003863128 mg/kg bw/day		0,003614705 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		8,444297228 mg/kg bw		17,15696146 mg/kg bw
Daily intake chronic		0,069405183 mg/kg bw/day		0,141016122 mg/kg bw/day

Scenario 26b: home improvement: painting, latex paint + anti mould additive

Results / Output

Mixing & Loading		Task A: simple mixing the additive with the paint			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		0,051286278 mg/m ³	O	0,051286278 mg/m ³	O
Inhalation		0,000712309 mg/min	O	0,00020657 mg/min	O
Absorption per task		0,000712309 mg/task	O	0,00020657 mg/task	O
Exposure per task / Acute Dose		1,18718E-05 mg/kg bw	O	2,48879E-05 mg/kg bw	O
Exposure per day / Chronic Dose		9,75766E-08 mg/kg bw/day	O	2,04558E-07 mg/kg bw/day	O
Dermal					
Contact area between product (concentrate) and skin		0,0168 m ²	S		
Volume of contact		1,68 ml	O		
Quantity of contact		16,8 mg	O		
Dermal load (mg/cm ²)		0,1 mg/cm ²	O		
Absorption (mg)		16,8 mg	O		
Exposure per task / Acute Dose		0,28 mg/kg bw	O	no	mg/kg bw
Exposure per day / Chronic Dose		0,00230137 mg/kg bw/day	O	no	mg/kg bw/day
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,280011872 mg/kg bw	O	2,48879E-05 mg/kg bw	O
Exposure per day / Chronic Dose		0,002301467 mg/kg bw/day	O	2,04558E-07 mg/kg bw/day	O

Application		Task B: painting living room			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		38,27586207 mg/m ³	O	38,27586207 mg/m ³	O
Inhalation		0,531609195 mg/min	O	0,154166667 mg/min	O
Absorption per task		191,3793103 mg/task	O	55,5 mg/task	O
Exposure per task / Acute Dose		3,189655172 mg/kg bw	O	6,686746988 mg/kg bw	O
Exposure per day / Chronic Dose		0,026216344 mg/kg bw/day	O	0,054959564 mg/kg bw/day	O
Dermal					
Contact area between ready-for-use paint and skin		0,258033333 m ²	S	0,14601 m ²	S
Volume of contact		25,80333333 ml	O	14,601 ml	O
Quantity of contact		6,450833333 mg	O	3,65025 mg	O
Dermal load (mg/cm ²)		0,0025 mg/cm ²	O	0,0025 mg/cm ²	O
Absorption (mg)		6,450833333 mg	O	3,65025 mg	O
Exposure per task / Acute Dose		0,107513889 mg/kg bw	O	0,439789157 mg/kg bw	O
Exposure per day / Chronic Dose		0,000883676 mg/kg bw/day	O	0,003614705 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		3,297169061 mg/kg bw	O	7,126536145 mg/kg bw	O
Exposure per day / Chronic Dose		0,02710002 mg/kg bw/day	O	0,05857427 mg/kg bw/day	O

Post application phase		Task C: drying time			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		38,27586207 mg/m ³	O	38,27586207 mg/m ³	O
Inhalation		0,531609195 mg/min	O	0,154166667 mg/min	O
Absorption per task		287,0689655 mg/task	O	83,25 mg/task	O
Exposure per task / Acute Dose		4,784482759 mg/kg bw	O	10,03012048 mg/kg bw	O
Exposure per day / Chronic Dose		0,039324516 mg/kg bw/day	O	0,082439346 mg/kg bw/day	O
Dermal					
Exposure per task / Acute Dose	no	mg/kg bw	S	no	mg/kg bw
Exposure per day / Chronic Dose	no	mg/kg bw/day	S	no	mg/kg bw/day
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		4,784482759 mg/kg bw	O	10,03012048 mg/kg bw	O
Exposure per day / Chronic Dose		0,039324516 mg/kg bw/day	O	0,082439346 mg/kg bw/day	O

Disposal		Task D: excessive ready-for-use solution is disposed to the main drainage, cleaning the bucket and brushes			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		0,051277938 mg/m ³	O	0,051277938 mg/m ³	O
Inhalation		0,000712194 mg/min	O	0,000206536 mg/min	O
Absorption per task		0,008012178 mg/task	O	0,002323532 mg/task	O
Exposure per task / Acute Dose		0,000133536 mg/kg bw	O	0,000279944 mg/kg bw	O
Exposure per day / Chronic Dose		1,09756E-06 mg/kg bw/day	O	2,30091E-06 mg/kg bw/day	O
Dermal					
Contact area between ready-for-use paint and skin		0,198 m ²	S		
Volume of contact		19,8 ml	O		
Quantity of contact		4,95 mg	O		
Dermal load (mg/cm ²)		0,0025 mg/cm ²	O		
Absorption (mg)		4,95 mg	O		
Exposure per task / Acute Dose		0,0825 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		0,000678082 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,082633536 mg/kg bw	O	0,000279944 mg/kg bw	O
Exposure per day / Chronic Dose		0,00067918 mg/kg bw/day	O	2,30091E-06 mg/kg bw/day	O

Scenario 27: home improvement: varnish (water-based)

Scenario description

Name of product	dispersion varnish	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1,2 g/cm ³	S	Technical Information Brillux Lacryl Lack
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	12000 mg/l	O	
Packing unit used	2,5 L	S	Tech. Inf. Brillux Lacryl Lack 375 ml, 750 ml, 2.5 L
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Task B: varnishing a radiator or window frame

Number of tasks per year	3 tasks/yr	S	three days per year
Duration of task	480 min/task	S	8 hours
Surface (treated per task)	19,2 m ² /task	S	radiator (800 mm x 2000 mm) x 2 (front and back) x 6/day
Quantity of product used per m ²	130 ml/m ²	S	Technical Information Brillux Lacryl Lack ca. 110- 130 ml/m ²
Quantity of product used per task	2496 ml/task	O	
Quantity of active substance used per task	29952 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	58 m ³	S	Living room
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,198 m ²	S	Forearms, Hands
Contact area between product and skin children	0,0208025 m ²	S	Hands children
Model oral exposure	accidental		

Post application phase

Task C: drying time

Number of tasks per year	3 tasks/yr	S	three days per year
Duration of task	720 min/task	S	12 hours
Quantity of active substance used per task	29952 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	58 m ³	S	Living room
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0 m ²	S	no contact
Contact area between product and skin children	0 m ²	S	no contact
Model oral exposure	accidental		

Disposal

Task D: excessive ready-for-use varnish is disposed to the main drainage, cleaning the bucket and brushes

Number of tasks per year	3 tasks/yr	S	three days per year
Duration of task	15 min/task	S	
Volume of product disposed per task	0,004 L/task	S	
Quantity of active substance disposed per task	48 mg/task	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between ready-for-use paint and air, limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
Evaporation from mixture, release area product	0,070685835 m ²	S	bucket diameter 30 cm
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,198 m ²	S	Hands, Forearms
Model oral exposure	accidental		

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		500 mg/kg bw		3614,457831 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		4,109589041 mg/kg bw/day		29,70787259 mg/kg bw/day
Highest potential concentration in air		205,1493218 mg/m ³		205,1493218 mg/m ³
Inhalation acute		42,74554021 mg/kg bw		89,61113248 mg/kg bw
Inhalation chronic		0,351333207 mg/kg bw/day		0,736529856 mg/kg bw/day
Dermal acute		4,76 mg/kg bw		3,007590361 mg/kg bw
Dermal chronic		0,039123288 mg/kg bw/day		0,024719921 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		47,49944205 mg/kg bw		92,61872284 mg/kg bw
Daily intake chronic		0,390406373 mg/kg bw/day		0,761249777 mg/kg bw/day

Scenario 27: home improvement: varnish (water-based)**Results / Output**

Mixing & Loading		Task A: not applicable			
Application		Task B: varnishing a radiator or window frame			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		205,1493218 mg/m ³	S	205,1493218 mg/m ³	S
Inhalation		2,849296137 mg/min	O	0,82629588 mg/min	O
Absorption per task		1025,746609 mg/task	O	297,4665167 mg/task	O
Exposure per task / Acute Dose		17,09577682 mg/kg bw	O	35,83933936 mg/kg bw	O
Exposure per day / Chronic Dose		0,140513234 mg/kg bw/day	O	0,294569913 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,198 m ²	S	0,0208025 m ²	S
Volume of contact		19,8 ml	O	2,08025 ml	O
Quantity of contact		237,6 mg	O	24,963 mg	O
Dermal load (mg/cm ²)		0,12 mg/cm ²	O	0,12 mg/cm ²	O
Absorption (mg)		237,6 mg	O	24,963 mg	O
Exposure per task / Acute Dose		3,96 mg/kg bw	O	3,007590361 mg/kg bw	O
Exposure per day / Chronic Dose		0,032547945 mg/kg bw/day	O	0,024719921 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		21,05577682 mg/kg bw	O	38,84692972 mg/kg bw	O
Exposure per day / Chronic Dose		0,173061179 mg/kg bw/day	O	0,319289833 mg/kg bw/day	O
Post application phase		Task C: drying time			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		205,1493218 mg/m ³	S	205,1493218 mg/m ³	S
Inhalation		2,849296137 mg/min	O	0,82629588 mg/min	O
Absorption per task		1538,619914 mg/task	O	446,199775 mg/task	O
Exposure per task / Acute Dose		25,64366523 mg/kg bw	O	53,75900903 mg/kg bw	O
Exposure per day / Chronic Dose		0,210769851 mg/kg bw/day	O	0,441854869 mg/kg bw/day	O
Dermal					
Exposure per task / Acute Dose	no	mg/kg bw	S	no	mg/kg bw
Exposure per day / Chronic Dose	no	mg/kg bw/day	S	no	mg/kg bw/day
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		25,64366523 mg/kg bw	O	53,75900903 mg/kg bw	O
Exposure per day / Chronic Dose		0,210769851 mg/kg bw/day	O	0,441854869 mg/kg bw/day	O
Disposal		Task D: excessive ready-for-use varnish is disposed to the main drainage, cleaning the bucket and brushes			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		2,341692695 mg/m ³	O	2,341692695 mg/m ³	O
Inhalation		0,03252351 mg/min	O	0,009431818 mg/min	O
Absorption per task		0,365889484 mg/task	O	0,10610795 mg/task	O
Exposure per task / Acute Dose		0,006098158 mg/kg bw	O	0,01278409 mg/kg bw	O
Exposure per day / Chronic Dose		5,01218E-05 mg/kg bw/day	O	0,000105075 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,198 m ²	S		
Volume of contact		19,8 ml	O		
Quantity of contact		48 mg	S		
Dermal load (mg/cm ²)		0,024242424 mg/cm ²	O		
Absorption (mg)		48 mg	O		
Exposure per task / Acute Dose		0,8 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		0,006575342 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,8 mg/kg bw	S	0,01278409 mg/kg bw	O
Exposure per day / Chronic Dose		0,006575342 mg/kg bw/day	O	0,000105075 mg/kg bw/day	O

Scenario 28: home improvement: wallpaper paste anti mould additive

Scenario description

Name of product	anti-mould additive for wallpaper paste	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: simple mixing the powder and the additive with water			
Number of tasks per year	3 tasks/yr	S	three days per year
Duration of task	1,333333333 min/task	S	80 sec. [mixing spray TNsG 2002 p. 252]
Quantity of product used per task	750 g/task	S	for 3 packages wallpaper paste (3x200 g)
Quantity of water used per task	12 L/task	S	Technical Inf. 3 packages sufficient for ca. 78 qm
Quantity of active substance used per task	7500 mg/task	S	
Concentration of active substance in ready-for-use paste	625 mg/l	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between ready-for-use paste and air, limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
REM Evaporation from mixture, release area powder	?? m ²	U	
REM Evaporation from mixture, release area ready-for-use paste	0,070685835 m ²	S	bucket diameter 30 cm
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,0168 m ²	S	Fingertips
Model oral exposure	accidental		

Application

Task B: wallpaper living room			
Number of tasks per year	3 tasks/yr	S	three days per year
Duration of task	480 min/task	S	8 hours
Surface (treated per task)	71,04 m ² /task	S	4,8 x 4,8 x 2,5 m, 4 walls and ceiling
Quantity of ready-for-use paste used per m ²	153 ml/m ²	S	
Quantity of ready-for-use paste used per task	10869,12 ml/task	O	
Concentration of active substance in ready-for-use paste	625 mg/l	O	
Quantity of active substance used per task	6793,2 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	58 m ³	S	Living room
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use paste and skin	0,258033333 m ²	S	Forearms, Hands, 33% Head, 10% Lower legs
Contact area between ready-for-use paste and skin children	0,14601 m ²	S	Hands, Arms + Head children
Model oral exposure	accidental		

Post application phase

Task C: drying time			
Number of tasks per year	3 tasks/yr	S	three days per year
Duration of task	720 min/task	S	12 hours
Concentration of active substance in ready-for-use paste	625 mg/l	O	
Quantity of active substance used per task	6793,2 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	58 m ³	S	Living room
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use paste and skin	0 m ²	S	no contact
Contact area between ready-for-use paste and skin children	0 m ²	S	no contact
Model oral exposure	accidental		

Disposal

Task D: excessive ready-for-use paste is disposed to the main drainage, cleaning the bucket and brushes			
Number of tasks per year	3 tasks/yr	S	three days per year
Duration of task	15 min/task	S	
Volume of ready-for-use paste disposed per task	1,13088 L/task	S	
Concentration of active substance in ready-for-use paste	625 mg/l	O	
Quantity of active substance disposed per task	706,8 mg/task	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between ready-for-use paste and air, limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
REM Evaporation from mixture, release area ready-for-use paste	0,070685835 m ²	S	bucket diameter 30 cm
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use paste and skin	0,198 m ²	S	Hands, Forearms
Model oral exposure	accidental		

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		125 mg/kg bw		903,6144578 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		1,02739726 mg/kg bw/day		7,426968147 mg/kg bw/day
Highest potential concentration in air		117,1241379 mg/m ³		117,1241379 mg/m ³
Inhalation acute		24,40122559 mg/kg bw		51,15437654 mg/kg bw
Inhalation chronic		0,200558019 mg/kg bw/day		0,42044693 mg/kg bw/day
Dermal acute		0,755034722 mg/kg bw		1,099472892 mg/kg bw
Dermal chronic		0,006205765 mg/kg bw/day		0,009036763 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		25,15626031 mg/kg bw		52,25384943 mg/kg bw
Daily intake chronic		0,206763783 mg/kg bw/day		0,429483694 mg/kg bw/day

Scenario 28: home improvement: wallpaper paste anti mould additive

Results / Output

Mixing & Loading					
Task A: simple mixing the powder and the additive with water					
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	0,128216134	mg/m ³	O	0,128216134	mg/m ³
Inhalation	0,00178078	mg/min	O	0,000516426	mg/min
Absorption per task	0,00178078	mg/task	O	0,000516426	mg/task
Exposure per task / Acute Dose	2,96797E-05	mg/kg bw	O	6,222E-05	mg/kg bw
Exposure per day / Chronic Dose	2,43942E-07	mg/kg bw/day	O	5,11397E-07	mg/kg bw/day
Dermal					
Contact area between product (powder) and skin	0,0168	m ²	S		
Volume of contact	1,68	ml	O		
Quantity of contact (mg)	16,8	mg	O		
Dermal load (mg/cm ²)	0,1	mg/cm ²	O		
Absorption (mg)	16,8	mg	O		
Exposure per task / Acute Dose	0,28	mg/kg bw	O	no	mg/kg bw
Exposure per day / Chronic Dose	0,00230137	mg/kg bw/day	O	no	mg/kg bw/day
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose	0,28002968	mg/kg bw	O	6,222E-05	mg/kg bw
Exposure per day / Chronic Dose	0,002301614	mg/kg bw/day	O	5,11397E-07	mg/kg bw/day

Application					
Task B: wallpaper living room					
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	117,1241379	mg/m ³	O	117,1241379	mg/m ³
Inhalation	1,626724138	mg/min	O	0,47175	mg/min
Absorption per task	585,6206897	mg/task	O	169,83	mg/task
Exposure per task / Acute Dose	9,760344828	mg/kg bw	O	20,46144578	mg/kg bw
Exposure per day / Chronic Dose	0,080222012	mg/kg bw/day	O	0,168176267	mg/kg bw/day
Dermal					
Contact area between ready-for-use paste and skin	0,258033333	m ²	S	0,14601	m ²
Volume of contact	25,80333333	ml	O	14,601	ml
Quantity of contact	16,12708333	mg	O	9,125625	mg
Dermal load (mg/cm ²)	0,00625	mg/cm ²	O	0,00625	mg/cm ²
Absorption (mg)	16,12708333	mg	O	9,125625	mg
Exposure per task / Acute Dose	0,268784722	mg/kg bw	O	1,099472892	mg/kg bw
Exposure per day / Chronic Dose	0,002209189	mg/kg bw/day	O	0,009036763	mg/kg bw/day
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose	10,02912955	mg/kg bw	O	21,56091867	mg/kg bw
Exposure per day / Chronic Dose	0,082431202	mg/kg bw/day	O	0,17721303	mg/kg bw/day

Post application phase					
Task C: drying time					
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	117,1241379	mg/m ³	O	117,1241379	mg/m ³
Inhalation	1,626724138	mg/min	O	0,47175	mg/min
Absorption per task	878,4310345	mg/task	O	254,745	mg/task
Exposure per task / Acute Dose	14,64051724	mg/kg bw	O	30,69216867	mg/kg bw
Exposure per day / Chronic Dose	0,120333018	mg/kg bw/day	O	0,2522644	mg/kg bw/day
Dermal					
Exposure per task / Acute Dose	no	mg/kg bw	S	no	mg/kg bw
Exposure per day / Chronic Dose	no	mg/kg bw/day	S	no	mg/kg bw/day
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose	14,64051724	mg/kg bw	O	30,69216867	mg/kg bw
Exposure per day / Chronic Dose	0,120333018	mg/kg bw/day	O	0,2522644	mg/kg bw/day

Disposal					
Task D: excessive ready-for-use paste is disposed to the main drainage, cleaning the bucket and brushes					
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	0,128195071	mg/m ³	O	0,128195071	mg/m ³
Inhalation	0,001780487	mg/min	O	0,000516341	mg/min
Absorption per task	0,02003048	mg/task	O	0,005808839	mg/task
Exposure per task / Acute Dose	0,000333841	mg/kg bw	O	0,00069986	mg/kg bw
Exposure per day / Chronic Dose	2,7439E-06	mg/kg bw/day	O	5,75228E-06	mg/kg bw/day
Dermal					
Contact area between ready-for-use paste and skin	0,198	m ²	S		
Volume of contact	19,8	ml	O		
Quantity of contact	12,375	mg	O		
Dermal load (mg/cm ²)	0,00625	mg/cm ²	O		
Absorption (mg)	12,375	mg	O		
Exposure per task / Acute Dose	0,20625	mg/kg bw	O	no	S
Exposure per day / Chronic Dose	0,001695205	mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose	0,206583841	mg/kg bw	O	0,00069986	mg/kg bw
Exposure per day / Chronic Dose	0,001697949	mg/kg bw/day	O	5,75228E-06	mg/kg bw/day

Scenario 29: home improvement: (ready-for-use) floor adhesive**Scenario description**

Name of product	latex adhesive	S	
Physical state product (liquid/solid)	liquid, paste	S	
Density product	1,5 g/cm ³	S	SDS Ceresit Ceraflux Fliesenkleber
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	15000 mg/l	O	
Packing unit	1, 3, 7 or 14 kg	S	Technical Information Ceresit Cereflux
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Number of tasks per year	3 tasks/yr	S	three days per year
Duration of task	480 min/task	S	8 hours
Surface (treated per task)	23,04 m ² /task	S	4,8 x 4,8 m
Quantity of product used per m ²	2,4 kg/m ²	S	Technical Information Ceresit Ceraflux 1.5 - 2.4 kg/m ²
Quantity of product used per task	55,296 kg/task	O	4 buckets = 56 kg
Quantity of active substance used per task	552960 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	58 m ³	S	Living room
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,2187 m ²	S	Forearms, Hands, 10% Lower legs
Contact area between product and skin children	0,0208025 m ²	S	Hands children
Model oral exposure	accidental		

Post application phase

Number of tasks per year	3 tasks/yr	S	three days per year
Duration of task	720 min/task	S	12 hours
Quantity of active substance used per task	552960 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	58 m ³	S	Living room
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0 m ²	S	no contact
Contact area between product and skin children	0 m ²	S	no contact
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		9216 mg/kg bw		66621,68675 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		75,74794521 mg/kg bw/day		547,5755075 mg/kg bw/day
Highest potential concentration in air		205,1493218 mg/m ³		205,1493218 mg/m ³
Inhalation acute		42,73944205 mg/kg bw		89,59834839 mg/kg bw
Inhalation chronic		0,351283085 mg/kg bw/day		0,736424781 mg/kg bw/day
Dermal acute		5,4675 mg/kg bw		3,759487952 mg/kg bw
Dermal chronic		0,044938356 mg/kg bw/day		0,030899901 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		48,20694205 mg/kg bw		93,35783634 mg/kg bw
Daily intake chronic		0,396221441 mg/kg bw/day		0,767324682 mg/kg bw/day

Scenario 29: home improvement: (ready-for-use) floor adhesive**Results / Output**

Mixing & Loading		Task A: not applicable			
Application		Task B: bottom gluing (tiling, laying cork)			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		205,1493218 mg/m ³	S	205,1493218 mg/m ³	S
Inhalation		2,849296137 mg/min	O	0,82629588 mg/min	O
Absorption per task		1025,746609 mg/task	O	297,4665167 mg/task	O
Exposure per task / Acute Dose		17,09577682 mg/kg bw	O	35,83933936 mg/kg bw	O
Exposure per day / Chronic Dose		0,140513234 mg/kg bw/day	O	0,294569913 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,2187 m ²	S	0,0208025 m ²	S
Volume of contact		21,87 ml	O	2,08025 ml	O
Quantity of contact		328,05 mg	O	31,20375 mg	O
Dermal load (mg/cm ²)		0,15 mg/cm ²	O	0,15 mg/cm ²	O
Absorption (mg)		328,05 mg	O	31,20375 mg	O
Exposure per task / Acute Dose		5,4675 mg/kg bw	O	3,759487952 mg/kg bw	O
Exposure per day / Chronic Dose		0,044938356 mg/kg bw/day	O	0,030899901 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		22,56327682 mg/kg bw	O	39,59882731 mg/kg bw	O
Exposure per day / Chronic Dose		0,18545159 mg/kg bw/day	O	0,325469813 mg/kg bw/day	O
Post application phase		Task C: drying time			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		205,1493218 mg/m ³	S	205,1493218 mg/m ³	S
Inhalation		2,849296137 mg/min	O	0,82629588 mg/min	O
Absorption per task		1538,619914 mg/task	O	446,199775 mg/task	O
Exposure per task / Acute Dose		25,64366523 mg/kg bw	O	53,75900903 mg/kg bw	O
Exposure per day / Chronic Dose		0,210769851 mg/kg bw/day	O	0,441854869 mg/kg bw/day	O
Dermal					
Exposure per task / Acute Dose	no	mg/kg bw	S	no	mg/kg bw
Exposure per day / Chronic Dose	no	mg/kg bw/day	S	no	mg/kg bw/day
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		25,64366523 mg/kg bw	O	53,75900903 mg/kg bw	O
Exposure per day / Chronic Dose		0,210769851 mg/kg bw/day	O	0,441854869 mg/kg bw/day	O
Disposal		Task D: not applicable			

Scenario 30: handicrafts: playing with finger paints

Scenario description

Name of product	finger paints	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1,5 g/cm ³	S	<i>estimated, like latex paints</i>
Concentration of active substance in product	1 %	S	<i>Frame Formulation</i>
Concentration of active substance in product (mg/l)	15000 mg/l	O	
User	Adult	S	
User 2	Children	S	
Temperature	20 °C	D	<i>room temperature</i>

Mixing & Loading

Task A: not applicable

Application

Task B: playing with finger paints

Number of tasks per year	52 tasks/yr	S	<i>once per week</i>
Duration of task	60 min/task	S	<i>1 hour playing time</i>
Surface (treated per task)	1 m ² /task	S	
Quantity of product used per m ²	100 ml/m ²	S	<i>estimated, like latex paint or varnish</i>
Quantity of product used per task	100 ml/task	O	
Quantity of active substance used per task	1500 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	30 m ³	S	<i>Children room</i>
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,084 m ²	S	<i>Hands</i>
Contact area between product and skin children	0,14601 m ²	S	<i>Hands, Arms, Head children</i>
Model oral exposure	accidental		

Post application phase

Task C: drying time

Number of tasks per year	52 tasks/yr	S	<i>once per week</i>
Duration of task	120 min/task	S	<i>2 hour</i>
Quantity of active substance used per task	1500 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	30 m ³	S	<i>Children room</i>
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0 m ²	S	<i>no direct contact</i>
Contact area between product and skin children	0 m ²	S	<i>no direct contact</i>
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Adult	User 2	Children
Highest potential exposure acute (all amount used is absorbed)		25 mg/kg bw		180,7228916 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		3,561643836 mg/kg bw/day		25,74682291 mg/kg bw/day
Highest potential concentration in air		50 mg/m ³		50 mg/m ³
Inhalation acute		1,5625 mg/kg bw		3,27560241 mg/kg bw
Inhalation chronic		0,22260274 mg/kg bw/day		0,466661165 mg/kg bw/day
Dermal acute		2,1 mg/kg bw		26,3873494 mg/kg bw
Dermal chronic		0,299178082 mg/kg bw/day		3,759293613 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		3,6625 mg/kg bw		29,66295181 mg/kg bw
Daily intake chronic		0,521780822 mg/kg bw/day		4,225954778 mg/kg bw/day

Scenario 30: handicrafts: playing with finger paints**Results / Output**

Mixing & Loading		Task A: not applicable			
Application		Task B: playing with finger paints			
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		50 mg/m ³	O	50 mg/m ³	O
Inhalation		0,694444444 mg/min	O	0,201388889 mg/min	O
Absorption per task		31,25 mg/task	O	9,0625 mg/task	O
Exposure per task / Acute Dose		0,520833333 mg/kg bw	O	1,09186747 mg/kg bw	O
Exposure per day / Chronic Dose		0,074200913 mg/kg bw/day	O	0,155553722 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,084 m ²	S	0,14601 m ²	S
Volume of contact		8,4 ml	O	14,601 ml	O
Quantity of contact (mg)		126 mg	O	219,015 mg	O
Dermal load (mg/cm ²)		0,15 mg/cm ²	O	0,15 mg/cm ²	O
Absorption (mg)		126 mg	O	219,015 mg	O
Exposure per task / Acute Dose		2,1 mg/kg bw	O	26,3873494 mg/kg bw	O
Exposure per day / Chronic Dose		0,299178082 mg/kg bw/day	O	3,759293613 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		2,620833333 mg/kg bw	O	27,47921687 mg/kg bw	O
Exposure per day / Chronic Dose		0,373378995 mg/kg bw/day	O	3,914847335 mg/kg bw/day	O
Post application phase		Task C: drying time			
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		50 mg/m ³	O	50 mg/m ³	O
Inhalation		0,694444444 mg/min	O	0,201388889 mg/min	O
Absorption per task		62,5 mg/task	O	18,125 mg/task	O
Exposure per task / Acute Dose		1,041666667 mg/kg bw	O	2,18373494 mg/kg bw	O
Exposure per day / Chronic Dose		0,148401826 mg/kg bw/day	O	0,311107443 mg/kg bw/day	O
Dermal					
Exposure per task / Acute Dose	no	mg/kg bw	S	no	mg/kg bw
Exposure per day / Chronic Dose	no	mg/kg bw/day	S	no	mg/kg bw/day
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		1,041666667 mg/kg bw	O	2,18373494 mg/kg bw	O
Exposure per day / Chronic Dose		0,148401826 mg/kg bw/day	O	0,311107443 mg/kg bw/day	O
Disposal		Task D: not applicable			

Scenario 31: repellent: liquid

Scenario description

Name of product	milk insect repellent	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	ConsExpo 0.9 g/cm ³
Concentration of active substance in product	1 %	S	Frame formulation 10 - 20%
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
User 2	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Number of tasks per year	Task B: rubbing in + leave-on of repellent		
Duration of task	84 tasks/yr	S	three times per day for 4 weeks per year, ConsExpo: 54 tasks/yr
Quantity of product used per task, adult	480 min/task	S	Frame formulation 4-8 hours, ConsExpo 3h
Quantity of product used per task, child	4,5 g/task	S	ConsExpo: 6 g, TGD (2003) for sun cream 8 g
Volume of product used per task, adult	1,5 g/task	S	ConsExpo: 1.5 g
Volume of product used per task, child	4,5 ml/task	O	Yap et al. (2000): 0.75 ml per arm and 1.5 ml per leg
Quantity of active substance used per task, adult	1,5 ml/task	O	
Quantity of active substance used per task, child	45 mg/task	O	
Model inhalation exposure	15 mg/task	O	
Room volume	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Model dermal exposure	1 m ³	S	cloud around user
Contact area between product and skin	Direct dermal contact		
Contact area between product and skin children	1,073 m ²	S	Upper and lower extremities, head
Contact amount between product and skin, adult	0,2060625 m ²	S	Head, arms, legs children
Contact amount between product and skin, child	4,5 g/task	S	Whole amount used
Model oral exposure	1,5 g/task	S	Whole amount used
	accidental		ConsExpo: hand-mouth contact (adult, 4% in 3h; child 10% in 3h)

Post application phase

Task C: not applicable

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	User 2	Children
Highest potential exposure acute (all amount used is absorbed)		0,75 mg/kg bw		1,807228916 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		0,17260274 mg/kg bw/day		0,415910216 mg/kg bw/day
Highest potential concentration in air		45 mg/m ³		15 mg/m ³
Inhalation acute		0,75 mg/kg bw		1,807228916 mg/kg bw
Inhalation chronic		0,17260274 mg/kg bw/day		0,415910216 mg/kg bw/day
Dermal acute		0,75 mg/kg bw		1,807228916 mg/kg bw
Dermal chronic		0,17260274 mg/kg bw/day		0,415910216 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		0,75 mg/kg bw		1,807228916 mg/kg bw
Daily intake chronic		0,17260274 mg/kg bw/day		0,415910216 mg/kg bw/day

Scenario 31: repellent: liquid**Results / Output**

Mixing & Loading		Task A: not applicable			
Application		Task B: rubbing in + leave-on of repellent			
		Primary exposure	User	Primary exposure	User 2
Inhalation					
Concentration of potential exposure		45 mg/m ³	O	15 mg/m ³	O
Inhalation		0,625 mg/min	O	0,060416667 mg/min	O
Absorption per task		45 mg/task	S	15 mg/task	S
Exposure per task / Acute Dose		0,75 mg/kg bw	O	1,807228916 mg/kg bw	O
Exposure per day / Chronic Dose		0,17260274 mg/kg bw/day	O	0,415910216 mg/kg bw/day	O
Dermal					
Contact area between product and skin		1,073 m ²	S	0,2060625 m ²	S
Quantity of contact (mg)		45 mg	S	15 mg	S
Dermal load (mg/cm ²)		0,004193849 mg/cm ²	O	0,021838035 mg/cm ²	O
Absorption (mg)		45 mg	O	15 mg	O
Exposure per task / Acute Dose		0,75 mg/kg bw	O	1,807228916 mg/kg bw	O
Exposure per day / Chronic Dose		0,17260274 mg/kg bw/day	O	0,415910216 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,75 mg/kg bw	S	1,807228916 mg/kg bw	S
Exposure per day / Chronic Dose		0,17260274 mg/kg bw/day	O	0,415910216 mg/kg bw/day	O
Post application phase		Task C: not applicable			
Disposal		Task D: not applicable			

Scenario 32: repellent, spray

Scenario description

Name of product	spray insect repellent	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	ConsExpo 0.9 g/cm ³
Concentration of active substance in product	1 %	S	Frame formulation 10 - 20%
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
User 2	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Task B: spraying, rubbing in + deposit time of aerosols

Number of tasks per year	84 tasks/yr	S	three times per day for 4 weeks per year, ConsExpo: 54 tasks/yr
Duration of task	15 min/task	S	
Quantity of product used per task, adult	4,5 g/task	S	ConsExpo: 6 g, TGD (2003) for sun cream 8 g
Quantity of product used per task, child	1,5 g/task	S	ConsExpo: 1.5 g
Volume of product used per task, adult	4,5 ml/task	O	Yap et al. (2000): 0.75 ml per arm and 1.5 ml per leg
Volume of product used per task, child	1,5 ml/task	O	
Quantity of active substance used per task, adult	45 mg/task	O	
Quantity of active substance used per task, child	15 mg/task	O	
Model inhalation exposure	Exposure to aerosols / Instantaneous release		
Room volume	1 m ³	S	cloud around user
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	1,073 m ²	S	Upper and lower extremities, head
Contact area between product and skin children	0,2060625 m ²	S	Head, arms, legs children
Contact amount between product and skin, adult	4,5 g/task	S	Whole amount used
Contact amount between product and skin, child	1,5 g/task	S	Whole amount used
Model oral exposure	accidental		

Post application phase

Task C: leave-on

Number of tasks per year	84 tasks/yr	S	three times per day for 4 weeks per year, ConsExpo: 54 tasks/yr
Duration of task	480 min/task	S	Frame formulation 4-8 hours, ConsExpo 3h
Quantity of active substance used per task, adult	45 mg/task	O	
Quantity of active substance used per task, child	15 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	1,073 m ²	S	Upper and lower extremities, head
Contact area between product and skin children	0,2060625 m ²	S	Head, arms, legs children
Contact amount between product and skin	0 g/task	S	all product is supposed to be absorbed during application
Model oral exposure	accidental		ConsExpo: hand-mouth contact (adult, 4% in 3h; child 10% in 3h)

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	User 2	Children
Highest potential exposure acute (all amount used is absorbed)		0,75 mg/kg bw		1,807228916 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		0,17260274 mg/kg bw/day		0,415910216 mg/kg bw/day
Highest potential concentration in air		45 mg/m ³		15 mg/m ³
Inhalation acute		0,75 mg/kg bw		1,807228916 mg/kg bw
Inhalation chronic		0,17260274 mg/kg bw/day		0,415910216 mg/kg bw/day
Dermal acute		0,75 mg/kg bw		1,807228916 mg/kg bw
Dermal chronic		0,17260274 mg/kg bw/day		0,415910216 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		0,75 mg/kg bw		1,807228916 mg/kg bw
Daily intake chronic		0,17260274 mg/kg bw/day		0,415910216 mg/kg bw/day

Scenario 32: repellent, spray**Results / Output**

Mixing & Loading		Task A: not applicable			
Application		Task B: spraying, rubbing in + deposit time of aerosols			
		Primary exposure	User	Primary exposure	User 2
Inhalation					
Concentration of potential exposure		45 mg/m ³	O	15 mg/m ³	O
Inhalation		0,625 mg/min	O	0,060416667 mg/min	O
Absorption per task		7,03125 mg/task	O	0,6796875 mg/task	O
Exposure per task / Acute Dose		0,1171875 mg/kg bw	O	0,08189006 mg/kg bw	O
Exposure per day / Chronic Dose		0,026969178 mg/kg bw/day	O	0,018845932 mg/kg bw/day	O
Dermal					
Contact area between product and skin		1,073 m ²	S	0,2060625 m ²	S
Quantity of contact (mg)		45 mg	S	15 mg	S
Dermal load (mg/cm ²)		0,004193849 mg/cm ²	O	0,007279345 mg/cm ²	O
Absorption (mg)		45 mg	O	15 mg	O
Exposure per task / Acute Dose		0,75 mg/kg bw	O	1,807228916 mg/kg bw	O
Exposure per day / Chronic Dose		0,17260274 mg/kg bw/day	O	0,415910216 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,75 mg/kg bw	S	1,807228916 mg/kg bw	S
Exposure per day / Chronic Dose		0,17260274 mg/kg bw/day	O	0,415910216 mg/kg bw/day	O
Post application phase		Task C: leave-on			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		45 mg/m ³	O	15 mg/m ³	O
Inhalation		0,625 mg/min	O	0,060416667 mg/min	O
Absorption per task		45 mg/task	S	15 mg/task	S
Exposure per task / Acute Dose		0,75 mg/kg bw	O	1,807228916 mg/kg bw	O
Exposure per day / Chronic Dose		0,17260274 mg/kg bw/day	O	0,415910216 mg/kg bw/day	O
Dermal					
Contact area between product and skin		1,073 m ²	S	0,2060625 m ²	S
Quantity of contact (mg)		0 mg	S	0 mg	S
Dermal load (mg/cm ²)		0 mg/cm ²	O	0 mg/cm ²	O
Absorption (mg)		0 mg	O	0 mg	O
Exposure per task / Acute Dose		0 mg/kg bw	O	0 mg/kg bw	O
Exposure per day / Chronic Dose		0 mg/kg bw/day	O	0 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,75 mg/kg bw	O	1,807228916 mg/kg bw	O
Exposure per day / Chronic Dose		0,17260274 mg/kg bw/day	O	0,415910216 mg/kg bw/day	O
Disposal		Task D: not applicable			

Scenario 33: insecticide: spray, air space**Scenario description**

Name of product	spray against flying insects	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Task B: spraying into the room + deposit time of aerosols

Number of tasks per year	90 tasks/yr	S	[ConsExpo]
Duration of task	120 min/task	S	ConsExpo: exp. duration 240 min, spray duration 20 s
Quantity of product used per task	7 g/task	S	ConsExpo: 20 s use duration with 0.35 g/s (10 s spraying time with 0,7 g/s)
Volume of product used per task	7 ml/task	O	
Quantity of active substance used per task	70 mg/task	O	
Model inhalation exposure	Exposure to aerosols / Instantaneous release		
Room volume	58 m ³	S	Living room, Consexpo
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,258033333 m ²	S	Forearms, Hands, 33% Head, 10% Lower legs
Contact area between product and skin children	0,106472167 m ²	S	Hands, Arms, 33% Head, 10% Legs children
Model oral exposure	accidental		

Post application phase

Task C: residence time

Number of tasks per year	90 tasks/yr	S	[ConsExpo]
Duration of task	120 min/task	S	ConsExpo: exp. duration 240 min
Quantity of active substance used per task	70 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	58 m ³	S	Living room, ConsExpo
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0 m ²	S	no direct contact
Contact area between product and skin children	0 m ²	S	no direct contact
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		1,166666667 mg/kg bw		8,43373494 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		0,287671233 mg/kg bw/day		2,079551081 mg/kg bw/day
Highest potential concentration in air		1,206896552 mg/m ³		1,206896552 mg/m ³
Inhalation acute		0,050287356 mg/kg bw		0,105421687 mg/kg bw
Inhalation chronic		0,012399622 mg/kg bw/day		0,025994389 mg/kg bw/day
Dermal acute		1,166666667 mg/kg bw		8,43373494 mg/kg bw
Dermal chronic		0,287671233 mg/kg bw/day		2,079551081 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		1,166666667 mg/kg bw		8,43373494 mg/kg bw
Daily intake chronic		0,287671233 mg/kg bw/day		2,079551081 mg/kg bw/day

Scenario 33: insecticide: spray, air space**Results / Output**

Mixing & Loading		Task A: not applicable			
Application		Task B: spraying into the room + deposit time of aerosols			
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	1,206896552	mg/m ³	O	1,206896552	mg/m ³
Inhalation	0,016762452	mg/min	O	0,004861111	mg/min
Absorption per task	1,50862069	mg/task	O	0,4375	mg/task
Exposure per task / Acute Dose	0,025143678	mg/kg bw	O	0,052710843	mg/kg bw
Exposure per day / Chronic Dose	0,006199811	mg/kg bw/day	O	0,012997194	mg/kg bw/day
Dermal					
Contact area between product and skin	0,258033333	m ²	S	0,106472167	m ²
Volume of contact	25,80333333	ml	O	10,64721667	ml
Quantity of contact (mg)	70	mg	S	70	mg
Dermal load (mg/cm ²)	0,027128278	mg/cm ²	O	0,065744882	mg/cm ²
Absorption (mg)	70	mg	O	70	mg
Exposure per task / Acute Dose	1,166666667	mg/kg bw	O	8,43373494	mg/kg bw
Exposure per day / Chronic Dose	0,287671233	mg/kg bw/day	O	2,079551081	mg/kg bw/day
Oral					
Exposure / Dose	accidental		S	accidental	
Intake					
Exposure per task / Acute Dose	1,166666667	mg/kg bw	S	8,43373494	mg/kg bw
Exposure per day / Chronic Dose	0,287671233	mg/kg bw/day	O	2,079551081	mg/kg bw/day
Post application phase		Task C: residence time			
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure	1,206896552	mg/m ³	O	1,206896552	mg/m ³
Inhalation	0,016762452	mg/min	O	0,004861111	mg/min
Absorption per task	1,50862069	mg/task	O	0,4375	mg/task
Exposure per task / Acute Dose	0,025143678	mg/kg bw	O	0,052710843	mg/kg bw
Exposure per day / Chronic Dose	0,006199811	mg/kg bw/day	O	0,012997194	mg/kg bw/day
Dermal					
Exposure per task / Acute Dose	no	mg/kg bw	S	no	mg/kg bw
Exposure per day / Chronic Dose	no	mg/kg bw/day	S	no	mg/kg bw/day
Oral					
Exposure / Dose	accidental		S	accidental	
Intake					
Exposure per task / Acute Dose	0,025143678	mg/kg bw	O	0,052710843	mg/kg bw
Exposure per day / Chronic Dose	0,006199811	mg/kg bw/day	O	0,012997194	mg/kg bw/day
Disposal		Task D: not applicable			

Scenario 33b: insecticide: spray, targetted spot**Scenario description**

Name of product	spray against wasps or plant lous	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Task B: spraying (horizontally) onto nest or plant + deposit time of aerosols

Number of tasks per year	52 tasks/yr	S	once per week, ConsExpo 9 tasks/yr
Duration of task	120 min/task	S	ConsExpo: exp. duration 240 min, spray duration 6 min
Quantity of product used per task	118,8 g/task	S	ConsExpo: 6 min, 0.33 g/s
Volume of product used per task	118,8 ml/task	O	
Quantity of active substance used per task	1188 mg/task	O	
Model inhalation exposure	Exposure to aerosols / Instantaneous release		
Room volume	15 m ³	S	Kitchen, ConsExpo 20 m ³
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,258033333 m ²	S	Forearms, Hands, 33% Head, 10% Lower legs
Contact area between product and skin children	0,106472167 m ²	S	Hands, Arms, 33% Head, 10% Legs children
Model oral exposure	accidental		

Post application phase

Task C: residence time

Number of tasks per year	52 tasks/yr	S	once per week
Duration of task	120 min/task	S	ConsExpo: exp. duration 240 min
Quantity of active substance used per task	1188 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	15 m ³	S	Kitchen, ConsExpo 20 m ³
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0 m ²	S	no direct contact
Contact area between product and skin children	0 m ²	S	no direct contact
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		19,8 mg/kg bw		143,1325301 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		2,820821918 mg/kg bw/day		20,39148374 mg/kg bw/day
Highest potential concentration in air		79,2 mg/m ³		79,2 mg/m ³
Inhalation acute		3,3 mg/kg bw		6,918072289 mg/kg bw
Inhalation chronic		0,470136986 mg/kg bw/day		0,985588381 mg/kg bw/day
Dermal acute		4,300555556 mg/kg bw		12,82797189 mg/kg bw
Dermal chronic		0,612681887 mg/kg bw/day		1,82754668 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		7,600555556 mg/kg bw		19,74604418 mg/kg bw
Daily intake chronic		1,082818874 mg/kg bw/day		2,813135061 mg/kg bw/day

Scenario 33b: insecticide: spray, targetted spot**Results / Output**

Mixing & Loading		Task A: not applicable			
Application		Task B: spraying (horizontally) onto nest or plant + deposit time of aerosols			
	Primary exposure	User	Secondary exposure	Bystander	
Inhalation					
Concentration of potential exposure		79,2 mg/m ³	O	79,2 mg/m ³	O
Inhalation		1,1 mg/min	O	0,319 mg/min	O
Absorption per task		99 mg/task	O	28,71 mg/task	O
Exposure per task / Acute Dose		1,65 mg/kg bw	O	3,459036145 mg/kg bw	O
Exposure per day / Chronic Dose		0,235068493 mg/kg bw/day	O	0,49279419 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,258033333 m ²	S	0,106472167 m ²	S
Volume of contact		25,80333333 ml	O	10,64721667 ml	O
Quantity of contact (mg)		258,0333333 mg	O	106,4721667 mg	O
Dermal load (mg/cm ²)		0,1 mg/cm ²	O	0,1 mg/cm ²	O
Absorption (mg)		258,0333333 mg	O	106,4721667 mg	O
Exposure per task / Acute Dose		4,300555556 mg/kg bw	O	12,82797189 mg/kg bw	O
Exposure per day / Chronic Dose		0,612681887 mg/kg bw/day	O	1,82754668 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		5,950555556 mg/kg bw	O	16,28700803 mg/kg bw	O
Exposure per day / Chronic Dose		0,847750381 mg/kg bw/day	O	2,32034087 mg/kg bw/day	O
Post application phase		Task C: residence time			
	Primary exposure	User	Secondary exposure	Bystander	
Inhalation					
Concentration of potential exposure		79,2 mg/m ³	O	79,2 mg/m ³	O
Inhalation		1,1 mg/min	O	0,319 mg/min	O
Absorption per task		99 mg/task	O	28,71 mg/task	O
Exposure per task / Acute Dose		1,65 mg/kg bw	O	3,459036145 mg/kg bw	O
Exposure per day / Chronic Dose		0,235068493 mg/kg bw/day	O	0,49279419 mg/kg bw/day	O
Dermal					
Exposure per task / Acute Dose	no	mg/kg bw	S	no	mg/kg bw
Exposure per day / Chronic Dose	no	mg/kg bw/day	S	no	mg/kg bw/day
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		1,65 mg/kg bw	O	3,459036145 mg/kg bw	O
Exposure per day / Chronic Dose		0,235068493 mg/kg bw/day	O	0,49279419 mg/kg bw/day	O
Disposal		Task D: not applicable			

Scenario 33c: insecticide: spray, crack and crevice

Scenario description

Name of product	spray against ants or silverfish	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product	1 %	S	Frame Formulation
Concentration of active substance in product (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Task B: spraying down in crack and crevice onto bottom + deposit time of aerosols

Number of tasks per year	52 tasks/yr	S	once per week, ConsExpo 9 tasks/yr
Duration of task	120 min/task	S	ConsExpo: exp. duration 240 min, spray duration 4 min
Quantity of product used per task	79,2 g/task	S	ConsExpo: 4 min, 0.33 g/s
Volume of product used per task	79,2 ml/task	O	
Quantity of active substance used per task	792 mg/task	O	
Model inhalation exposure	Exposure to aerosols / Instantaneous release		
Room volume	15 m ³	S	Kitchen, ConsExpo 20 m ³
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,2187 m ²	S	Forearms, Hands, 10% Lower legs
Contact area between product and skin children	0,0826605 m ²	S	Hands, Arms, 10% Legs children
Model oral exposure	accidental		

Post application phase

Task C: residence time

Number of tasks per year	52 tasks/yr	S	once per week
Duration of task	120 min/task	S	ConsExpo: exp. duration 240 min
Quantity of active substance used per task	792 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	15 m ³	S	Kitchen, ConsExpo 20 m ³
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0 m ²	S	no direct contact
Contact area between product and skin children	0 m ²	S	no direct contact
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		13,2 mg/kg bw		95,42168675 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		1,880547945 mg/kg bw/day		13,5943225 mg/kg bw/day
Highest potential concentration in air		52,8 mg/m ³		52,8 mg/m ³
Inhalation acute		2,2 mg/kg bw		4,612048193 mg/kg bw
Inhalation chronic		0,313424658 mg/kg bw/day		0,657058921 mg/kg bw/day
Dermal acute		3,645 mg/kg bw		9,959096386 mg/kg bw
Dermal chronic		0,519287671 mg/kg bw/day		1,41883017 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		5,845 mg/kg bw		14,57114458 mg/kg bw
Daily intake chronic		0,832712329 mg/kg bw/day		2,075889091 mg/kg bw/day

Scenario 33c: insecticide: spray, crack and crevice**Results / Output**

Mixing & Loading		Task A: not applicable				
Application		Task B: spraying down in crack and crevice onto bottom + deposit time of aerosols				
	Primary exposure	User	Secondary exposure	Bystander		
Inhalation						
Concentration of potential exposure		52,8 mg/m ³	O	52,8 mg/m ³	O	
Inhalation	0,733333333	mg/min	O	0,212666667	mg/min	O
Absorption per task		66 mg/task	O	19,14	mg/task	O
Exposure per task / Acute Dose		1,1 mg/kg bw	O	2,306024096	mg/kg bw	O
Exposure per day / Chronic Dose	0,156712329	mg/kg bw/day	O	0,32852946	mg/kg bw/day	O
Dermal						
Contact area between product and skin		0,2187 m ²	S	0,0826605	m ²	S
Volume of contact		21,87 ml	O	8,26605	ml	O
Quantity of contact (mg)		218,7 mg	O	82,6605	mg	O
Dermal load (mg/cm ²)		0,1 mg/cm ²	O	0,1	mg/cm ²	O
Absorption (mg)		218,7 mg	O	82,6605	mg	O
Exposure per task / Acute Dose		3,645 mg/kg bw	O	9,959096386	mg/kg bw	O
Exposure per day / Chronic Dose	0,519287671	mg/kg bw/day	O	1,41883017	mg/kg bw/day	O
Oral						
Exposure / Dose	accidental		S	accidental		S
Intake						
Exposure per task / Acute Dose		4,745 mg/kg bw	O	12,26512048	mg/kg bw	O
Exposure per day / Chronic Dose		0,676 mg/kg bw/day	O	1,74735963	mg/kg bw/day	O

Post application phase		Task C: residence time				
	Primary exposure	User	Secondary exposure	Bystander		
Inhalation						
Concentration of potential exposure		52,8 mg/m ³	O	52,8 mg/m ³	O	
Inhalation	0,733333333	mg/min	O	0,212666667	mg/min	O
Absorption per task		66 mg/task	O	19,14	mg/task	O
Exposure per task / Acute Dose		1,1 mg/kg bw	O	2,306024096	mg/kg bw	O
Exposure per day / Chronic Dose	0,156712329	mg/kg bw/day	O	0,32852946	mg/kg bw/day	O
Dermal						
Exposure per task / Acute Dose	no	mg/kg bw	S	no	mg/kg bw	S
Exposure per day / Chronic Dose	no	mg/kg bw/day	S	no	mg/kg bw/day	S
Oral						
Exposure / Dose	accidental		S	accidental		S
Intake						
Exposure per task / Acute Dose		1,1 mg/kg bw	O	2,306024096	mg/kg bw	O
Exposure per day / Chronic Dose	0,156712329	mg/kg bw/day	O	0,32852946	mg/kg bw/day	O

Disposal		Task D: not applicable			
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Scenario 34: insecticide: liquid, crack and crevice

Scenario description

Name of product	ant killer	S	
Physical state product (liquid/solid)	liquid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product (concentrate)	1 %	S	Frame Formulation
Concentration of active substance in product (concentrate) (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: simple dilution with water in bucket			
Number of tasks per year	52 tasks/yr	S	once per week
Duration of task	1,333333333 min/task	S	80 sec. [mixing spray, TNsG 2002 p. 252]
Volume of product used per task	1,4 ml/task	S	Info Online Apotheke
Quantity of water used per task	5 L/task	S	Frame Formulation
Quantity of product used per task	1,4 g/task	O	
Quantity of active substance used per task	14 mg/task	S	
Concentration of active substance in ready-for-use solution	2,8 mg/l	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between ready-for-use solution and air, limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
REM Evaporation from mixture, release area concentrate	0,002 m ²	S	bottle diameter 5 cm [TNsG 2002 p. 252]
REM Evaporation from mixture, release area ready-for-use solution	0,070685835 m ²	S	bucket diameter 30 cm
Model dermal exposure	Direct dermal contact		
Contact area between product (concentrate) and skin	0,0168 m ²	S	Fingertips
Model oral exposure	accidental		

Application

Task B: pouring the ready-for-use solution			
Number of tasks per year	52 tasks/yr	S	once per week
Duration of task	10 min/task	S	
Surface (treated per task)	5 m ² /task	S	Frame Formulation
Quantity of ready-for-use solution used per m ²	1000 ml/m ²	S	
Quantity of ready-for-use solution used per task	5000 ml/task	O	
Concentration of active substance in ready-for-use solution	2,8 mg/l	O	
Quantity of active substance used per task	14 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use solution and skin	0,2187 m ²	S	Forearms, Hands, 10% Lower legs
Model oral exposure	accidental		

Post application phase

Task C: residence time			
Number of tasks per year	52 tasks/yr	S	once per week
Duration of task	480 min/task	S	8 hours
Concentration of active substance in ready-for-use solution	2,8 mg/l	O	
Quantity of active substance used per task	14 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	15 m ³	S	Terrace (Kitchen)
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use solution and skin	0,042 m ²	S	50% Hands
Contact area between ready-for-use solution and skin children	0,01040125 m ²	S	50% Hands Children
Model oral exposure	accidental		

Disposal

Task D: excessive ready-for-use solution is disposed to the main drainage			
Number of tasks per year	52 tasks/yr	S	once per week
Duration of task	1,333333333 min/task	S	80 sec. [see mixing & loading]
Volume of ready-for-use solution disposed per task	0 L/task	S	
Concentration of active substance in ready-for-use solution	2,8 mg/l	O	
Quantity of active substance disposed per task	0 mg/task	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between ready-for-use solution and air, limited to vapour pressure)		
Room volume	1 m ³	S	
REM Evaporation from mixture, release area ready-for-use solution	0,070685835 m ²	S	bucket diameter 30 cm
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use solution and skin	0,198 m ²	S	Hands, Forearms
Model oral exposure	accidental		

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		0,233333333 mg/kg bw		1,686746988 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		0,033242009 mg/kg bw/day		0,24030368 mg/kg bw/day
Highest potential concentration in air		14 mg/m ³		14 mg/m ³
Inhalation acute		0,102083466 mg/kg bw		0,214006303 mg/kg bw
Inhalation chronic		0,014543398 mg/kg bw/day		0,030488569 mg/kg bw/day
Dermal acute		0,233333333 mg/kg bw		0,000350886 mg/kg bw
Dermal chronic		0,033242009 mg/kg bw/day		4,99892E-05 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		0,233333333 mg/kg bw		0,214357188 mg/kg bw
Daily intake chronic		0,033242009 mg/kg bw/day		0,030538558 mg/kg bw/day

Scenario 34: insecticide: liquid, crack and crevice**Results / Output**

Mixing & Loading		Task A: simple dilution with water in bucket			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		0,000574395 mg/m ³	O	0,000574395 mg/m ³	O
Inhalation		7,9777E-06 mg/min	O	2,31353E-06 mg/min	O
Absorption per task		7,9777E-06 mg/task	O	2,31353E-06 mg/task	O
Exposure per task / Acute Dose		1,32962E-07 mg/kg bw	O	2,78739E-07 mg/kg bw	O
Exposure per day / Chronic Dose		1,89425E-08 mg/kg bw/day	O	3,97108E-08 mg/kg bw/day	O
Dermal					
Contact area between product (concentrate) and skin		0,0168 m ²	S		
Volume of contact		1,68 ml	O		
Quantity of contact (mg)		14 mg	S		
Dermal load (mg/cm ²)		0,083333333 mg/cm ²	O		
Absorption (mg)		14 mg	O		
Exposure per task / Acute Dose		0,233333333 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		0,033242009 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose		accidental	S	accidental	S
Intake					
Exposure per task / Acute Dose		0,233333333 mg/kg bw	S	2,78739E-07 mg/kg bw	O
Exposure per day / Chronic Dose		0,033242009 mg/kg bw/day	O	3,97108E-08 mg/kg bw/day	O

Application		Task B: pouring the ready-for-use solution			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		14 mg/m ³	O	14 mg/m ³	O
Inhalation		0,194444444 mg/min	O	0,056388889 mg/min	O
Absorption per task		1,458333333 mg/task	O	0,422916667 mg/task	O
Exposure per task / Acute Dose		0,024305556 mg/kg bw	O	0,050953815 mg/kg bw	O
Exposure per day / Chronic Dose		0,003462709 mg/kg bw/day	O	0,007259174 mg/kg bw/day	O
Dermal					
Contact area between ready-for-use solution and skin		0,2187 m ²	S		
Volume of contact		21,87 ml	O		
Quantity of contact (mg)		0,061236 mg	O		
Dermal load (mg/cm ²)		0,000028 mg/cm ²	O		
Absorption (mg)		0,061236 mg	O		
Exposure per task / Acute Dose		0,0010206 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		0,000145401 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose		accidental	S	accidental	S
Intake					
Exposure per task / Acute Dose		0,025326156 mg/kg bw	O	0,050953815 mg/kg bw	O
Exposure per day / Chronic Dose		0,00360811 mg/kg bw/day	O	0,007259174 mg/kg bw/day	O

Post application phase		Task C: residence time			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		0,933333333 mg/m ³	O	0,933333333 mg/m ³	O
Inhalation		0,012962963 mg/min	O	0,003759259 mg/min	O
Absorption per task		4,666666667 mg/task	O	1,353333333 mg/task	O
Exposure per task / Acute Dose		0,077777778 mg/kg bw	O	0,163052209 mg/kg bw	O
Exposure per day / Chronic Dose		0,01108067 mg/kg bw/day	O	0,023229356 mg/kg bw/day	O
Dermal					
Contact area between ready-for-use solution and skin		0,042 m ²	S	0,01040125 m ²	S
Volume of contact		4,2 ml	O	1,040125 ml	O
Quantity of contact (mg)		0,01176 mg	O	0,00291235 mg	O
Dermal load (mg/cm ²)		0,000028 mg/cm ²	O	0,000028 mg/cm ²	O
Absorption (mg)		0,01176 mg	O	0,00291235 mg	O
Exposure per task / Acute Dose		0,000196 mg/kg bw	O	0,000350886 mg/kg bw	O
Exposure per day / Chronic Dose		2,79233E-05 mg/kg bw/day	O	4,99892E-05 mg/kg bw/day	O
Oral					
Exposure / Dose		accidental	S	accidental	S
Intake					
Exposure per task / Acute Dose		0,077973778 mg/kg bw	O	0,163403094 mg/kg bw	O
Exposure per day / Chronic Dose		0,011108593 mg/kg bw/day	O	0,023279345 mg/kg bw/day	O

Disposal		Task D: expensive ready-for-use solution is disposed to the main drainage			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		0 mg/m ³	O	0 mg/m ³	O
Inhalation		0 mg/min	O	0 mg/min	O
Absorption per task		0 mg/task	O	0 mg/task	O
Exposure per task / Acute Dose		0 mg/kg bw	O	0 mg/kg bw	O
Exposure per day / Chronic Dose		0 mg/kg bw/day	O	0 mg/kg bw/day	O
Dermal					
Contact area between ready-for-use solution and skin		0,198 m ²	S		
Volume of contact		19,8 ml	O		
Quantity of contact (mg)		0 mg	S		
Dermal load (mg/cm ²)		0 mg/cm ²	O		
Absorption (mg)		0 mg	O		
Exposure per task / Acute Dose		0 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		0 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose		accidental	S	accidental	S
Intake					
Exposure per task / Acute Dose		0 mg/kg bw	O	0 mg/kg bw	O
Exposure per day / Chronic Dose		0 mg/kg bw/day	O	0 mg/kg bw/day	O

Scenario 35: insecticide: dilution of powder, crack and crevice

Scenario description

Name of product	ant killer	S	
Physical state product (liquid/solid)	solid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product (concentrate)	1 %	S	Frame Formulation
Concentration of active substance in product (concentrate) (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature
Mixing & Loading			
Task A: simple dilution with water in bucket			
Number of tasks per year	52 tasks/yr	S	once per week
Duration of task	1,333333333 min/task	S	80 sec. [mixing spray TNsG 2002 p. 252]
Quantity of product used per task	50 g/task	S	Frame formulation 10 g/L
Quantity of water used per task	5 L/task	S	
Volume of product used per task	50 ml/task	S	
Quantity of active substance used per task	500 mg/task	S	
Concentration of active substance in ready-for-use solution	100 mg/l	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between ready-for-use solution and air, limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
REM Evaporation from mixture, release area concentrate	0,002 m ²	S	bottle diameter 5 cm [TNsG 2002 p. 252]
REM Evaporation from mixture, release area ready-for-use solution	0,070685835 m ²	S	bucket diameter 30 cm
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,042 m ²	S	50% Hands
Contact amount between active substance and skin	0,5 mg	S	0.1% of whole amount used [see HERA Perborate]
Model oral exposure	accidental		
Application			
Task B: pouring the ready-for-use solution			
Number of tasks per year	52 tasks/yr	S	once per week
Duration of task	15 min/task	S	
Surface (treated per task)	4 m ² /task	S	
Quantity of ready-for-use solution used per m ²	1000 ml/m ²	S	Frame formulation 1L per m ²
Quantity of ready-for-use solution used per task	4000 ml/task	O	
Concentration of active substance in ready-for-use solution	100 mg/l	O	
Quantity of active substance used per task	400 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use solution and skin	0,2187 m ²	S	Forearms, Hands, 10% Lower legs
Model oral exposure	accidental		
Post application phase			
Task C: residence time			
Number of tasks per year	52 tasks/yr	S	once per week
Duration of task	480 min/task	S	8 hours
Concentration of active substance in ready-for-use solution	100 mg/l	O	
Quantity of active substance used per task	400 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	15 m ³	S	Terrace (Kitchen)
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use solution and skin	0,042 m ²	S	50% Hands
Contact area between ready-for-use solution and skin children	0,01040125 m ²	S	50% Hands Children
Model oral exposure	accidental		
Disposal			
Task D: excessive ready-for-use solution is disposed to the main drainage			
Number of tasks per year	52 tasks/yr	S	once per week
Duration of task	1,333333333 min/task	S	80 sec. [see mixing & loading]
Volume of ready-for-use solution disposed per task	1 L/task	S	
Concentration of active substance in ready-for-use solution	100 mg/l	O	
Quantity of active substance disposed per task	100 mg/task	O	
Model inhalation exposure	Exposure to vapour / Fugacity concept (equilibrium between ready-for-use solution and air, limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
REM Evaporation from mixture, release area ready-for-use solution	0,070685835 m ²	S	bucket diameter 30 cm
Model dermal exposure	Direct dermal contact		
Contact area between ready-for-use solution and skin	0,198 m ²	S	Hands, Forearms
Model oral exposure	accidental		

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)	8,333333333	mg/kg bw	60,24096386	mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)	1,187214612	mg/kg bw/day	8,582274303	mg/kg bw/day
Highest potential concentration in air	205,1493218	mg/m ³	205,1493218	mg/m ³
Inhalation acute	2,756474744	mg/kg bw	5,778633801	mg/kg bw
Inhalation chronic	0,392703251	mg/kg bw/day	0,823257418	mg/kg bw/day
Dermal acute	0,084783333	mg/kg bw	0,012531627	mg/kg bw
Dermal chronic	0,012078721	mg/kg bw/day	0,001785328	mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute	2,841258078	mg/kg bw	5,791165428	mg/kg bw
Daily intake chronic	0,404781973	mg/kg bw/day	0,825042746	mg/kg bw/day

Scenario 35: insecticide: dilution of powder, crack and crevice

Results / Output

Mixing & Loading		Task A: simple dilution with water in bucket			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		0,02051409 mg/m ³	O	0,02051409 mg/m ³	O
Inhalation		0,000284918 mg/min	O	8,26262E-05 mg/min	O
Absorption per task		0,000284918 mg/task	O	8,26262E-05 mg/task	O
Exposure per task / Acute Dose		4,74863E-06 mg/kg bw	O	9,95496E-06 mg/kg bw	O
Exposure per day / Chronic Dose		6,76517E-07 mg/kg bw/day	O	1,41824E-06 mg/kg bw/day	O
Dermal					
Contact area between product (powder) and skin		0,042 m ²	S		
Quantity of contact (mg)		0,5 mg	S		
Dermal load (mg/cm ²)		0,001190476 mg/cm ²	O		
Absorption (mg)		0,5 mg	O		
Exposure per task / Acute Dose		0,008333333 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		0,001187215 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,008338082 mg/kg bw	O	9,95496E-06 mg/kg bw	O
Exposure per day / Chronic Dose		0,001187891 mg/kg bw/day	O	1,41824E-06 mg/kg bw/day	O

Application		Task B: pouring the ready-for-use solution			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		205,1493218 mg/m ³	S	205,1493218 mg/m ³	S
Inhalation		2,849296137 mg/min	O	0,82629588 mg/min	O
Absorption per task		32,05458154 mg/task	O	9,295828646 mg/task	O
Exposure per task / Acute Dose		0,534243026 mg/kg bw	O	1,119979355 mg/kg bw	O
Exposure per day / Chronic Dose		0,076111335 mg/kg bw/day	O	0,159558703 mg/kg bw/day	O
Dermal					
Contact area between ready-for-use solution and skin		0,2187 m ²	S		
Volume of contact		21,87 ml	O		
Quantity of contact (mg)		2,187 mg	O		
Dermal load (mg/cm ²)		0,001 mg/cm ²	O		
Absorption (mg)		2,187 mg	O		
Exposure per task / Acute Dose		0,03645 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		0,005192877 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,570693026 mg/kg bw	O	1,119979355 mg/kg bw	O
Exposure per day / Chronic Dose		0,081304212 mg/kg bw/day	O	0,159558703 mg/kg bw/day	O

Post application phase		Task C: residence time			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		26,66666667 mg/m ³	O	26,66666667 mg/m ³	O
Inhalation		0,37037037 mg/min	O	0,107407407 mg/min	O
Absorption per task		133,3333333 mg/task	O	38,66666667 mg/task	O
Exposure per task / Acute Dose		2,222222222 mg/kg bw	O	4,658634538 mg/kg bw	O
Exposure per day / Chronic Dose		0,316590563 mg/kg bw/day	O	0,663695879 mg/kg bw/day	O
Dermal					
Contact area between ready-for-use solution and skin		0,042 m ²	S	0,01040125 m ²	S
Volume of contact		4,2 ml	O	1,040125 ml	O
Quantity of contact (mg)		0,42 mg	O	0,1040125 mg	O
Dermal load (mg/cm ²)		0,001 mg/cm ²	O	0,001 mg/cm ²	O
Absorption (mg)		0,42 mg	O	0,1040125 mg	O
Exposure per task / Acute Dose		0,007 mg/kg bw	O	0,012531627 mg/kg bw	O
Exposure per day / Chronic Dose		0,00099726 mg/kg bw/day	O	0,001785328 mg/kg bw/day	O
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		2,229222222 mg/kg bw	O	4,671166165 mg/kg bw	O
Exposure per day / Chronic Dose		0,317587823 mg/kg bw/day	O	0,665481207 mg/kg bw/day	O

Disposal		Task D: excessive ready-for-use solution is disposed to the main drainage			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		0,020510724 mg/m ³	O	0,020510724 mg/m ³	O
Inhalation		0,000284871 mg/min	O	8,26126E-05 mg/min	O
Absorption per task		0,000284871 mg/task	O	8,26126E-05 mg/task	O
Exposure per task / Acute Dose		4,74785E-06 mg/kg bw	O	9,95333E-06 mg/kg bw	O
Exposure per day / Chronic Dose		6,76406E-07 mg/kg bw/day	O	1,41801E-06 mg/kg bw/day	O
Dermal					
Contact area between ready-for-use solution and skin		0,198 m ²	S		
Volume of contact		19,8 ml	O		
Quantity of contact (mg)		1,98 mg	O		
Dermal load (mg/cm ²)		0,001 mg/cm ²	O		
Absorption (mg)		1,98 mg	O		
Exposure per task / Acute Dose		0,033 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		0,00470137 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose	accidental		S	accidental	S
Intake					
Exposure per task / Acute Dose		0,033004748 mg/kg bw	O	9,95333E-06 mg/kg bw	O
Exposure per day / Chronic Dose		0,004702046 mg/kg bw/day	O	1,41801E-06 mg/kg bw/day	O

Scenario 35b: insecticide: powder, crack and crevice

Scenario description

Name of product	ant killer	S	
Physical state product (liquid/solid)	solid	S	
Density product	1 g/cm ³	D	
Concentration of active substance in product (concentrate)	1 %	S	Frame Formulation
Concentration of active substance in product (concentrate) (mg/l)	10000 mg/l	O	
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Task A: not applicable

Application

Task B: throwing the powder

Number of tasks per year	52 tasks/yr	S	once per week
Duration of task	15 min/task	S	
Surface (treated per task)	1 m ² /task	S	
Quantity of product used per m ²	8 g/m ²	S	Frame formulation
Quantity of product used per task	8 g/task	O	
Volume of product used per task	8 ml/task	O	
Quantity of active substance used per task	80 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,042 m ²	S	50% Hands
Contact amount between active substance and skin	0,08 mg	S	0.1% of whole amount used [see HERA Perborate]
Model oral exposure	accidental		

Post application phase

Task C: residence time

Number of tasks per year	52 tasks/yr	S	once per week
Duration of task	480 min/task	S	8 hours
Quantity of active substance used per task	80 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	15 m ³	S	Terrace (Kitchen)
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,042 m ²	S	50% Hands
Contact area between product and skin children	0,01040125 m ²	S	50% Hands Children
Contact amount between active substance and skin	0,08 mg	S	0.1% of whole amount used
Model oral exposure	accidental		

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		1,333333333 mg/kg bw		9,638554217 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		0,189954338 mg/kg bw/day		1,373163888 mg/kg bw/day
Highest potential concentration in air		80 mg/m ³		80 mg/m ³
Inhalation acute		0,652777778 mg/kg bw		1,368473896 mg/kg bw
Inhalation chronic		0,092998478 mg/kg bw/day		0,194960665 mg/kg bw/day
Dermal acute		0,002666667 mg/kg bw		0,009638554 mg/kg bw
Dermal chronic		0,000379909 mg/kg bw/day		0,001373164 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		0,655444444 mg/kg bw		1,37811245 mg/kg bw
Daily intake chronic		0,093378387 mg/kg bw/day		0,196333828 mg/kg bw/day

Scenario 35b: insecticide: powder, crack and crevice**Results / Output**

Mixing & Loading		Task A: not applicable			
Application		Task B: throwing the powder			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		80 mg/m ³	O	80 mg/m ³	O
Inhalation		1,111111111 mg/min	O	0,322222222 mg/min	O
Absorption per task		12,5 mg/task	O	3,625 mg/task	O
Exposure per task / Acute Dose		0,208333333 mg/kg bw	O	0,436746988 mg/kg bw	O
Exposure per day / Chronic Dose		0,029680365 mg/kg bw/day	O	0,062221489 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,042 m ²	S		
Quantity of contact (mg)		0,08 mg	S		
Dermal load (mg/cm ²)		0,000190476 mg/cm ²	O		
Absorption (mg)		0,08 mg	O		
Exposure per task / Acute Dose		0,001333333 mg/kg bw	O	no	S
Exposure per day / Chronic Dose		0,000189954 mg/kg bw/day	O	no	S
Oral					
Exposure / Dose		accidental	S	accidental	S
Intake					
Exposure per task / Acute Dose		0,209666667 mg/kg bw	O	0,436746988 mg/kg bw	S
Exposure per day / Chronic Dose		0,02987032 mg/kg bw/day	O	0,062221489 mg/kg bw/day	O
Post application phase		Task C: residence time			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		5,333333333 mg/m ³	O	5,333333333 mg/m ³	O
Inhalation		0,074074074 mg/min	O	0,021481481 mg/min	O
Absorption per task		26,66666667 mg/task	O	7,733333333 mg/task	O
Exposure per task / Acute Dose		0,444444444 mg/kg bw	O	0,931726908 mg/kg bw	O
Exposure per day / Chronic Dose		0,063318113 mg/kg bw/day	O	0,132739176 mg/kg bw/day	O
Dermal					
Contact area between product and skin		0,042 m ²	S	0,01040125 m ²	S
Quantity of contact (mg)		0,08 mg	S	0,08 mg	S
Dermal load (mg/cm ²)		0,000190476 mg/cm ²	O	0,000769138 mg/cm ²	O
Absorption (mg)		0,08 mg	O	0,08 mg	O
Exposure per task / Acute Dose		0,001333333 mg/kg bw	O	0,009638554 mg/kg bw	O
Exposure per day / Chronic Dose		0,000189954 mg/kg bw/day	O	0,001373164 mg/kg bw/day	O
Oral					
Exposure / Dose		accidental	S	accidental	S
Intake					
Exposure per task / Acute Dose		0,445777778 mg/kg bw	O	0,941365462 mg/kg bw	O
Exposure per day / Chronic Dose		0,063508067 mg/kg bw/day	O	0,13411234 mg/kg bw/day	O
Disposal		Task D: not applicable			

Scenario 36: insecticide: evaporator, indoor**Scenario description**

Name of product	electrical evaporator	S	
Physical state product (liquid/solid)	solid	S	
Concentration of active substance in product	1 mg/plate	S	Frame Formulation
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

	Task A: Loading the evaporator		
Number of tasks per year	150 tasks/yr	S	ConsExpo 150 tasks/yr
Duration of task	1 min/task	S	
Quantity of product used per task	1 plate/task	S	Frame formulation 7 mg/15 m ² in 8 h
Quantity of active substance used per task	1 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,00336 m ²	S	20% Fingertips (2 Fingers)
Contact amount between active substance and skin	0,01 mg/task	S	1% of whole amount used
Model oral exposure	accidental		

Application

	Task B: using the evaporator		
Number of tasks per year	150 tasks/yr	S	ConsExpo 150 tasks/yr
Duration of task	600 min/task	S	Frame formulation 10 hours, ConsExpo 480 min
Quantity of active substance used per task	1 mg/task	O	Frame formulation 7 mg/15 m ² in 8 h
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	16 m ³	S	Sleeping room
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0 m ²	S	no direct contact
Contact area between product and skin children	0 m ²	S	no direct contact
Model oral exposure	accidental		

Post application phase

Task C: not applicable

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		0,016666667 mg/kg bw		0,120481928 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		0,006849315 mg/kg bw/day		0,049513121 mg/kg bw/day
Highest potential concentration in air		1 mg/m ³		1 mg/m ³
Inhalation acute		0,006684028 mg/kg bw		0,014012299 mg/kg bw
Inhalation chronic		0,002746861 mg/kg bw/day		0,005758479 mg/kg bw/day
Dermal acute		0,000166667 mg/kg bw		0 mg/kg bw
Dermal chronic		6,84932E-05 mg/kg bw/day		0 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		0,006850694 mg/kg bw		0,014012299 mg/kg bw
Daily intake chronic		0,002815354 mg/kg bw/day		0,005758479 mg/kg bw/day

Scenario 36: insecticide: evaporator, indoor**Results / Output**

Mixing & Loading		Task A: Loading the evaporator				
		Primary exposure	User		Secondary exposure	Bystander
Inhalation						
Concentration of potential exposure			1 mg/m ³	O		1 mg/m ³
Inhalation			0,013888889 mg/min	O		0,004027778 mg/min
Absorption per task			0,010416667 mg/task	O		0,003020833 mg/task
Exposure per task / Acute Dose			0,000173611 mg/kg bw	O		0,000363956 mg/kg bw
Exposure per day / Chronic Dose			7,1347E-05 mg/kg bw/day	O		0,000149571 mg/kg bw/day
Dermal						
Contact area between product and skin			0,00336 m ²	S		
Quantity of contact (mg)			0,01 mg	S		
Dermal load (mg/cm ²)			0,000297619 mg/cm ²	O		
Absorption (mg)			0,01 mg	O		
Exposure per task / Acute Dose			0,000166667 mg/kg bw	O	no	mg/kg bw
Exposure per day / Chronic Dose			6,84932E-05 mg/kg bw/day	O	no	mg/kg bw/day
Oral						
Exposure / Dose		accidental		S	accidental	
Intake						
Exposure per task / Acute Dose			0,000340278 mg/kg bw	O		0,000363956 mg/kg bw
Exposure per day / Chronic Dose			0,00013984 mg/kg bw/day	O		0,000149571 mg/kg bw/day

Application		Task B: using the evaporator				
		Primary exposure	User		Secondary exposure	Bystander
Inhalation						
Concentration of potential exposure			0,0625 mg/m ³	O		0,0625 mg/m ³
Inhalation			0,000868056 mg/min	O		0,000251736 mg/min
Absorption per task			0,390625 mg/task	O		0,11328125 mg/task
Exposure per task / Acute Dose			0,006510417 mg/kg bw	O		0,013648343 mg/kg bw
Exposure per day / Chronic Dose			0,002675514 mg/kg bw/day	O		0,005608908 mg/kg bw/day
Dermal						
Exposure per task / Acute Dose		no	mg/kg bw	S	no	mg/kg bw
Exposure per day / Chronic Dose		no	mg/kg bw/day	S	no	mg/kg bw/day
Oral						
Exposure / Dose		accidental		S	accidental	
Intake						
Exposure per task / Acute Dose			0,006510417 mg/kg bw	O		0,013648343 mg/kg bw
Exposure per day / Chronic Dose			0,002675514 mg/kg bw/day	O		0,005608908 mg/kg bw/day

Post application phase	Task C: not applicable
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Disposal	Task D: not applicable
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Scenario 36b: insecticide: evaporator, wardrobe**Scenario description**

Name of product	strip against moth	S	
Physical state product (liquid/solid)	solid	S	
Concentration of active substance in product	1 mg/strip	S	<i>Frame formulation</i>
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	<i>room temperature</i>

Mixing & Loading

Task A: placing the strip into the wardrobe			
Number of tasks per year	4 tasks/yr	S	<i>every three month</i>
Duration of task	1 min/task	S	
Quantity of product used per task	1 strip/task	S	
Quantity of active substance used per task	1 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	<i>cloud around user</i>
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,00336 m ²	S	<i>20% Fingertips (2 Fingers)</i>
Contact amount between active substance and skin	0,001 mg/task	S	<i>0.1% of whole amount used [see HERA Perborate]</i>
Model oral exposure	accidental		

Application

Task B: opening the wardrobe			
Number of tasks per year	365 tasks/yr	S	<i>once per day</i>
Duration of task	5 min/task	S	
Quantity of active substance used per task	1 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	<i>head in wardrobe (1x2x0.5 m)</i>
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0 m ²	S	<i>no direct contact</i>
Contact area between product and skin children	0 m ²	S	<i>no direct contact</i>
Model oral exposure	accidental		

Post application phase

Task C: not applicable

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		0,01666667 mg/kg bw		0,120481928 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		0,000182648 mg/kg bw/day		0,00132035 mg/kg bw/day
Highest potential concentration in air		1 mg/m ³		1 mg/m ³
Inhalation acute		0,001041667 mg/kg bw		0,002183735 mg/kg bw
Inhalation chronic		0,000182648 mg/kg bw/day		0,00132035 mg/kg bw/day
Dermal acute		1,66667E-05 mg/kg bw		0 mg/kg bw
Dermal chronic		1,82648E-07 mg/kg bw/day		0 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		0,001058333 mg/kg bw		0,002183735 mg/kg bw
Daily intake chronic		0,000182648 mg/kg bw/day		0,00132035 mg/kg bw/day

Scenario 36b: insecticide: evaporator, wardrobe**Results / Output**

Mixing & Loading		Task A: placing the strip into the wardrobe				
		Primary exposure	User		Secondary exposure	Bystander
Inhalation						
Concentration of potential exposure			1 mg/m ³	O		1 mg/m ³
Inhalation			0,013888889 mg/min	O		0,004027778 mg/min
Absorption per task			0,010416667 mg/task	O		0,003020833 mg/task
Exposure per task / Acute Dose			0,000173611 mg/kg bw	O		0,000363956 mg/kg bw
Exposure per day / Chronic Dose			1,90259E-06 mg/kg bw/day	O		3,98856E-06 mg/kg bw/day
Dermal						
Contact area between product and skin			0,00336 m ²	S		
Quantity of contact (mg)			0,001 mg	S		
Dermal load (mg/cm ²)			2,97619E-05 mg/cm ²	O		
Absorption (mg)			0,001 mg	O		
Exposure per task / Acute Dose			1,66667E-05 mg/kg bw	O	no	mg/kg bw
Exposure per day / Chronic Dose			1,82648E-07 mg/kg bw/day	O	no	mg/kg bw/day
Oral						
Exposure / Dose		accidental		S	accidental	
Intake						
Exposure per task / Acute Dose			0,000190278 mg/kg bw	O		0,000363956 mg/kg bw
Exposure per day / Chronic Dose			2,08524E-06 mg/kg bw/day	O		3,98856E-06 mg/kg bw/day

Application		Task B: opening the wardrobe				
		Primary exposure	User		Secondary exposure	Bystander
Inhalation						
Concentration of potential exposure			1 mg/m ³	O		1 mg/m ³
Inhalation			0,013888889 mg/min	O		0,004027778 mg/min
Absorption per task			0,052083333 mg/task	O		0,015104167 mg/task
Exposure per task / Acute Dose			0,000868056 mg/kg bw	O		0,001819779 mg/kg bw
Exposure per day / Chronic Dose			0,000182648 mg/kg bw/day	S		0,00132035 mg/kg bw/day
Dermal						
Exposure per task / Acute Dose		no	mg/kg bw	S	no	mg/kg bw
Exposure per day / Chronic Dose		no	mg/kg bw/day	S	no	mg/kg bw/day
Oral						
Exposure / Dose		accidental		S	accidental	
Intake						
Exposure per task / Acute Dose			0,000868056 mg/kg bw	O		0,001819779 mg/kg bw
Exposure per day / Chronic Dose			0,000182648 mg/kg bw/day	S		0,00132035 mg/kg bw/day

Post application phase	Task C: not applicable
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Disposal	Task D: not applicable
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Scenario 36c: insecticide: evaporator, dustbin**Scenario description**

Name of product	dispenser for dustbins	S	
Physical state product (liquid/solid)	solid	S	
Concentration of active substance in product	1 mg/dispenser	S	Frame formulation
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

	Task A: placing the dispenser into the dustbin		
Number of tasks per year	6 tasks/yr	S	every two month, frame formulation
Duration of task	1 min/task	S	
Quantity of product used per task	1 dispenser/task	S	
Quantity of active substance used per task	1 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0,00336 m ²	S	20% Fingertips (2 Fingers)
Contact amount between active substance and skin	0,01 mg/task	S	1% of whole amount used
Model oral exposure	accidental		

Application

	Task B: opening the dustbin		
Number of tasks per year	365 tasks/yr	S	once per day
Duration of task	5 min/task	S	
Quantity of active substance used per task	1 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)		
Room volume	1 m ³	S	cloud around user during opening
Model dermal exposure	Direct dermal contact		
Contact area between product and skin	0 m ²	S	no direct contact
Contact area between product and skin children	0 m ²	S	no direct contact
Model oral exposure	accidental		

Post application phase

Task C: not applicable

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		0,01666667 mg/kg bw		0,120481928 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		0,000273973 mg/kg bw/day		0,001980525 mg/kg bw/day
Highest potential concentration in air		1 mg/m ³		1 mg/m ³
Inhalation acute		0,001041667 mg/kg bw		0,002183735 mg/kg bw
Inhalation chronic		0,000273973 mg/kg bw/day		0,001825762 mg/kg bw/day
Dermal acute		0,000166667 mg/kg bw		0 mg/kg bw
Dermal chronic		2,73973E-06 mg/kg bw/day		0 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		0,001208333 mg/kg bw		0,002183735 mg/kg bw
Daily intake chronic		0,000273973 mg/kg bw/day		0,001825762 mg/kg bw/day

Scenario 36c: insecticide: evaporator, dustbin**Results / Output**

Mixing & Loading		Task A: placing the dispenser into the dustbin			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure			1 mg/m ³	O	1 mg/m ³
Inhalation			0,013888889 mg/min	O	0,004027778 mg/min
Absorption per task			0,010416667 mg/task	O	0,003020833 mg/task
Exposure per task / Acute Dose			0,000173611 mg/kg bw	O	0,000363956 mg/kg bw
Exposure per day / Chronic Dose			2,85388E-06 mg/kg bw/day	O	5,98284E-06 mg/kg bw/day
Dermal					
Contact area between product and skin			0,00336 m ²	S	
Quantity of contact (mg)			0,01 mg	S	
Dermal load (mg/cm ²)			0,000297619 mg/cm ²	O	
Absorption (mg)			0,01 mg	O	
Exposure per task / Acute Dose			0,000166667 mg/kg bw	O	no
Exposure per day / Chronic Dose			2,73973E-06 mg/kg bw/day	O	no
Oral					
Exposure / Dose		accidental		S	accidental
Intake					
Exposure per task / Acute Dose			0,000340278 mg/kg bw	O	0,000363956 mg/kg bw
Exposure per day / Chronic Dose			5,59361E-06 mg/kg bw/day	O	5,98284E-06 mg/kg bw/day

Application		Task B: opening the dustbin			
		Primary exposure	User	Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure			1 mg/m ³	O	1 mg/m ³
Inhalation			0,013888889 mg/min	O	0,004027778 mg/min
Absorption per task			0,052083333 mg/task	O	0,015104167 mg/task
Exposure per task / Acute Dose			0,000868056 mg/kg bw	O	0,001819779 mg/kg bw
Exposure per day / Chronic Dose			0,000273973 mg/kg bw/day	S	0,001819779 mg/kg bw/day
Dermal					
Exposure per task / Acute Dose		no	mg/kg bw	S	no
Exposure per day / Chronic Dose		no	mg/kg bw/day	S	no
Oral					
Exposure / Dose		accidental		S	accidental
Intake					
Exposure per task / Acute Dose			0,000868056 mg/kg bw	O	0,001819779 mg/kg bw
Exposure per day / Chronic Dose			0,000273973 mg/kg bw/day	S	0,001819779 mg/kg bw/day

Post application phase	Task C: not applicable
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Disposal	Task D: not applicable
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Scenario 37: insecticide: strip

Scenario description

Name of product	strip against flying insects in living rooms	S	
Physical state product (liquid/solid)	solid	S	
Concentration of active substance in product	1 mg/strip	S	Frame formulation
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Number of tasks per year	Task A: hanging up the strip	6 tasks/yr	S	every two month
Duration of task		1 min/task	S	
Quantity of product used per task		1 strip/task	S	Frame formulation 1 strip for 20-40 m ³
Quantity of active substance used per task		1 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)	1 m ³	S	cloud around user
Room volume	Direct dermal contact	0,00336 m ²	S	20% Fingertips (2 Fingers)
Model dermal exposure		0,1 mg/task	S	0.1% of whole amount used [see HERA Perborate]
Contact area between product and skin	accidental			
Contact amount between active substance and skin				
Model oral exposure				

Application

Number of tasks per year	Task B: using the strip	365 tasks/yr	S	every day
Duration of task		480 min/task	S	time in room per day, 8 hours
Quantity of active substance used per task		1 mg/task	O	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)	15 m ³	S	Kitchen
Room volume	Direct dermal contact	0 m ²	S	no direct contact
Model dermal exposure		0 m ²	S	no direct contact
Contact area between product and skin	accidental			
Contact area between product and skin children				
Model oral exposure				

Post application phase

Task C: not applicable

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		0,016666667 mg/kg bw		0,120481928 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		0,000273973 mg/kg bw/day		0,001980525 mg/kg bw/day
Highest potential concentration in air		1 mg/m ³		1 mg/m ³
Inhalation acute		0,005729167 mg/kg bw		0,012010542 mg/kg bw
Inhalation chronic		0,000273973 mg/kg bw/day		0,001980525 mg/kg bw/day
Dermal acute		0,001666667 mg/kg bw		0 mg/kg bw
Dermal chronic		2,73973E-05 mg/kg bw/day		0 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		0,007395833 mg/kg bw		0,012010542 mg/kg bw
Daily intake chronic		0,000273973 mg/kg bw/day		0,001980525 mg/kg bw/day

Scenario 37: insecticide: strip**Results / Output**

Mixing & Loading		Task A: hanging up the strip				
		Primary exposure	User		Secondary exposure	Bystander
Inhalation						
Concentration of potential exposure			1 mg/m ³	O		1 mg/m ³
Inhalation			0,013888889 mg/min	O		0,004027778 mg/min
Absorption per task			0,010416667 mg/task	O		0,003020833 mg/task
Exposure per task / Acute Dose			0,000173611 mg/kg bw	O		0,000363956 mg/kg bw
Exposure per day / Chronic Dose			2,85388E-06 mg/kg bw/day	O		5,98284E-06 mg/kg bw/day
Dermal						
Contact area between product and skin			0,00336 m ²	S		
Quantity of contact (mg)			0,1 mg	S		
Dermal load (mg/cm ²)			0,00297619 mg/cm ²	O		
Absorption (mg)			0,1 mg	O		
Exposure per task / Acute Dose			0,001666667 mg/kg bw	O	no	mg/kg bw
Exposure per day / Chronic Dose			2,73973E-05 mg/kg bw/day	O	no	mg/kg bw/day
Oral						
Exposure / Dose		accidental		S	accidental	
Intake						
Exposure per task / Acute Dose			0,001840278 mg/kg bw	O		0,000363956 mg/kg bw
Exposure per day / Chronic Dose			3,02511E-05 mg/kg bw/day	O		5,98284E-06 mg/kg bw/day

Application		Task B: using the strip				
		Primary exposure	User		Secondary exposure	Bystander
Inhalation						
Concentration of potential exposure			0,066666667 mg/m ³	O		0,066666667 mg/m ³
Inhalation			0,000925926 mg/min	O		0,000268519 mg/min
Absorption per task			0,333333333 mg/task	O		0,096666667 mg/task
Exposure per task / Acute Dose			0,005555556 mg/kg bw	O		0,011646586 mg/kg bw
Exposure per day / Chronic Dose			0,000273973 mg/kg bw/day	S		0,001980525 mg/kg bw/day
Dermal						
Exposure per task / Acute Dose		no	mg/kg bw	S	no	mg/kg bw
Exposure per day / Chronic Dose		no	mg/kg bw/day	S	no	mg/kg bw/day
Oral						
Exposure / Dose		accidental		S	accidental	
Intake						
Exposure per task / Acute Dose			0,005555556 mg/kg bw	O		0,011646586 mg/kg bw
Exposure per day / Chronic Dose			0,000273973 mg/kg bw/day	S		0,001980525 mg/kg bw/day

Post application phase	Task C: not applicable
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Disposal	Task D: not applicable
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Scenario 38: insecticide: trap

Scenario description

Name of product	trap against ants	S	
Physical state product (liquid/solid)	solid	S	
Concentration of active substance in product	1 %	S	Frame formulation
User	Consumer	S	
Bystander	Children	S	
Temperature	20 °C	D	room temperature

Mixing & Loading

Number of tasks per year	Task A: positioning the trap	6 tasks/yr	S	every two month
Duration of task		1 min/task	S	
Quantity of product used per task		2,9 g/trap/task	S	Technical Inf. Blattanex
Quantity of active substance used per task		29 mg/task	S	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)			
Room volume		1 m ³	S	cloud around user
Model dermal exposure	Direct dermal contact			
Contact area between product (powder) and skin		0 m ²	S	no contact
Model oral exposure	accidental			

Application

Number of tasks per year	Task B: using the trap	365 tasks/yr	S	every day
Duration of task		480 min/task	S	time in room per day, 8 hours
Quantity of active substance used per task		29 mg/task	S	
Model inhalation exposure	Exposure to vapour / Instantaneous release (limited to vapour pressure)			
Room volume		15 m ³	S	Kitchen
Model dermal exposure	Direct dermal contact			
Contact area between product (powder) and skin		0 m ²	S	no direct contact
Contact area between product (powder) and skin children		0 m ²	S	no direct contact
Model oral exposure	accidental			

Post application phase

Task C: not applicable

Disposal

Task D: not applicable

Summary Results Exposure

	User	Consumer	Bystander	Children
Highest potential exposure acute (all amount used is absorbed)		0,483333333 mg/kg bw		3,493975904 mg/kg bw
Highest potential exposure chronic (all amount used is absorbed)		0,007945205 mg/kg bw/day		0,05743522 mg/kg bw/day
Highest potential concentration in air		29 mg/m ³		29 mg/m ³
Inhalation acute		0,166145833 mg/kg bw		0,348305723 mg/kg bw
Inhalation chronic		0,007945205 mg/kg bw/day		0,053112531 mg/kg bw/day
Dermal acute		0 mg/kg bw		0 mg/kg bw
Dermal chronic		0 mg/kg bw/day		0 mg/kg bw/day
Oral acute	accidental		accidental	
Oral chronic	accidental		accidental	
Intake acute		0,166145833 mg/kg bw		0,348305723 mg/kg bw
Daily intake chronic		0,007945205 mg/kg bw/day		0,053112531 mg/kg bw/day

Scenario 38: insecticide: trap**Results / Output**

Mixing & Loading					
Task A: positioning the trap					
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		29 mg/m ³	O		29 mg/m ³
Inhalation		0,402777778 mg/min	O		0,116805556 mg/min
Absorption per task		0,302083333 mg/task	O		0,087604167 mg/task
Exposure per task / Acute Dose		0,005034722 mg/kg bw	O		0,010554719 mg/kg bw
Exposure per day / Chronic Dose		8,27626E-05 mg/kg bw/day	O		0,000173502 mg/kg bw/day
Dermal					
Exposure per task / Acute Dose	no	mg/kg bw	S	no	mg/kg bw
Exposure per day / Chronic Dose	no	mg/kg bw/day	S	no	mg/kg bw/day
Oral					
Exposure / Dose	accidental		S	accidental	
Intake					
Exposure per task / Acute Dose		0,005034722 mg/kg bw	O		0,010554719 mg/kg bw
Exposure per day / Chronic Dose		8,27626E-05 mg/kg bw/day	O		0,000173502 mg/kg bw/day

Application					
Task B: using the trap					
	Primary exposure	User		Secondary exposure	Bystander
Inhalation					
Concentration of potential exposure		1,933333333 mg/m ³	O		1,933333333 mg/m ³
Inhalation		0,026851852 mg/min	O		0,007787037 mg/min
Absorption per task		9,666666667 mg/task	O		2,803333333 mg/task
Exposure per task / Acute Dose		0,161111111 mg/kg bw	O		0,337751004 mg/kg bw
Exposure per day / Chronic Dose		0,007945205 mg/kg bw/day	S		0,052939029 mg/kg bw/day
Dermal					
Exposure per task / Acute Dose	no	mg/kg bw	S	no	mg/kg bw
Exposure per day / Chronic Dose	no	mg/kg bw/day	S	no	mg/kg bw/day
Oral					
Exposure / Dose	accidental		S	accidental	
Intake					
Exposure per task / Acute Dose		0,161111111 mg/kg bw	O		0,337751004 mg/kg bw
Exposure per day / Chronic Dose		0,007945205 mg/kg bw/day	S		0,052939029 mg/kg bw/day

Post application phase	Task C: not applicable
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Disposal	Task D: not applicable
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