

Table OR2.1 - Installed capacity of each process in each location ($QT_{j,l,0}$) (adapted from Brazilian Chemical Industry Association (2012))

Process	AL ton/year	AM ton/year	BA ton/year	CE ton/year	ES ton/year	GO ton/year	MG ton/year	PA ton/year	PR ton/year	PE ton/year	RJ ton/year	RS ton/year	SC ton/year	SP ton/year	SE ton/year
Acetic acid via oxidation of n-butylenes	0	0	0	0	0	0	0	0	0	0	0	0	0	62000	0
Acetone via oxidation of propylene	0	0	0	0	0	0	0	0	0	0	0	0	0	119000	0
Acetylene via pyrolysis of ethane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Acrylic acid via carbonylation of acetylene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Acrylonitrile via ammoxidation of propylene	0	0	100000	0	0	0	0	0	0	0	0	0	0	0	0
Allyl chloride via chlorination of propylene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ammonia from natural gas	0	0	495000	0	0	0	10000	0	310500	0	5760	0	0	310500	456250
Benzene via disproportionation of toluene	0	0	323000	0	0	0	0	0	0	0	0	323000	0	353076	0
Bisphenol-A via phenol and acetone	0	0	0	0	0	0	0	0	0	0	0	0	0	28000	0
Butadiene via dehydrogenation of n-butylenes	0	0	155333	0	0	0	0	0	0	0	0	155333	0	155334	0
Butadiene via dehydrogenation of n-butane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1,4-Butanediol via propylene oxide	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
n-Butanol via propylene (conventional oxo)	0	0	150000	0	0	0	0	0	0	0	0	0	0	0	0
Butyraldehyde via oxonation of propylene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Caprolactam via phenol process	0	0	56000	0	0	0	0	0	0	0	0	0	0	0	0
Carbon monoxide from natural gas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorine from sodium chloride (electrolysis)	232000	0	647000	0	47600	0	0	0	0	28400	40000	20949	0	505000	0
Chlorobenzene via chlorination of benzene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumene from benzene and propylene	0	0	0	0	0	0	0	0	0	0	0	0	0	320000	0
Cyclohexane via hydrogenation of benzene	0	0	52000	0	0	0	0	0	0	0	0	0	0	52300	0
Dimethyl terephthalate via TPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dinitrotoluene via nitration of toluene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epichlorohydrin via allyl chloride	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ethanol via hydration of ethylene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ethyl acrylate via acrylic acid	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ethylbenzene via benzene alkylation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ethylene via ethane-propane (50:50) cracking	0	0	247000	0	0	0	0	0	0	0	247000	247000	0	247000	0
Ethylene via gas oil (high severity) cracking	0	0	247000	0	0	0	0	0	0	0	247000	247000	0	247000	0

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Ethylene via naphtha (high severity) cracking	0	0	494000	0	0	0	0	0	0	0	494000	494000	0	494000	0
Ethylene via pyrolysis of ethane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ethylene dichloride via chlorination of ethylene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ethylene glycol via ethylene oxidation	0	0	250000	0	0	0	0	0	0	0	0	0	0	250000	0
Ethylene oxide via oxidation of ethylene (air)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Formaldehyde via oxidation of methanol	0	0	95000	0	0	0	75000	0	403000	0	0	0	0	214600	0
Glycerine from allyl chloride	0	0	11700	0	0	0	0	0	0	0	0	5920	0	4817	0
Hydrogen from methane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydrogen cyanide via ammoxidation of methane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Isobutane via isomerization of n-butane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Isobutylene from steam cracked butenes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Isoprene from C5 fractions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maleic anhydride via oxidation of benzene	0	0	15000	0	0	0	0	0	0	0	0	0	0	15000	0
Melamine via BASF Process	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Methanol from methane	0	0	82500	0	0	0	0	0	7000	0	220000	0	0	0	0
Methyl ethyl ketone from n-butylenes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Methyl isobutyl ketone via acetone	0	0	0	0	0	0	0	0	0	0	0	0	0	20000	0
Methyl methacrylate via acetone cyanohydrin	0	0	100000	0	0	0	0	0	0	0	0	0	0	0	0
Nitric acid (95%) via ammonia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nitric acid (60%) via ammonia	0	0	36300	0	0	0	0	0	0	0	0	0	0	625360	0
Phenol via air oxidation of cumene	0	0	0	0	0	0	0	0	0	0	700	0	0	97500	0
Phenol via sulfonation of benzene	0	0	0	0	0	0	0	0	0	0	700	0	0	97500	0
Phosgene via carbon monoxide and chlorine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phthalic anhydride from naphthalene	0	0	35000	0	0	0	0	0	0	0	0	0	0	117000	0
Propylene, chemical grade from propylene, refinery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Propylene, polymer grade from propylene, refinery	0	0	708318	0	0	0	0	0	0	0	708318	556652	0	227114	0
Propylene glycol via hydration of propylene oxide	0	0	86000	0	0	0	0	0	0	0	0	0	0	0	0
Propylene oxide via oxidation of propylene	0	0	235000	0	0	0	0	0	0	0	0	0	0	0	0
Styrene via ethylbenzene (dehydrogenation)	0	0	140000	0	0	0	0	0	0	0	0	260000	0	140000	0
Sulfuric acid via double absorption process	0	0	887000	0	0	592000	2974969	12115	0	0	0	0	0	3746970	0

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Synthesis gas (H ₂ :CO = 1:1) from residual oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terephthalic acid, fiber grade via crude TPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terephthalic acid, crude grade via p-xylene	0	0	0	0	0	0	0	0	0	700000	0	0	0	250000	0
Toluene diamine via dinitrotoluene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Toluene diisocyanate via toluene diamine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urea via ammonia and carbon dioxide	0	0	495000	0	0	0	0	0	630000	0	0	0	0	0	657000
Vinyl acetate via ethane and acetic acid	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vinyl chloride from ethylene	271550	0	271550	0	0	0	0	0	0	0	0	0	0	300000	0
Vinylidene chloride via dehydrochlorination of 1,1,2-trichloroethane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
p-Xylene via isomerization of m-xylene (Aromax-Isolene)	0	0	203000	0	0	0	0	0	0	0	0	0	0	0	0
p-Xylene via isomerization of m-xylene (Parex-Isomar)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epoxy resin (liquid) from bisphenol-A and epichlorohydrin (batch process)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epoxy resin (liquid) from bisphenol-A and epichlorohydrin (continuous process)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Epoxy resin (solid) from bisphenol-A and epichlorohydrin (batch process)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Melamine-formaldehyde (molding compound) from melamine and formaldehyde	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nylon 6 (chips) from caprolactam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phenol-formaldehyde (Novolac molding powder)	0	0	0	5000	0	0	0	0	201500	0	8000	0	0	236200	0
Polyacrylate (pellets) by suspension polymerization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Polyisobutylenes from isobutylene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Polybutylene terephthalate from DMT and 1,4-butanediol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Polycarbonate by continuous solution phosgenation	0	0	15000	0	0	0	0	0	0	0	0	0	0	0	0
Polyether polyol (glycerine-based triol) from propylene oxide and glycerine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Polyethylene (high-density) via Phillips technology	0	0	349025	0	0	0	0	0	0	0	349025	349025	0	349025	0
Polyethylene (low density) from an autoclave reactor (compartmented)	0	0	409725	0	0	0	0	0	0	0	409725	409725	0	409725	0
Polyethylene (low density) from an autoclave reactor (backmixed)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Polyethylene glycol from ethylene oxide	0	0	0	0	0	0	0	0	0	0	0	0	0	116500	0
Polyethylene terephthalate (PET) from DMT and ethylene glycol	0	0	0	0	0	0	0	0	0	550000	0	0	0	0	0
Polyethylene terephthalate (PET) from TPA and ethylene glycol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Polymethyl methacrylate (pellets) by batch bulk polymerization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Polypropylene by solution process	0	0	491250	0	0	0	0	0	0	0	491250	491250	0	491250	0

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Polypropylene glycol from propylene oxide	0	0	0	0	0	0	0	0	0	0	0	0	0	10000	0
Polystyrene (crystal grade) by bulk polymerization	0	120000	0	0	0	0	0	0	0	0	0	155000	0	310000	0
Polystyrene (expandable beads) by suspension polymerization	0	0	0	0	0	0	0	0	0	0	0	0	18000	56500	0
Polyurethane flexible foam (slab stock) from polyether polyol and toluene diisocyanate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Polyvinyl alcohol from vinyl acetate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Polyvinyl butyral by condensation of polyvinyl alcohol with butyraldehyde	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Polyvinyl chloride (general purpose) by liquid-phase bulk process	355000	0	355000	0	0	0	0	0	0	0	0	0	0	300000	0
SAN by suspension polymerization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unsaturated polyester (general purpose) from propylene glycol and anhydrides (batch solvent process)	0	0	28100	0	0	0	0	0	4950	0	0	0	0	172550	0
Urea-formaldehyde (molding compound)	0	0	0	0	0	0	120000	0	408500	0	1200	0	0	177772	0
Vinyl acetate/ethylene copolymer (60% solid-latex) by emulsion polymerization	0	0	150000	0	0	0	0	0	0	0	0	150000	0	150000	0
Vinyl acetate/vinyl chloride copolymer by suspension polymerization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vinylidene chloride/vinyl chloride copolymer by suspension polymerization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Acrylic fibers from acrylonitrile and methyl methacrylate (continuous solution polymerization)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Butyl rubber from isobutylene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EPDM rubber by solution polymerization	0	0	0	0	0	0	0	0	0	0	0	42000	0	0	0
EPDM rubber by suspension polymerization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nitrile rubber by cold emulsion polymerization	0	0	0	0	0	0	0	0	0	0	34000	0	0	0	0
Polybutadiene by lithium-catalyzed polymerization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Polybutadiene by iodine-Ziegler-catalyzed polymerization	0	0	0	0	0	0	0	0	0	64000	0	0	0	0	0
Polychloroprene (neoprene) via butadiene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR by cold emulsion polymerization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBR by solution polymerization	0	0	0	0	0	0	0	0	0	72666	72666	72668	0	0	0
SBR (latex) by hot emulsion polymerization	0	0	0	0	0	0	0	0	0	0	2000	0	0	105700	0