

## Retention Measurements (individual data with means)

Retention of particulate TiO<sub>2</sub> in liver

| LIVER             |               |     |     |               |     |     |               |     |     |
|-------------------|---------------|-----|-----|---------------|-----|-----|---------------|-----|-----|
|                   | Mean          | ASD | RSD | Mean          | ASD | RSD | Mean          | ASD | RSD |
|                   | (µg/tissue)   |     | (%) | (µg/tissue)   |     | (%) | (µg/tissue)   |     | (%) |
|                   | Day 3         |     |     | Day 45        |     |     | Day 94        |     |     |
| Clean Air Control | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | <b>&lt; 5</b> |     |     | <b>&lt; 5</b> |     |     | <b>&lt; 5</b> |     |     |
|                   |               |     |     |               |     |     |               |     |     |
| NM-103, low       | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | <b>&lt; 5</b> |     |     | <b>&lt; 5</b> |     |     | <b>&lt; 5</b> |     |     |
|                   |               |     |     |               |     |     |               |     |     |
| NM-103, mid       |               |     |     |               |     |     |               |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | <b>&lt; 5</b> |     |     | <b>&lt; 5</b> |     |     | <b>&lt; 5</b> |     |     |
| NM-103, high      |               |     |     |               |     |     |               |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | 5.4           | 0.4 | 6.9 | < 5           |     |     | < 5           |     |     |
|                   | <b>&lt; 5</b> |     |     | <b>&lt; 5</b> |     |     | <b>&lt; 5</b> |     |     |

Individual data given in normal font  
Group mean data given in **bold font**

## Retention Measurements (individual data with means)

Retention of particulate TiO<sub>2</sub> in liver

| LIVER             |               |     |     |               |     |     |               |     |     |
|-------------------|---------------|-----|-----|---------------|-----|-----|---------------|-----|-----|
|                   | Mean          | ASD | RSD | Mean          | ASD | RSD | Mean          | ASD | RSD |
|                   | (µg/tissue)   |     | (%) | (µg/tissue)   |     | (%) | (µg/tissue)   |     | (%) |
|                   | Day 3         |     |     | Day 45        |     |     | Day 94        |     |     |
| Clean Air Control | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | <b>&lt; 5</b> |     |     | <b>&lt; 5</b> |     |     | <b>&lt; 5</b> |     |     |
|                   |               |     |     |               |     |     |               |     |     |
| NM-104, low       | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | <b>&lt; 5</b> |     |     | <b>&lt; 5</b> |     |     | <b>&lt; 5</b> |     |     |
|                   |               |     |     |               |     |     |               |     |     |
| NM-104, mid       | < 5           |     |     | < 5           |     |     | 13.6          | 1.3 | 9.8 |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | 14.2          | 1.0 | 7.3 |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | <b>&lt; 5</b> |     |     | <b>&lt; 5</b> |     |     |               |     |     |
|                   |               |     |     |               |     |     |               |     |     |
| NM-104, high      | < 5           |     |     | < 5           |     |     | 206           | 2   | 0.9 |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | < 5           |     |     |
|                   | < 5           |     |     | < 5           |     |     | 3.6           | 0.2 | 6.5 |
|                   | <b>&lt; 5</b> |     |     | <b>&lt; 5</b> |     |     |               |     |     |

Individual data given in normal font  
Group mean data given in **bold font**

## Retention Measurements (individual data with means)

Retention of particulate TiO<sub>2</sub> in liver

| LIVER             |               |     |     |               |     |     |               |         |         |
|-------------------|---------------|-----|-----|---------------|-----|-----|---------------|---------|---------|
|                   | Mean          | ASD | RSD | Mean          | ASD | RSD | Mean          | ASD     | RSD     |
|                   | (µg/tissue)   |     | (%) | (µg/tissue)   |     | (%) | (µg/tissue)   |         | (%)     |
|                   | Day 3         |     |     | Day 45        |     |     | Day 94        |         |         |
| Clean Air Control | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | <b>&lt; 5</b> |     |     | <b>&lt; 5</b> |     |     | <b>&lt; 5</b> |         |         |
|                   |               |     |     |               |     |     |               |         |         |
| NM-105, low       | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | <b>&lt; 5</b> |     |     | <b>&lt; 5</b> |     |     | <b>&lt; 5</b> |         |         |
|                   |               |     |     |               |     |     |               |         |         |
| NM-105, mid       | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | <b>&lt; 5</b> |     |     | <b>&lt; 5</b> |     |     | <b>&lt; 5</b> |         |         |
|                   |               |     |     |               |     |     |               |         |         |
| NM-105, high      | < 5           |     |     | < 5           |     |     | 66.5/3.4      | 0.4/0.1 | 0.7/3.0 |
|                   | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | < 5           |     |     | 16.3          | 0.5 | 3.1 | < 5           |         |         |
|                   | < 5           |     |     | < 5           |     |     | < 5           |         |         |
|                   | <b>&lt; 5</b> |     |     |               |     |     |               |         |         |

Individual data given in normal font  
Group mean data given in **bold font**

## Retention Measurements (individual data with means)

Retention of particulate TiO<sub>2</sub> in brain

| BRAIN             |                 |     |     |                 |     |     |                 |     |     |
|-------------------|-----------------|-----|-----|-----------------|-----|-----|-----------------|-----|-----|
|                   | Mean            | ASD | RSD | Mean            | ASD | RSD | Mean            | ASD | RSD |
|                   | (µg/tissue)     |     | (%) | (µg/tissue)     |     | (%) | (µg/tissue)     |     | (%) |
|                   | Day 3           |     |     | Day 45          |     |     | Day 94          |     |     |
| Clean Air Control | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     |
|                   |                 |     |     |                 |     |     |                 |     |     |
| NM-103, low       | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     |
|                   |                 |     |     |                 |     |     |                 |     |     |
| NM-103, mid       |                 |     |     |                 |     |     |                 |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     |
| NM-103, high      |                 |     |     |                 |     |     |                 |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     |

Individual data given in normal font  
Group mean data given in **bold font**

## Retention Measurements (individual data with means)

Retention of particulate TiO<sub>2</sub> in brain

| BRAIN             |                 |     |     |                 |     |     |                 |     |     |
|-------------------|-----------------|-----|-----|-----------------|-----|-----|-----------------|-----|-----|
|                   | Mean            | ASD | RSD | Mean            | ASD | RSD | Mean            | ASD | RSD |
|                   | (µg/tissue)     |     | (%) | (µg/tissue)     |     | (%) | (µg/tissue)     |     | (%) |
|                   | Day 3           |     |     | Day 45          |     |     | Day 94          |     |     |
| Clean Air Control | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     |
|                   |                 |     |     |                 |     |     |                 |     |     |
| NM-104, low       | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | 3.3             | 0.3 | 8.9 | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     |
|                   |                 |     |     |                 |     |     |                 |     |     |
| NM-104, mid       | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     |
|                   |                 |     |     |                 |     |     |                 |     |     |
| NM-104, high      | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     |
|                   |                 |     |     |                 |     |     |                 |     |     |

Individual data given in normal font  
Group mean data given in **bold font**

## Retention Measurements (individual data with means)

Retention of particulate TiO<sub>2</sub> in brain

| BRAIN             |                 |     |     |                 |     |     |                 |     |     |
|-------------------|-----------------|-----|-----|-----------------|-----|-----|-----------------|-----|-----|
|                   | Mean            | ASD | RSD | Mean            | ASD | RSD | Mean            | ASD | RSD |
|                   | (µg/tissue)     |     | (%) | (µg/tissue)     |     | (%) | (µg/tissue)     |     | (%) |
|                   | Day 3           |     |     | Day 45          |     |     | Day 94          |     |     |
| Clean Air Control | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     |
|                   |                 |     |     |                 |     |     |                 |     |     |
| NM-105, low       | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     |
|                   |                 |     |     |                 |     |     |                 |     |     |
| NM-105, mid       | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     |
|                   |                 |     |     |                 |     |     |                 |     |     |
| NM-105, high      | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | < 2.5           |     |     | < 2.5           |     |     | < 2.5           |     |     |
|                   | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     | <b>&lt; 2.5</b> |     |     |
|                   |                 |     |     |                 |     |     |                 |     |     |

Individual data given in normal font  
Group mean data given in **bold font**