









## 9. Physical and chemical properties

|                                       |                         |
|---------------------------------------|-------------------------|
| Vapor pressure                        | : Not applicable.       |
| Vapor density                         | : Not available.        |
| Volatility                            | : Not available.        |
| Odor threshold                        | : Not available.        |
| Evaporation rate                      | : Not available.        |
| Viscosity                             | : Not available.        |
| Ionicity (in water)                   | : Not available.        |
| Dispersibility properties             | : Not available.        |
| Solubility                            | : Not soluble in water. |
| Partition coefficient (LogKow)        | :aaav aU U U* u         |
| Physical/chemical properties comments | : Not available.        |

## 10. Stability and reactivity

|                                    |  |
|------------------------------------|--|
| Chemical stability                 | : The product is stable.   |
| Conditions to avoid                | : No specific data.  |
| Incompatible materials             | : Inert material.  |
| Hazardous decomposition products   | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur.                      |

## 11. Toxicological information

### Acute toxicity

There is no data available.

### Chronic toxicity

There is no data available.

### Irritation/Corrosion

| Product/ingredient name | Result               | Species | Score | Exposure                     | Observation |
|-------------------------|----------------------|---------|-------|------------------------------|-------------|
| Titanium Dioxide        | Skin - Mild irritant | Human   | -     | 72 hours 300 µg Intermittent | -           |

### Sensitizer

**Skin** : There is no data available.

**Respiratory** : There is no data available.

### Carcinogenicity

#### Classification

| Product/ingredient name | ACGIH | IARC | EPA | NIOSH | NTP                             | OSHA |
|-------------------------|-------|------|-----|-------|---------------------------------|------|
| Silica, vitreous        | -     | 3    | -   | -     | -                               | -    |
| Quartz                  | A2    | 1    | -   | +     | Known to be a human carcinogen. | -    |
| Cristobalite            | A2    | 1    | -   | +     | Known to be a human carcinogen. | -    |
| Titanium Dioxide        | A4    | 2B   | -   | +     | -                               | -    |

## 11. Toxicological information

### Mutagenicity

There is no data available.

### Teratogenicity

There is no data available.

### Reproductive toxicity

There is no data available.

**Synergistic products** : Not available.

## 12. Ecological information

**Ecotoxicity** : No known significant effects or critical hazards.

### Aquatic ecotoxicity

| Product/ingredient name | Result                              | Species   | Exposure |
|-------------------------|-------------------------------------|---|----------|
| Titanium Dioxide        | Acute EC50 5.83 mg/L Fresh water    | Algae - Pseudokirchneriella subcapitata - Exponential growth phase  | 72 hours |
|                         | Acute LC50 3 mg/L Fresh water       | Crustaceans - Ceriodaphnia dubia - Neonate                          | 48 hours |
|                         | Acute LC50 5.5 ppm Fresh water      | Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling) | 48 hours |
|                         | Acute LC50 1000 mg/L Fresh water    | Fish - Pimephales promelas  | 96 hours |
|                         | Chronic NOEC 0.984 mg/L Fresh water | Algae - Pseudokirchneriella subcapitata - Exponential growth phase  | 72 hours |

### Persistence/degradability

There is no data available.

**Partition coefficient: n-octanol/water** : Not available.

**Bioconcentration factor** : There is no data available.

**Mobility** : There is no data available.

**Toxicity of the products of biodegradation** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## 13. Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**Waste stream** : Not available.

**RCRA classification** : Not available.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14. Transport information

| Regulatory information    | UN number      | Proper shipping name | Classes | PG* | Label | Additional information |
|---------------------------|----------------|----------------------|---------|-----|-------|------------------------|
| <b>TDG Classification</b> | Not regulated. | -                    | -       | -   |       | -                      |
| <b>IMDG Class</b>         | Not regulated. | -                    | -       | -   |       | -                      |
| <b>IATA-DGR Class</b>     | Not regulated. | -                    | -       | -   |       | -                      |

PG\* : Packing group

Exemption to the above classification may apply.

**AERG** : Not applicable.

## 15. Regulatory information

**WHMIS (Canada)** : Not controlled under WHMIS (Canada).

**Canadian lists**

**Canadian NPRI** : None of the components are listed.

**CEPA Toxic substances** : None of the components are listed.

**Canada inventory** : All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

## 16. Other information

**Label requirements** : CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

**History**

**Date of issue** : 04/15/2013

**Version** : 1

**Revised Section(s)** : Not applicable.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.