

## Safety Data Sheet

## Firestone Building Products Company

**Section 1: Identification of the Substance/Mixture and of the Company/Undertaking****1.1 Product identifier****Product Name** • AcryliTop™ PC-100 Coating White**1.2 Relevant identified uses of the substance or mixture and uses advised against****Relevant identified use(s)** • Construction**1.3 Details of the supplier of the safety data sheet****Manufacturer** • Firestone Building Products Company200 4th Avenue S  
Nashville, TN 37201-2208  
United States

firestonemsds@bfdp.com

**Telephone (General)** • 800-428-4442**1.4 Emergency telephone number****Manufacturer** • (800) 424-9300 - CHEMTREC**Manufacturer** • (703) 527-3887 - CHEMTREC - International**Section 2: Hazards Identification****EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

**2.1 Classification of the substance or mixture****CLP** • Hazardous to the aquatic environment Chronic 2 - H411**DSD/DPD** • Dangerous to the Environment (N)  
R51, R53**2.2 Label Elements****CLP****Hazard statements** • H411 - Toxic to aquatic life with long lasting effects**Precautionary statements****Prevention** • P273 - Avoid release to the environment.**Response** • P391 - Collect spillage.**Storage/Disposal** • P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.**DSD/DPD**



- Risk phrases** • R51 - Toxic to aquatic organisms.  
R53 - May cause long-term adverse effects in the aquatic environment.

- Safety phrases** • S57 - Use appropriate containment to avoid environmental contamination.

## 2.3 Other Hazards

- CLP** • According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- DSD/DPD** • According to European Directive 1999/45/EC this material is considered dangerous.

## United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

## 2.1 Classification of the substance or mixture

- OSHA HCS 2012** • Eye Irritation 2  
Specific Target Organ Toxicity Single Exposure 1  
Specific Target Organ Toxicity Repeated Exposure 1

## 2.2 Label elements

OSHA HCS 2012

**DANGER**



- Hazard statements** • Causes serious eye irritation  
Causes damage to organs - Kidneys via Ingestion/Oral  
Causes damage to organs - Kidneys through prolonged or repeated exposure via Ingestion/Oral

## Precautionary statements

- Prevention** • Do not breathe mist/vapours/spray.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Wear eye/face protection , .
- Response** • IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.  
Specific treatment, see supplemental first aid information.  
IF exposed: Call POISON CENTER or doctor/physician.  
Get medical advice/attention if you feel unwell.
- Storage/Disposal** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## 2.3 Other hazards

- OSHA HCS 2012** • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

## Canada

According to: WHMIS

## 2.1 Classification of the substance or mixture

- WHMIS** • Other Toxic Effects - D2A

## Other Toxic Effects - D2B

**2.2 Label elements****WHMIS****WHMIS**

- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

**2.3 Other hazards****WHMIS**

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

**Section 3 - Composition/Information on Ingredients****3.1 Substances**

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

**3.2 Mixtures**

| Composition                   |   |            |  |   |          |
|-------------------------------|---|------------|--|---|----------|
| Chemical Name                 | Identifiers   | %          | LD50/LC50  | Classifications According to Regulation/Directive   | Comments |
| Aluminum hydroxide (Al(OH) 3) | CAS:21645-51-2<br>EC Number:244-492-7                         | 20% TO 40% | NDA  | EU DSD/DPD: Not Classified<br>EU CLP: Not Classified<br>OSHA HCS 2012: Not Classified   | NDA      |
| Acrylic polymer blend         | NDA   | 15% TO 30% | NDA  | EU DSD/DPD: Not Classified<br>EU CLP: Not Classified<br>OSHA HCS 2012: Not Classified   | NDA      |
| Titanium dioxide              | CAS:13463-67-7<br>EC Number:236-675-5                         | 5% TO 10%  | NDA  | EU DSD/DPD: Self Classified: Mut. Cat. 3 Xn R68 Carc. Cat. 3 Xn R40<br>EU CLP: Self Classified: Muta. 2, H341; Carc. 2, H351; STOT RE 2, H373<br>OSHA HCS 2012: Muta. 2; Carc. 2; STOT RE 2 (Lungs) | NDA      |
| Zinc oxide                    | CAS:1314-13-2<br>EC Number:215-222-5<br>EU Index:030-013-00-7 | 1% TO 5%   | NDA  | EU DSD/DPD: Annex VI, Table 3.2: N R50-53<br>EU CLP: Annex VI, Table 3.1: Aquatic Acute 1, H400; Aquatic Chronic 1, H410<br>OSHA HCS 2012: Eye Irrit. 2   | NDA      |
| Ethylene glycol               | CAS:107-21-1<br>EC Number:203-473-3<br>EU Index:603-027-00-1  | 1% TO 5%   | Ingestion/Oral-Rat<br>LD50 • 4700 mg/kg<br>Skin-Rabbit LD50 • 9530 µL/kg | EU DSD/DPD: Annex VI, Table 3.2: Xn R22<br>EU CLP: Annex VI, Table 3.1: Acute Tox. 4*, H302<br>OSHA HCS 2012: Eye Irrit. 2; STOT SE 1 (Kidney, Oral); STOT RE 1 (Kidney, Oral)                      | NDA      |

**Section 4 - First Aid Measures****4.1 Description of first aid measures****Inhalation**

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial

respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

- Skin**
  - In case of contact with substance, immediately flush skin with running water for at least 20 minutes. If irritation develops and persists, get medical attention.
- Eye**
  - In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
- Ingestion**
  - Get medical attention immediately. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

## 4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

## 4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
  - All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

# Section 5 - Firefighting Measures

## 5.1 Extinguishing media

**Suitable Extinguishing Media** • Carbon dioxide, water, water fog, dry chemical, chemical foam.

**Unsuitable Extinguishing Media** • No data available

## 5.2 Special hazards arising from the substance or mixture

**Unusual Fire and Explosion Hazards** • Product is not considered flammable or combustible.

**Hazardous Combustion Products** • Compounds of carbon, hydrogen, oxygen, aluminium and zinc, including carbon monoxide.

## 5.3 Advice for firefighters

- Keep containers cool with water spray to prevent container rupture due to steam buildup; floor will become slippery if material is released.  
Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.  
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.  
Wear positive pressure self-contained breathing apparatus (SCBA).

# Section 6 - Accidental Release Measures

## 6.1 Personal precautions, protective equipment and emergency procedures

**Personal Precautions** • Do not walk through spilled material. Use appropriate Personal Protective Equipment (PPE) Avoid breathing mist, vapours, spray. Avoid contact with skin and eyes.

**Emergency Procedures** • Keep unauthorized personnel away. Stay upwind. Stop leak if you can do it without risk.

## 6.2 Environmental precautions

- Avoid release to the environment.

## 6.3 Methods and material for containment and cleaning up

**Containment/Clean-up Measures** • Stop leak if you can do it without risk.  
Contain and/or absorb spill with inert material (e.g. sand, vermiculite).

## 6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal

## Considerations.

## Section 7 - Handling and Storage

### 7.1 Precautions for safe handling

#### Handling

- Use only with adequate ventilation. Wear appropriate personal protective equipment. Avoid breathing mist, vapours, spray. Avoid contact with skin and eyes. Do not ingest. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage

- Keep container tightly closed. Store in a cool/low-temperature, well-ventilated place away from heat and ignition sources.

### 7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

## Section 8 - Exposure Controls/Personal Protection

### 8.1 Control parameters

| Exposure Limits/Guidelines                |          |   |  |   |                            |  |
|---|----------|---|--|---|----------------------------|--|
|   | Result   | ACGIH   | Australia  | Belgium                                 | Canada Alberta             | Canada British Columbia  |
| Zinc oxide<br>(1314-13-2)                 | STELs    | 10 mg/m3 STEL (respirable fraction)   | 10 mg/m3 STEL (fume)   | 10 mg/m3 STEL (fume)                    | 10 mg/m3 STEL (respirable) | 10 mg/m3 STEL (respirable)   |
|   | TWAs     | 2 mg/m3 TWA (respirable fraction)   | 10 mg/m3 TWA (containing no asbestos and <1% crystalline silica, inhalable dust); 5 mg/m3 TWA (fume) | 10 mg/m3 TWA (dust); 5 mg/m3 TWA (fume) | 2 mg/m3 TWA (respirable)   | 2 mg/m3 TWA (respirable)   |
| Ethylene glycol<br>(107-21-1)             | STELs    | Not established   | 40 ppm STEL (vapour); 104 mg/m3 STEL (vapour)  | Not established                         | Not established            | 20 mg/m3 STEL (particulate)  |
|   | TWAs     | Not established   | 10 mg/m3 TWA (particulate); 20 ppm TWA (vapour); 52 mg/m3 TWA (vapour)                               | Not established                         | Not established            | 10 mg/m3 TWA (particulate)   |
|   | Ceilings | 100 mg/m3 Ceiling (aerosol only)  | Not established  | Not established                         | 100 mg/m3 Ceiling          | 100 mg/m3 Ceiling (aerosol); 50 ppm Ceiling (vapour)                 |
| Titanium dioxide<br>(13463-67-7)          | TWAs     | 10 mg/m3 TWA  | 10 mg/m3 TWA (containing no asbestos and <1% crystalline silica, inhalable dust)                     | 10 mg/m3 TWA                            | 10 mg/m3 TWA               | 10 mg/m3 TWA (total dust); 3 mg/m3 TWA (respirable fraction)         |
| Aluminum hydroxide (Al(OH) <sub>3</sub> ) | TWAs     | 1 mg/m3 TWA (respirable fraction)<br><i>as Aluminum insoluble compounds</i> | Not established  | Not established                         | Not established            | 1.0 mg/m3 TWA (respirable)<br><i>as Aluminum insoluble compounds</i> |
| Exposure Limits/Guidelines (Con't.)       |          |   |  |   |                            |  |
|   | Result   | Canada Manitoba   | Canada New Brunswick   | Canada Northwest Territories            | Canada Nova Scotia         | Canada Nunavut   |

|                                     |          |  |   |  |  |  |
|-------------------------------------|----------|--|---|--|--|--|
| Zinc oxide<br>(1314-13-2)           | STELs    | 10 mg/m3 STEL<br>(respirable fraction)   | 10 mg/m3 STEL<br>(fume)   | 10 mg/m3 STEL<br>(fume)  | 10 mg/m3 STEL<br>(respirable fraction)   | 10 mg/m3 STEL<br>(fume)  |
|                                     | TWAs     | 2 mg/m3 TWA<br>(respirable fraction)   | 10 mg/m3 TWA<br>(particulate matter<br>containing no<br>Asbestos and <1%<br>Crystalline silica,<br>dust); 5 mg/m3 TWA<br>(fume) | 5 mg/m3 TWA (fume);<br>5 mg/m3 TWA (dust,<br>respirable mass); 10<br>mg/m3 TWA (total<br>mass, dust) | 2 mg/m3 TWA<br>(respirable fraction)   | 5 mg/m3 TWA (fume);<br>5 mg/m3 TWA (dust,<br>respirable mass); 10<br>mg/m3 TWA (total<br>mass, dust) |
| Ethylene glycol<br>(107-21-1)       | Ceilings | 100 mg/m3 Ceiling<br>(aerosol only)  | 100 mg/m3 Ceiling<br>(aerosol)  | 50 ppm Ceiling<br>(vapour); 127 mg/m3<br>Ceiling (vapour)  | 100 mg/m3 Ceiling<br>(aerosol only)  | 50 ppm Ceiling<br>(vapour); 127 mg/m3<br>Ceiling (vapour)  |
|                                     | STELs    | Not established  | Not established   | 20 mg/m3 STEL<br>(particulate)   | Not established  | 20 mg/m3 STEL<br>(particulate)   |
|                                     | TWAs     | Not established  | Not established   | 10 ppm TWA<br>(particulate)  | Not established  | 10 mg/m3 TWA<br>(particulate)  |
| Titanium dioxide<br>(13463-67-7)    | TWAs     | 10 mg/m3 TWA   | 10 mg/m3 TWA  | 5 mg/m3 TWA<br>(respirable mass); 10<br>mg/m3 TWA (total<br>mass)                                    | 10 mg/m3 TWA   | 5 mg/m3 TWA<br>(respirable mass); 10<br>mg/m3 TWA (total<br>mass)                                    |
| Aluminum<br>hydroxide (Al(OH)<br>3) | TWAs     | 1 mg/m3 TWA<br>(respirable fraction)<br><br><i>as Aluminum<br/>insoluble<br/>compounds</i> | Not established   | Not established  | 1 mg/m3 TWA<br>(respirable fraction)<br><br><i>as Aluminum<br/>insoluble<br/>compounds</i> | Not established  |

## Exposure Limits/Guidelines (Con't.)

|                               | Result   | Canada Ontario                      | Canada Quebec   | Canada<br>Saskatchewan                                 | Canada Yukon  | China                         |
|-------------------------------|----------|-------------------------------------|---|--|---|-------------------------------|
| Zinc oxide<br>(1314-13-2)     | STELs    | 10 mg/m3 STEL<br>(respirable)       | 10 mg/m3 STEV<br>(fume)   | Not established  | 10 mg/m3 STEL<br>(fume); 20 mg/m3<br>STEL (dust)  | 5 mg/m3 STEL                  |
|                               | TWAs     | 2 mg/m3 TWA<br>(respirable)         | 10 mg/m3 TWAEV<br>(containing no<br>Asbestos and <1%<br>Crystalline silica, total<br>dust); 5 mg/m3<br>TWAEV (fume) | 2 mg/m3 TWA (dust<br>and fume, respirable<br>fraction) | 5 mg/m3 TWA (fume);<br>30 mppcf TWA<br>(dust); 10 mg/m3<br>TWA (dust)   | 3 mg/m3 TWA                   |
| Ethylene glycol<br>(107-21-1) | STELs    | Not established                     | Not established   | Not established  | 10 ppm STEL<br>(particulate); 20<br>mg/m3 STEL<br>(particulate); 125 ppm<br>STEL (vapour); 325<br>mg/m3 STEL (vapour) | 40 mg/m3 STEL                 |
|                               | TWAs     | Not established                     | Not established   | Not established  | 10 mg/m3 TWA<br>(particulate); 100 ppm<br>TWA (vapour); 250<br>mg/m3 TWA (vapour)                                     | 20 mg/m3 TWA                  |
|                               | Ceilings | 100 mg/m3 Ceiling<br>(aerosol only) | 50 ppm Ceiling (mist<br>and vapour); 127<br>mg/m3 Ceiling (mist<br>and vapour)                                      | Not established  | Not established   | Not established               |
|                               | STELs    | Not established                     | Not established   | Not established  | 20 mg/m3 STEL (as<br>Ti)  | 16 mg/m3 STEL (total<br>dust) |

|  |               |  |  |   |  |                             |
|--|---------------|--|--|---|--|-----------------------------|
| Titanium dioxide (13463-67-7)                          | TWAs          | 10 mg/m3 TWA   | 10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust) | 10 mg/m3 TWA  | 30 mppcf TWA (as Ti); 10 mg/m3 TWA (as Ti)   | 8 mg/m3 TWA (total dust)    |
| Aluminum hydroxide (Al(OH) <sub>3</sub> )              | TWAs          | 1 mg/m3 TWA (respirable)<br><i>as Aluminum insoluble compounds</i> | Not established  | Not established   | Not established  | Not established             |
| <b>Exposure Limits/Guidelines (Con't.)</b>             |               |  |  |   |  |                             |
|  | <b>Result</b> | <b>Cyprus</b>  | <b>Denmark</b>   | <b>Germany DFG</b>  | <b>Germany TRGS</b>  | <b>NIOSH</b>                |
| Zinc oxide (1314-13-2)                                 | TWAs          | Not established  | 4 mg/m3 TWA (including vapour, as Zn)  | Not established   | Not established  | 5 mg/m3 TWA (dust and fume) |
|  | Ceilings      | Not established  | Not established  | 1 mg/m3 Peak (respirable fraction, fume)  | Not established  | 15 mg/m3 Ceiling (dust)     |
|  | STELs         | Not established  | Not established  | Not established   | Not established  | 10 mg/m3 STEL (fume)        |
|  | MAKs          | Not established  | Not established  | 1 mg/m3 TWA MAK (fume, respirable fraction)   | Not established  | Not established             |
| Ethylene glycol (107-21-1)                             | TWAs          | 20 ppm TWA; 52 mg/m3 TWA   | 10 ppm TWA; 26 mg/m3 TWA; 10 mg/m3 TWA (vapor)                                 | Not established   | 10 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2); 26 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2) | Not established             |
|  | STELs         | 40 ppm STEL; 104 mg/m3 STEL  | Not established  | Not established   | Not established  | Not established             |
|  | Ceilings      | Not established  | Not established  | 20 ppm Peak; 52 mg/m3 Peak  | Not established  | Not established             |
|  | MAKs          | Not established  | Not established  | 10 ppm TWA MAK; 26 mg/m3 TWA MAK  | Not established  | Not established             |
| Titanium dioxide (13463-67-7)                          | TWAs          | Not established  | 6 mg/m3 TWA (as Ti)  | Not established   | Not established  | Not established             |
| Aluminum hydroxide (Al(OH) <sub>3</sub> ) (21645-51-2) | MAKs          | Not established  | Not established  | 4 mg/m3 TWA MAK (dust, inhalable fraction); 1.5 mg/m3 TWA MAK (dust, respirable fraction) | Not established  | Not established             |
| <b>Exposure Limits/Guidelines (Con't.)</b>             |               |  |  |   |  |                             |
|  |               |  | <b>Result</b>  | <b>OSHA</b>   |  |                             |

|                                  |      |  |
|----------------------------------|------|--|
| Zinc oxide<br>(1314-13-2)        | TWAs | 5 mg/m3 TWA (fume); 15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction) |
| Titanium dioxide<br>(13463-67-7) | TWAs | 15 mg/m3 TWA (total dust)  |

## Exposure Control Notations

### Cyprus

- Ethylene glycol (107-21-1): **Skin:** (Skin-potential for cutaneous absorption)

### Germany TRGS

- Ethylene glycol (107-21-1): **Skin:** (skin notation)

### Germany DFG

- Aluminum hydroxide (Al(OH)<sub>3</sub>) (21645-51-2): **Pregnancy:** (classification not yet possible (respirable, inhalable, dust))
- Ethylene glycol (107-21-1): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to) | **Skin:** (skin notation)
- Titanium dioxide (13463-67-7): **Carcinogens:** (Category 3A (could be carcinogenic for man, inhalable fraction with the exception of ultra small particles))

## 8.2 Exposure controls

### Engineering Measures/Controls

- This material is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

### Personal Protective Equipment

#### Respiratory

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

#### Eye/Face

- Wear protective eyewear (goggles, face shield, or safety glasses).

#### Skin/Body

- Wear appropriate gloves.

### Environmental Exposure Controls

- In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

### Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

STEL = Short Term Exposure Limits are based on 15-minute exposures

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

## Section 9 - Physical and Chemical Properties

### 9.1 Information on Basic Physical and Chemical Properties

| Material Description              |                |                              |  |
|-----------------------------------|----------------|------------------------------|--|
| Physical Form                     | Liquid         | Appearance/Description       | Creamy, white liquid with a paint-like odor. |
| Color                             | White          | Odor                         | Paint-like                                   |
| Odor Threshold                    | Data lacking   |                              |  |
| General Properties                |                |                              |  |
| Boiling Point                     | 212 °F(100 °C) | Melting Point/Freezing Point | Data lacking                                 |
| Decomposition Temperature         | Data lacking   | pH                           | 8 to 9                                       |
| Specific Gravity/Relative Density | = 1.13 Water=1 | Water Solubility             | Dispersible                                  |
| Viscosity                         | Data lacking   | Explosive Properties         | Data lacking                                 |
| Oxidizing Properties:             | Data lacking   |                              |  |
| Volatility                        |                |                              |  |



|                                     |                    |                  |              |
|-------------------------------------|--------------------|------------------|--------------|
| Vapor Pressure                      | 760 mmHg (torr)    | Vapor Density    | > 1 Air=1    |
| Evaporation Rate                    | Data lacking       | Volatiles (Vol.) | Data lacking |
| <b>Flammability</b>                 |                    |                  |              |
| Flash Point                         | > 212 °F(> 100 °C) | UEL              | Data lacking |
| LEL                                 | Data lacking       | Autoignition     | Data lacking |
| Flammability (solid, gas)           | Not relevant.      |                  |              |
| <b>Environmental</b>                |                    |                  |              |
| Octanol/Water Partition coefficient | Data lacking       |                  |              |

## 9.2 Other Information

- No additional physical and chemical parameters noted.

## Section 10: Stability and Reactivity

### 10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

- Stable

### 10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

### 10.4 Conditions to avoid

- Extreme temperatures.

### 10.5 Incompatible materials

- Strong acids. Strong oxidizing substances.

### 10.6 Hazardous decomposition products

- Decomposition will not occur if handled and stored properly. In case of a fire, oxides of carbon, hydrocarbons, aluminum, and zinc fumes and smoke may be produced.

## Section 11 - Toxicological Information

### 11.1 Information on toxicological effects

| Components   |            |   |
|--|------------|---|
| Aluminum hydroxide (Al(OH) <sub>3</sub> ) (20% TO 40%) | 21645-51-2 | <b>Multi-dose Toxicity:</b> Ingestion/Oral-Woman TDLo • 73912.5 mg/kg 26 Week(s)-Intermittent; <i>Blood:Changes in serum composition (e.g., TP, bilirubin cholesterol); Musculoskeletal:Osteoporosis; Nutritional and Gross Metabolic:Changes in Chemistry or Temperature:P; Reproductive:</i> Ingestion/Oral-Woman TDLo • 84 g/kg (1-40W preg); <i>Reproductive Effects:Effects on Newborn:Physical</i>  |
|  |            | <b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 4700 mg/kg; Ingestion/Oral-Man TDLo • 15 g/kg; <i>Peripheral Nerve and Sensation:Sensory change involving peripheral nerve; Gastrointestinal:Ulceration or bleeding from small intestine; Kidney, Ureter, and Bladder:Renal function tests depressed;</i> Ingestion/Oral-Man TDLo • 1195 mg/kg; <i>Peripheral Nerve and Sensation:Sensory change involving peripheral nerve; Kidney, Ureter, and Bladder:Renal function tests depressed;</i> Ingestion/Oral-Man TDLo • 24 g/kg; <i>Brain and Coverings:Other degenerative changes; Behavioral:Ataxia; Behavioral:Coma;</i> Ingestion/Oral-Rat TDLo • 120 mg/kg; <i>Blood:Changes in bone marrow not included above;</i> Inhalation-Human TCLo • 22 mg/m <sup>3</sup> ; <i>Kidney, Ureter, and Bladder:Proteinuria;</i> Inhalation-Rat TCLo • 0.004 g/m <sup>3</sup> 2 Hour(s); <i>Behavioral:Muscle contraction or spasticity; Lungs, Thorax, or Respiration:Respiratory stimulation; Gastrointestinal:Hypermotility, diarrhea;</i> Skin-Rabbit LD50 • 9530 µL/kg; <i>Irritation:</i> Eye-Rabbit • 100 mg 1 Hour(s) • Mild irritation; Skin-Rabbit • 555 mg-Open • Mild irritation; <b>Multi-dose Toxicity:</b> Inhalation-Guinea Pig TCLo • 0.003 g/m <sup>3</sup> 45 Day(s)-Intermittent; <i>Behavioral:Excitement; Liver:Liver function tests impaired;</i> Inhalation-Rat TCLo • 1 mg/m <sup>3</sup> 32 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration:Other</i> |

|                              |            |   |
|------------------------------|------------|---|
| Ethylene glycol (1% TO 5%)   | 107-21-1   | <p><b>changes; Liver:</b>Liver function tests impaired; <i>Kidney, Ureter, and Bladder:</i><b>Changes in tubules (including acute renal failure, acute tubular necrosis)</b>; Inhalation-Rat TCLo • 0.003 g/m<sup>3</sup> 228 Day(s)-Intermittent; <i>Brain and Coverings:</i><b>Other degenerative changes; Vascular:Structural changes in vessels; Lungs, Thorax, or Respiration:Emphysema</b>; Inhalation-Rat TCLo • 0.02 g/m<sup>3</sup> 153 Day(s)-Intermittent; <i>Lungs, Thorax, or Respiration:Emphysema; Kidney, Ureter, and Bladder:</i><b>Changes in tubules (including acute renal failure, acute tubular necrosis)</b>; <i>Blood:</i><b>Changes in spleen</b>;</p> <p><b>Mutagen:</b> Cytogenetic analysis • Ingestion/Oral-Rat • 1200 mg/kg;</p> <p><b>Reproductive:</b> Ingestion/Oral-Mouse TDLo • 850 mg/kg (multigenerations); <i>Reproductive Effects:Specific Developmental Abnormalities:</i><b>Urogenital system</b>; Inhalation-Mouse TCLo • 1000 mg/m<sup>3</sup> 6 Hour(s)(6-15D preg); <i>Reproductive Effects:Effects on Fertility:</i><b>Post-implantation mortality</b>; <i>Reproductive Effects:Effects on Embryo or Fetus:</i><b>Fetotoxicity (except death, e.g., stunted fetus)</b>; <i>Reproductive Effects:Effects on Newborn:</i><b>Sex ratio</b>; Inhalation-Mouse TCLo • 2100 mg/m<sup>3</sup> 6 Hour(s)(6-15D preg); <i>Reproductive Effects:Maternal Effects:</i><b>Other effects</b>; <i>Reproductive Effects:Effects on Fertility:</i><b>Pre-implantation mortality</b>; <i>Reproductive Effects:Effects on Fertility:</i><b>Post-implantation mortality</b>; Inhalation-Rat TCLo • 2500 mg/m<sup>3</sup> 6 Hour(s)(6-15D preg); <i>Reproductive Effects:Maternal Effects:</i><b>Other effects</b>; <i>Reproductive Effects:Specific Developmental Abnormalities:</i><b>Musculoskeletal system</b>; <i>Reproductive Effects:Specific Developmental Abnormalities:</i><b>Other developmental abnormalities</b></p> |
| Titanium dioxide (5% TO 10%) | 13463-67-7 | <p><b>Irritation:</b> Skin-Human • 300 µg 3 Day(s)-Intermittent • Mild irritation;</p> <p><b>Multi-dose Toxicity:</b> Inhalation-Rat TCLo • 250 mg/m<sup>3</sup> 6 Hour(s) 4 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration:</i><b>Chronic pulmonary edema; Lungs, Thorax, or Respiration:Other changes</b>; Inhalation-Rat TCLo • 10 mg/m<sup>3</sup> 6 Hour(s) 13 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration:</i><b>Fibrosis (interstitial); Lungs, Thorax, or Respiration:Other changes</b>; <i>Biochemical:Metabolism (intermediary):</i><b>Effect on inflammation or mediation of inflammation</b>;</p> <p><b>Mutagen:</b> Micronucleus test • Ingestion/Oral-Mouse • 280 mg/kg 7 Day(s)-Intermittent; DNA damage • Ingestion/Oral-Mouse • 280 mg/kg 7 Day(s)-Intermittent; Cytogenetic analysis • Ingestion/Oral-Mouse • 280 mg/kg 7 Day(s)-Intermittent;</p> <p><b>Tumorigen / Carcinogen:</b> Inhalation-Rat • 10 mg/m<sup>3</sup> 18 Hour(s) 2 Year(s)-Intermittent; <i>Tumorigenic:</i><b>Carcinogenic by RTECS criteria; Lungs, Thorax, or Respiration:Tumors</b>; Inhalation-Rat TCLo • 250 mg/m<sup>3</sup> 6 Hour(s) 2 Year(s)-Intermittent; <i>Tumorigenic:</i><b>Carcinogenic by RTECS criteria; Lungs, Thorax, or Respiration:Tumors</b></p>   |
| Zinc oxide (1% TO 5%)        | 1314-13-2  | <p><b>Acute Toxicity:</b> Inhalation-Mouse LC50 • 2500 mg/m<sup>3</sup>;</p> <p><b>Irritation:</b> Eye-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation;</p> <p><b>Reproductive:</b> Ingestion/Oral-Rat TDLo • 6846 mg/kg (1-22D preg); <i>Reproductive Effects:Specific Developmental Abnormalities:</i><b>Homeostasis</b>; <i>Reproductive Effects:Effects on Newborn:</i><b>Stillbirth</b>; <i>Reproductive Effects:Effects on Newborn:</i><b>Growth statistics (e.g., reduced weight gain)</b></p>   |

| GHS Properties                | Classification  |
|-------------------------------|---|
| Acute toxicity                | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking     |
| Skin corrosion/Irritation     | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking     |
| Serious eye damage/Irritation | EU/CLP • Data lacking<br>OSHA HCS 2012 • Eye Irritation 2 |
| Skin sensitization            | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking     |
| Respiratory sensitization     | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking     |
| Aspiration Hazard             | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking     |
| Carcinogenicity               | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking     |
| Germ Cell Mutagenicity        | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking     |
| Toxicity for Reproduction     | EU/CLP • Data lacking<br>OSHA HCS 2012 • Data lacking     |

|         |   |
|---------|---|
| STOT-SE | EU/CLP • Data lacking<br>OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 1   |
| STOT-RE | EU/CLP • Data lacking<br>OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 1 |

## Potential Health Effects

### Inhalation

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • No data available

### Skin

- Acute (Immediate)** • Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)** • Prolonged or repeated skin contact may cause irritation.

### Eye

- Acute (Immediate)** • Causes serious eye irritation.
- Chronic (Delayed)** • No data available

### Ingestion

- Acute (Immediate)** • May affect the kidney. Symptoms may include but are not limited to fatigue, confusion, nausea, vomiting, shortness of breath, seizures, or a dramatic decrease in urine output and in some cases blood in the urine.
- Chronic (Delayed)** • Repeated and prolonged exposure may affect the kidneys. Symptoms may include but are not limited to weight loss, nausea, swelling of the arms and legs, vomiting, fatigue, headaches, decreased urine or urine that is mostly water, decreased mental sharpness, and muscle cramps and shakes.

### Carcinogenic Effects

- Although this material contains titanium dioxide, which may be a carcinogen, due to the physical form of this material, it is unlikely that exposure to titanium dioxide will occur while using this material under normal conditions.

| Carcinogenic Effects |            |                              |                             |
|----------------------|------------|------------------------------|-----------------------------|
|                      | CAS        | IARC                         | NTP                         |
| Ethylene glycol      | 107-21-1   | Not Listed                   | Evidence of Carcinogenicity |
| Titanium dioxide     | 13463-67-7 | Group 2B-Possible Carcinogen | Evidence of Carcinogenicity |

## Section 12 - Ecological Information

### 12.1 Toxicity

|                                 | CAS |   |
|---------------------------------|-----|---|
| AcryliTop™ PC-100 Coating White | NDA | <b>Aquatic Toxicity-Crustacea:</b> 48 Hour(s) EC50 Water Flea <i>Daphnia Magna</i> 1 mg/L Comments: Zinc Oxide<br>48 Hour(s) NOEC Water Flea <i>Daphnia Magna</i> 0.4 mg/L Comments: Zinc Oxide |

### 12.2 Persistence and degradability

- Material data lacking.

### 12.3 Bioaccumulative potential

- Material data lacking.

### 12.4 Mobility in Soil

- Material data lacking.

### 12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

## 12.6 Other adverse effects

- Toxic to aquatic life with long lasting effects.

## Section 13 - Disposal Considerations

### 13.1 Waste treatment methods

#### Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

#### Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## Section 14 - Transport Information

|           | 14.1 UN number | 14.2 UN proper shipping name | 14.3 Transport hazard class(es) | 14.4 Packing group | 14.5 Environmental hazards |
|-----------|----------------|------------------------------|---------------------------------|--------------------|----------------------------|
| DOT       | NDA            | Not Regulated                | NDA                             | NDA                | NDA                        |
| TDG       | NDA            | Not Regulated                | NDA                             | NDA                | NDA                        |
| IMO/IMDG  | NDA            | Not Regulated                | NDA                             | NDA                | NDA                        |
| ADN       | NDA            | Not Regulated                | NDA                             | NDA                | NDA                        |
| ADR/RID   | NDA            | Not Regulated                | NDA                             | NDA                | NDA                        |
| IATA/ICAO | NDA            | Not Regulated                | NDA                             | NDA                | NDA                        |

#### 14.6 Special precautions for user

- None specified.

#### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Data lacking.

## Section 15 - Regulatory Information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### SARA Hazard Classifications

- Acute, Chronic

| State Right To Know                       |            |     |     |     |
|---|------------|-----|-----|-----|
| Component                                 | CAS        | MA  | NJ  | PA  |
| Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | No  | No  | No  |
| Titanium dioxide                          | 13463-67-7 | Yes | Yes | Yes |
| Water                                     | 7732-18-5  | No  | No  | No  |
| Zinc oxide                                | 1314-13-2  | Yes | Yes | Yes |

| Inventory                                 |            |            |             |       |           |           |
|---|------------|------------|-------------|-------|-----------|-----------|
| Component                                 | CAS        | Canada DSL | Canada NDSL | China | EU EINECS | EU ELNICS |
| Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Yes        | No          | Yes   | Yes       | No        |
| Titanium dioxide                          | 13463-67-7 | Yes        | No          | Yes   | Yes       | No        |

| Water                                     | 7732-18-5  | Yes        | No         | Yes  | Yes | No |
|---|------------|------------|------------|------|-----|----|
| Zinc oxide                                | 1314-13-2  | Yes        | No         | Yes  | Yes | No |
| Inventory (Con't.)                        |            |            |            |      |     |    |
| Component                                 | CAS        | Japan ENCS | Korea KECL | TSCA |     |    |
| Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Yes        | Yes        | Yes  |     |    |
| Titanium dioxide                          | 13463-67-7 | Yes        | Yes        | Yes  |     |    |
| Water                                     | 7732-18-5  | No         | Yes        | Yes  |     |    |
| Zinc oxide                                | 1314-13-2  | Yes        | Yes        | Yes  |     |    |

## Australia

### Labor

#### Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

#### Australia - High Volume Industrial Chemicals List

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 |            |
| • Titanium dioxide                          | 13463-67-7 |            |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  |            |

#### Australia - List of Designated Hazardous Substances - Classification

|   |            |  |
|---|------------|--|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed   |
| • Titanium dioxide                          | 13463-67-7 | Not Listed   |
| • Zinc oxide                                | 1314-13-2  | Self classification required (dust and fume); N R50, R53 |
| • Water                                     | 7732-18-5  | Not Listed   |

### Environment

#### Australia - National Pollutant Inventory (NPI) Substance List

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

#### Australia - Ozone Protection Act - Scheduled Substances

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

#### Australia - Priority Existing Chemical Program

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

## Belgium

**Labor****Belgium - Substances and Preparations - Carcinogens and Mutagens**

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

**Bulgaria****Environment****Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour**

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

**Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 30 Minute**

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

**Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - Annual**

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

**Canada****Labor****Canada - WHMIS - Classifications of Substances**

|   |            |  |
|---|------------|--|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Uncontrolled product according to WHMIS classification criteria<br>D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Titanium dioxide, mixture containing on Health Canada's WHMIS Division website.) |
| • Titanium dioxide                          | 13463-67-7 | Uncontrolled product according to WHMIS classification criteria  |
| • Zinc oxide                                | 1314-13-2  | Uncontrolled product according to WHMIS classification criteria  |
| • Water                                     | 7732-18-5  | Uncontrolled product according to WHMIS classification criteria  |

**Canada - WHMIS - Ingredient Disclosure List**

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | 1 %        |
| • Water                                     | 7732-18-5  | Not Listed |

**Environment****Canada - CEPA - Priority Substances List**

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

**China****Other****China - Annex I & II - Controlled Chemicals Lists**

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

**Denmark****Environment****Denmark - List of Undesirable Substances - Product Groups/Function**

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

**Europe****Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | N; R50-53  |
| • Water                                     | 7732-18-5  | Not Listed |

**EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits**

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

**EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling**

|   |            |                   |
|---|------------|-------------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed        |
| • Titanium dioxide                          | 13463-67-7 | Not Listed        |
| • Zinc oxide                                | 1314-13-2  | N R:50/53 S:60-61 |
| • Water                                     | 7732-18-5  | Not Listed        |

**EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations**

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

**EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases**

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | S:60-61    |
| • Water                                     | 7732-18-5  | Not Listed |

## Germany

### Labor

#### Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

#### Germany - Immission Control - Qualifying Quantities for Safety Reporting

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

#### Germany - TRGS 505 - Specific Lead Regulations

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

#### Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

### Environment

#### Germany - TA Luft - Types and Classes

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

#### Germany - TA Luft - Emission Limits for Carcinogenic Substances

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

#### Germany - TA Luft - Emission Limits for Fibers

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

#### Germany - TA Luft - Emission Limits for Inorganic Dusts

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

#### Germany - TA Luft - Emission Limits for Inorganic Gases

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
|---|------------|------------|



|  |            |   |
|--|------------|---|
| • Titanium dioxide   | 13463-67-7 | Not Listed  |
| • Zinc oxide   | 1314-13-2  | Not Listed  |
| • Water  | 7732-18-5  | Not Listed  |
| <b>Germany - TA Luft - Emission Limits for Organic Substances</b>              |            |   |
| • Aluminum hydroxide (Al(OH) <sub>3</sub> )                                    | 21645-51-2 | Not Listed  |
| • Titanium dioxide   | 13463-67-7 | Not Listed  |
| • Zinc oxide   | 1314-13-2  | Not Listed  |
| • Water  | 7732-18-5  | Not Listed  |
| <b>Germany - Water Classification (VwVwS) - Annex 1</b>                        |            |   |
| • Aluminum hydroxide (Al(OH) <sub>3</sub> )                                    | 21645-51-2 | Not Listed  |
| • Titanium dioxide   | 13463-67-7 | ID Number 1345, not considered hazardous to water |
| • Zinc oxide   | 1314-13-2  | Not Listed  |
| • Water  | 7732-18-5  | Not Listed  |
| <b>Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes</b> |            |   |
| • Aluminum hydroxide (Al(OH) <sub>3</sub> )                                    | 21645-51-2 | Not Listed  |
| • Titanium dioxide   | 13463-67-7 | Not Listed  |
| • Zinc oxide   | 1314-13-2  | Not Listed  |
| • Water  | 7732-18-5  | Not Listed  |
| <b>Germany - Water Classification (VwVwS) - Annex 3</b>                        |            |   |
| • Aluminum hydroxide (Al(OH) <sub>3</sub> )                                    | 21645-51-2 | ID Number 5220, not considered hazardous to water |
| • Titanium dioxide   | 13463-67-7 | Not Listed  |
| • Zinc oxide   | 1314-13-2  | ID Number 2187, hazard class 2 - hazard to waters |
| • Water  | 7732-18-5  | Not Listed  |

## United States

### Labor

#### U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

#### U.S. - OSHA - Specifically Regulated Chemicals

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

### Environment

#### U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

#### U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

**U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities**

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

**U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs**

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

**U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs**

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

**U.S. - CERCLA/SARA - Section 313 - Emission Reporting**

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

**U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing**

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

**United States - California****Environment****U.S. - California - Proposition 65 - Carcinogens List**

|   |            |   |
|---|------------|---|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed  |
| • Titanium dioxide                          | 13463-67-7 | carcinogen, initial date 9/2/11<br>(airborne, unbound particles of respirable size) |
| • Zinc oxide                                | 1314-13-2  | Not Listed  |
| • Water                                     | 7732-18-5  | Not Listed  |

**U.S. - California - Proposition 65 - Developmental Toxicity**

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

**U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)**

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |

|   |            |            |
|---|------------|------------|
| • Water   | 7732-18-5  | Not Listed |
| <b>U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)</b> |            |            |
| • Aluminum hydroxide (Al(OH) <sub>3</sub> )                                   | 21645-51-2 | Not Listed |
| • Titanium dioxide  | 13463-67-7 | Not Listed |
| • Zinc oxide  | 1314-13-2  | Not Listed |
| • Water   | 7732-18-5  | Not Listed |
| <b>U.S. - California - Proposition 65 - Reproductive Toxicity - Female</b>    |            |            |
| • Aluminum hydroxide (Al(OH) <sub>3</sub> )                                   | 21645-51-2 | Not Listed |
| • Titanium dioxide  | 13463-67-7 | Not Listed |
| • Zinc oxide  | 1314-13-2  | Not Listed |
| • Water   | 7732-18-5  | Not Listed |
| <b>U.S. - California - Proposition 65 - Reproductive Toxicity - Male</b>      |            |            |
| • Aluminum hydroxide (Al(OH) <sub>3</sub> )                                   | 21645-51-2 | Not Listed |
| • Titanium dioxide  | 13463-67-7 | Not Listed |
| • Zinc oxide  | 1314-13-2  | Not Listed |
| • Water   | 7732-18-5  | Not Listed |

## United States - Pennsylvania

### Labor

#### U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | (fume)     |
| • Water                                     | 7732-18-5  | Not Listed |

#### U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

|   |            |            |
|---|------------|------------|
| • Aluminum hydroxide (Al(OH) <sub>3</sub> ) | 21645-51-2 | Not Listed |
| • Titanium dioxide                          | 13463-67-7 | Not Listed |
| • Zinc oxide                                | 1314-13-2  | Not Listed |
| • Water                                     | 7732-18-5  | Not Listed |

## 15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

## 15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

## Section 16 - Other Information

### Relevant Phrases (code & full text)

- H302 - Harmful if swallowed
- H341 - Suspected of causing genetic defects.
- H351 - Suspected of causing cancer.
- H373 - May cause damage to organs through prolonged or repeated exposure.
- H400 - Very toxic to aquatic life
- H410 - Very toxic to aquatic life with long lasting effects
- R22 - Harmful if swallowed.
- R40 - Limited evidence of a carcinogenic effect.
- R50 - Very toxic to aquatic organisms.
- R68 - Possible risk of irreversible effects.

**Revision Date**

- 24/January/2018

**Preparation Date**

- 15/October/2014

**Other Information**

- Changes to this revision: Updated mailing address.

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**Key to abbreviations**

NDA = No data available