



## RustPlate Primer-White F92700

### ICP Construction

Version No: 1.1

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: **02/16/2017**

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S.GHS.USA.EN

## SECTION 1 IDENTIFICATION

### Product Identifier

|                               |                               |
|-------------------------------|-------------------------------|
| Product name                  | RustPlate Primer-White F92700 |
| Synonyms                      | Not Available                 |
| Other means of identification | Not Available                 |

### Recommended use of the chemical and restrictions on use

|                          |        |
|--------------------------|--------|
| Relevant identified uses | Primer |
|--------------------------|--------|

### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

|                         |  |
|-------------------------|--|
| Registered company name | ICP Construction                                     |
| Address                 | 150 Dascomb Road Massachusetts Andover United States |
| Telephone               | 978-623-9980   |
| Fax                     | Not Available  |
| Website                 | Not Available  |
| Email                   | Not Available  |

### Emergency phone number


|                                   |                |
|-----------------------------------|----------------|
| Association / Organisation        | Chemtel        |
| Emergency telephone numbers       | 1-800-255-3924 |
| Other emergency telephone numbers | 1-813-248-0585 |

## SECTION 2 HAZARD(S) IDENTIFICATION

### Classification of the substance or mixture

|                |   |
|----------------|---|
| Classification | Aspiration Hazard Category 1, Carcinogenicity Category 2, Chronic Aquatic Hazard Category 3 |
|----------------|---|

### Label elements

|                    |   |
|--------------------|---|
| GHS label elements |  |
|--------------------|---|

|             |               |
|-------------|---------------|
| SIGNAL WORD | <b>DANGER</b> |
|-------------|---------------|

### Hazard statement(s)

|      |  |
|------|--|
| H304 | May be fatal if swallowed and enters airways.      |
| H351 | Suspected of causing cancer.                       |
| H412 | Harmful to aquatic life with long lasting effects. |

### Hazard(s) not otherwise specified

Not Applicable

### Precautionary statement(s) Prevention

|      |  |
|------|--|
| P201 | Obtain special instructions before use.        |
| P281 | Use personal protective equipment as required. |

Continued...

|      |                                   |
|------|-----------------------------------|
| P273 | Avoid release to the environment. |
|------|-----------------------------------|

**Precautionary statement(s) Response**

|           |   |
|-----------|---|
| P301+P310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention.              |
| P331      | Do NOT induce vomiting.   |

**Precautionary statement(s) Storage**

|      |                  |
|------|------------------|
| P405 | Store locked up. |
|------|------------------|

**Precautionary statement(s) Disposal**

|      |   |
|------|---|
| P501 | Dispose of contents/container in accordance with local regulations. |
|------|---|

**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS****Substances**

See section below for composition of Mixtures

**Mixtures**

| CAS No     | %[weight] | Name   |
|------------|-----------|--|
| 12251-27-3 |           | <u>nepheline</u>                                   |
| 64742-47-8 | 12.76     | <u>distillates, petroleum, light, hydrotreated</u> |
| 1330-20-7  | 0.6       | <u>xylene</u>                                      |
| 100-41-4   | 0.14      | <u>ethylbenzene</u>                                |
| 14808-60-7 | <0.01     | <u>silica crystalline - quartz</u>                 |
| not avail. | 6         | <u>Non-hazardous ingredient</u>                    |
| 64742-88-7 | 0.04      | <u>solvent naphtha petroleum, medium aliphatic</u> |
| 471-34-1   | 0.24      | <u>calcium carbonate</u>                           |
| 64742-95-6 | 3.1       | <u>aromatic 150</u>                                |
| 98-56-6    | 4.4       | <u>4-chlorobenzotrifluoride</u>                    |
| 8052-41-3  | 0.04      | <u>white spirit</u>                                |
| 681-84-5   | 0.1       | <u>methyl silicate</u>                             |

**SECTION 4 FIRST-AID MEASURES****Description of first aid measures**

|                     |  |
|---------------------|--|
| <b>Eye Contact</b>  | <p>If this product comes in contact with eyes:</p> <ul style="list-style-type: none"> <li>▶ Wash out immediately with water.</li> <li>▶ If irritation continues, seek medical attention.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>   |
| <b>Skin Contact</b> | <p>If skin contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Immediately remove all contaminated clothing, including footwear.</li> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Seek medical attention in event of irritation.</li> </ul>  |
| <b>Inhalation</b>   | <ul style="list-style-type: none"> <li>▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>▶ Other measures are usually unnecessary.</li> </ul>  |
| <b>Ingestion</b>    | <ul style="list-style-type: none"> <li>▶ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.</li> <li>▶ <b>If swallowed do NOT induce vomiting.</b></li> <li>▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>▶ Observe the patient carefully.</li> <li>▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>▶ Seek medical advice.</li> <li>▶ Avoid giving milk or oils.</li> <li>▶ Avoid giving alcohol.</li> </ul> |

**Most important symptoms and effects, both acute and delayed**

See Section 11

**Indication of any immediate medical attention and special treatment needed**

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.

For acute or short term repeated exposures to xylene:

- ▶ Gastro-intestinal absorption is significant with ingestions. For ingestions exceeding 1-2 ml (xylene)/kg, intubation and lavage with cuffed endotracheal tube is recommended. The use of charcoal and cathartics is equivocal.
- ▶ Pulmonary absorption is rapid with about 60-65% retained at rest.
- ▶ Primary threat to life from ingestion and/or inhalation, is respiratory failure.

Continued...

- ▶ Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO<sub>2</sub> < 50 mm Hg or pCO<sub>2</sub> > 50 mm Hg) should be intubated.
- ▶ Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- ▶ A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- ▶ Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.

## BIOLOGICAL EXPOSURE INDEX - BEI

These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV):

| Determinant                    | Index                            | Sampling Time                       | Comments |
|--------------------------------|----------------------------------|-------------------------------------|----------|
| Methylhippu-ric acids in urine | 1.5 gm/gm creatinine<br>2 mg/min | End of shift<br>Last 4 hrs of shift |          |

## SECTION 5 FIRE-FIGHTING MEASURES

## Extinguishing media

- ▶ Foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.
- ▶ Water spray or fog - Large fires only.

## Special hazards arising from the substrate or mixture

|                             |  |
|-----------------------------|--|
| <b>Fire Incompatibility</b> | ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |
|-----------------------------|--|

## Special protective equipment and precautions for fire-fighters

|                              |  |
|------------------------------|--|
| <b>Fire Fighting</b>         | <ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear full body protective clothing with breathing apparatus.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▶ Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>▶ Avoid spraying water onto liquid pools.</li> <li>▶ <b>DO NOT</b> approach containers suspected to be hot.</li> <li>▶ Cool fire exposed containers with water spray from a protected location.</li> <li>▶ If safe to do so, remove containers from path of fire.</li> </ul> |
| <b>Fire/Explosion Hazard</b> | <ul style="list-style-type: none"> <li>▶ Combustible.</li> <li>▶ Slight fire hazard when exposed to heat or flame.</li> <li>▶ Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>▶ On combustion, may emit toxic fumes of carbon monoxide (CO).</li> <li>▶ May emit acrid smoke.</li> <li>▶ Mists containing combustible materials may be explosive.</li> </ul> <p>Combustion products include:<br/>carbon dioxide (CO<sub>2</sub>)<br/>other pyrolysis products typical of burning organic material.<br/>May emit poisonous fumes.<br/>May emit corrosive fumes.</p>                                       |

## SECTION 6 ACCIDENTAL RELEASE MEASURES

## Personal precautions, protective equipment and emergency procedures

See section 8

## Environmental precautions

See section 12

## Methods and material for containment and cleaning up

|                     |  |
|---------------------|--|
| <b>Minor Spills</b> | <p>Environmental hazard - contain spillage.</p> <ul style="list-style-type: none"> <li>▶ Remove all ignition sources.</li> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours and contact with skin and eyes.</li> <li>▶ Control personal contact with the substance, by using protective equipment.</li> <li>▶ Contain and absorb spill with sand, earth, inert material or vermiculite.</li> <li>▶ Wipe up.</li> <li>▶ Place in a suitable, labelled container for waste disposal.</li> </ul>   |
| <b>Major Spills</b> | <p>Environmental hazard - contain spillage.<br/>Moderate hazard.</p> <ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▶ No smoking, naked lights or ignition sources.</li> <li>▶ Increase ventilation.</li> <li>▶ Stop leak if safe to do so.</li> <li>▶ Contain spill with sand, earth or vermiculite.</li> <li>▶ Collect recoverable product into labelled containers for recycling.</li> <li>▶ Absorb remaining product with sand, earth or vermiculite.</li> <li>▶ Collect solid residues and seal in labelled drums for disposal.</li> <li>▶ Wash area and prevent runoff into drains.</li> <li>▶ If contamination of drains or waterways occurs, advise emergency services.</li> </ul> |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 HANDLING AND STORAGE

### Precautions for safe handling

|                          |  |
|--------------------------|--|
| <b>Safe handling</b>     | <ul style="list-style-type: none"> <li>▶ Electrostatic discharge may be generated during pumping - this may result in fire.</li> <li>▶ Ensure electrical continuity by bonding and grounding (earthing) all equipment.</li> <li>▶ Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<math>\leq 1</math> m/sec until fill pipe submerged to twice its diameter, then <math>\leq 7</math> m/sec).</li> <li>▶ Avoid splash filling.</li> <li>▶ Do NOT use compressed air for filling discharging or handling operations.</li> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Prevent concentration in hollows and sumps.</li> <li>▶ <b>DO NOT enter confined spaces until atmosphere has been checked.</b></li> <li>▶ Avoid smoking, naked lights or ignition sources.</li> <li>▶ Avoid contact with incompatible materials.</li> <li>▶ When handling, <b>DO NOT eat, drink or smoke.</b></li> <li>▶ Keep containers securely sealed when not in use.</li> <li>▶ Avoid physical damage to containers.</li> <li>▶ Always wash hands with soap and water after handling.</li> <li>▶ Work clothes should be laundered separately.</li> <li>▶ Use good occupational work practice.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.</li> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> </ul> |
| <b>Other information</b> | <ul style="list-style-type: none"> <li>▶ Store in original containers.</li> <li>▶ Keep containers securely sealed.</li> <li>▶ No smoking, naked lights or ignition sources.</li> <li>▶ Store in a cool, dry, well-ventilated area.</li> <li>▶ Store away from incompatible materials and foodstuff containers.</li> <li>▶ Protect containers against physical damage and check regularly for leaks.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul>   |

### Conditions for safe storage, including any incompatibilities

|                                |   |
|--------------------------------|---|
| <b>Suitable container</b>      | <ul style="list-style-type: none"> <li>▶ Metal can or drum</li> <li>▶ Packaging as recommended by manufacturer.</li> <li>▶ Check all containers are clearly labelled and free from leaks.</li> </ul>  |
| <b>Storage incompatibility</b> | <p>Xylenes:</p> <ul style="list-style-type: none"> <li>▶ may ignite or explode in contact with strong oxidisers, 1,3-dichloro-5,5-dimethylhydantoin, uranium fluoride</li> <li>▶ attack some plastics, rubber and coatings</li> <li>▶ may generate electrostatic charges on flow or agitation due to low conductivity.</li> <li>▶ Vigorous reactions, sometimes amounting to explosions, can result from the contact between aromatic rings and strong oxidising agents.</li> <li>▶ Aromatics can react exothermically with bases and with diazo compounds.</li> </ul> <p>For alkyl aromatics:</p> <p>The alkyl side chain of aromatic rings can undergo oxidation by several mechanisms. The most common and dominant one is the attack by oxidation at benzylic carbon as the intermediate formed is stabilised by resonance structure of the ring.</p> <ul style="list-style-type: none"> <li>▶ Following reaction with oxygen and under the influence of sunlight, a hydroperoxide at the alpha-position to the aromatic ring, is the primary oxidation product formed (provided a hydrogen atom is initially available at this position) - this product is often short-lived but may be stable dependent on the nature of the aromatic substitution; a secondary C-H bond is more easily attacked than a primary C-H bond whilst a tertiary C-H bond is even more susceptible to attack by oxygen</li> <li>▶ Monoalkylbenzenes may subsequently form monocarboxylic acids; alkyl naphthalenes mainly produce the corresponding naphthalene carboxylic acids.</li> <li>▶ Oxidation in the presence of transition metal salts not only accelerates but also selectively decomposes the hydroperoxides.</li> <li>▶ Hock-rearrangement by the influence of strong acids converts the hydroperoxides to hemiacetals. Peresters formed from the hydroperoxides undergo Criegee rearrangement easily.</li> <li>▶ Alkali metals accelerate the oxidation while CO<sub>2</sub> as co-oxidant enhances the selectivity.</li> <li>▶ Microwave conditions give improved yields of the oxidation products.</li> <li>▶ Photo-oxidation products may occur following reaction with hydroxyl radicals and NO<sub>x</sub> - these may be components of photochemical smogs.</li> </ul> <p>Oxidation of Alkylaromatics: T.S.S Rao and Shubhra Awasthi: E-Journal of Chemistry Vol 4, No. 1, pp 1-13 January 2007</p> |

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters

#### OCCUPATIONAL EXPOSURE LIMITS (OEL)

#### INGREDIENT DATA

| Source  | Ingredient                                  | Material name   | TWA                 | STEL          | Peak          | Notes               |
|---|---|---|---------------------|---------------|---------------|---------------------|
| US OSHA Permissible Exposure Levels (PELs) - Table Z1 | distillates, petroleum, light, hydrotreated | Oil mist, mineral   | 5 mg/m <sup>3</sup> | Not Available | Not Available | Not Available       |
| US ACGIH Threshold Limit Values (TLV)                 | distillates, petroleum, light, hydrotreated | Mineral oil, excluding metal working fluids - Pure, highly and severely refined / Mineral oil, excluding metal working fluids - Poorly and mildly refined | 5 mg/m <sup>3</sup> | Not Available | Not Available | TLV® Basis: URT irr |

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|   |   |   |  |                     |               |  |
|---|---|---|--|---------------------|---------------|--|
| US NIOSH Recommended Exposure Limits (RELs)           | distillates, petroleum, light, hydrotreated | Heavy mineral oil mist, Paraffin oil mist, White mineral oil mist   | 5 mg/m3  | 10 mg/m3            | Not Available | Not Available  |
| US OSHA Permissible Exposure Levels (PELs) - Table Z1 | xylene                                      | Xylenes (o-, m-, p-isomers)   | 435 mg/m3 / 100 ppm  | Not Available       | Not Available | Not Available  |
| US ACGIH Threshold Limit Values (TLV)                 | xylene                                      | Xylene (all isomers)  | 100 ppm  | 150 ppm             | Not Available | TLV® Basis: URT & eye irr; CNS impair; BEI   |
| US OSHA Permissible Exposure Levels (PELs) - Table Z1 | ethylbenzene                                | Ethyl benzene   | 435 mg/m3 / 100 ppm  | Not Available       | Not Available | Not Available  |
| US ACGIH Threshold Limit Values (TLV)                 | ethylbenzene                                | Ethyl benzene   | 20 ppm   | Not Available       | Not Available | TLV® Basis: URT irr; kidney dam (nephropathy); cochlear impair; BEI  |
| US NIOSH Recommended Exposure Limits (RELs)           | ethylbenzene                                | Ethylbenzol, Phenylethane   | 435 mg/m3 / 100 ppm  | 545 mg/m3 / 125 ppm | Not Available | Not Available  |
| US OSHA Permissible Exposure Levels (PELs) - Table Z1 | silica crystalline - quartz                 | Silica, crystalline quartz, respirable dust   | Not Available  | Not Available       | Not Available | See Table Z-3  |
| US OSHA Permissible Exposure Levels (PELs) - Table Z3 | silica crystalline - quartz                 | Silica: Crystalline Quartz  | 10/(% SiO <sub>2</sub> + 2) mg/m3 / 30/(% SiO <sub>2</sub> + 2) mg/m3 / 250/(%SiO <sub>2</sub> +5) mppcf | Not Available       | Not Available | (Respirable);(TWA mppcf (The percentage of crystalline silica in the formula is the amount determined from airborne samples, except in those instances in which other methods have been shown to be applicable)); (TWA mg/m3 (e)) / (Total Dust) |
| US NIOSH Recommended Exposure Limits (RELs)           | silica crystalline - quartz                 | Cristobalite, Quartz, Tridymite, Tripoli  | 0.05 mg/m3   | Not Available       | Not Available | Ca See Appendix A  |
| US OSHA Permissible Exposure Levels (PELs) - Table Z1 | solvent naphtha petroleum, medium aliphatic | Oil mist, mineral   | 5 mg/m3  | Not Available       | Not Available | Not Available  |
| US ACGIH Threshold Limit Values (TLV)                 | solvent naphtha petroleum, medium aliphatic | Mineral oil, excluding metal working fluids - Pure, highly and severely refined / Mineral oil, excluding metal working fluids - Poorly and mildly refined   | 5 mg/m3  | Not Available       | Not Available | TLV® Basis: URT irr  |
| US NIOSH Recommended Exposure Limits (RELs)           | solvent naphtha petroleum, medium aliphatic | Heavy mineral oil mist, Paraffin oil mist, White mineral oil mist   | 5 mg/m3  | 10 mg/m3            | Not Available | Not Available  |
| US OSHA Permissible Exposure Levels (PELs) - Table Z1 | calcium carbonate                           | Calcium carbonate / Calcium carbonate - Respirable fraction   | 15 mg/m3 / 5 mg/m3   | Not Available       | Not Available | Total dust   |
| US NIOSH Recommended Exposure Limits (RELs)           | calcium carbonate                           | Calcium carbonate, Natural calcium carbonate [Note: Calcite & aragonite are commercially important natural calcium carbonates.] / Calcium carbonate, Natural calcium carbonate [Note: Marble is a metamorphic form of calcium carbonate.] | 10 (total), 5 (resp) mg/m3   | Not Available       | Not Available | Not Available  |
| US NIOSH Recommended Exposure Limits (RELs)           | calcium carbonate                           | Calcium salt of carbonic acid [Note: Occurs in nature as limestone, chalk, marble, dolomite, aragonite, calcite and oyster shells.]   | 10 (total), 5 (resp) mg/m3   | Not Available       | Not Available | Not Available  |
| US OSHA Permissible Exposure Levels (PELs) - Table Z1 | white spirit                                | Stoddard solvent  | 2900 mg/m3 / 500 ppm   | Not Available       | Not Available | Not Available  |
| US ACGIH Threshold Limit Values (TLV)                 | white spirit                                | Stoddard solvent  | 100 ppm  | Not Available       | Not Available | TLV® Basis: Eye, skin, & kidney dam; nausea; CNS impair  |
| US NIOSH Recommended Exposure Limits (RELs)           | white spirit                                | Dry cleaning safety solvent, Mineral spirits, Petroleum solvent, Spotting naphtha [Note: A refined petroleum solvent with a flash point of 102-110°F, boiling point of 309-396°F, and containing >65% C10 or higher hydrocarbons.]        | 350 mg/m3  | Not Available       | 1800 mg/m3    | [15-minute]  |
| US OSHA Permissible Exposure Levels (PELs) - Table Z1 | methyl silicate                             | Silicates - Mica / Silicates - Soapstone / Silicates- Soapstone / Silicates - Talc / Silicates - Tremolite,   | 0.1 mg/m3  | Not Available       | Not Available | See Table Z-3;less than 1% crystalline silica(respirable dust) / See Table Z-3;less than 1% crystalline silica, total dust / See Table Z-3;less than 1% crystalline silica, respirable dust / less   |

|   |                 |   |                     |               |               |   |
|---|-----------------|---|---------------------|---------------|---------------|---|
|   |                 | asbestiform   |                     |               |               | than 1% crystalline silica;see 29 CFR 1910.1001;See Table Z-3;(containing asbestos); use asbestos limit; (STEL (Excursion limit)(as averaged over a sampling period of 30 minutes)) / less than 1% crystalline silica;See Table Z-3, (containing no asbestos), respirable dust / (as quartz), respirable dust;ess than 1% crystalline silica;see 1910.1001;(STEL (Excursion limit)(as averaged over a sampling period of 30 minutes)) |
| US OSHA Permissible Exposure Levels (PELs) - Table Z3 | methyl silicate | Silicates: Mica / Silicates: Soapstone / Silicates: Talc / Silicates: Tremolite, asbestiforms     | 0.1 f/cc / 20 mppcf | Not Available | Not Available | (less than 1% crystalline silica) / (containing asbestos) Use asbestos limit;(less than 1% crystalline silica) / (see 29 CFR 1910.1001);(less than 1% crystalline silica)   |
| US ACGIH Threshold Limit Values (TLV)                 | methyl silicate | Methyl silicate   | 1 ppm               | Not Available | Not Available | TLV® Basis: URT irr; eye dam  |
| US NIOSH Recommended Exposure Limits (RELs)           | methyl silicate | Methyl orthosilicate, Tetramethoxysilane, Tetramethyl ester of silicic acid, Tetramethyl silicate | 6 mg/m3 / 1 ppm     | Not Available | Not Available | Not Available   |


**EMERGENCY LIMITS**

| Ingredient                  | Material name   | TEEL-1        | TEEL-2        | TEEL-3        |
|-----------------------------|---|---------------|---------------|---------------|
| xylene                      | Xylenes   | Not Available | Not Available | Not Available |
| ethylbenzene                | Ethyl benzene   | Not Available | Not Available | Not Available |
| silica crystalline - quartz | Silica, crystalline-quartz; (Silicon dioxide)                             | 0.075 mg/m3   | 33 mg/m3      | 200 mg/m3     |
| calcium carbonate           | Limestone; (Calcium carbonate; Dolomite)                                  | 45 mg/m3      | 500 mg/m3     | 3,000 mg/m3   |
| calcium carbonate           | Carbonic acid, calcium salt   | 45 mg/m3      | 210 mg/m3     | 1,300 mg/m3   |
| white spirit                | Stoddard solvent; (Mineral spirits, 85% nonane and 15% trimethyl benzene) | 300 mg/m3     | 1,800 mg/m3   | 29500 mg/m3   |
| methyl silicate             | Tetramethoxysilane; (Methyl silicate)                                     | 0.083 ppm     | Not Available | Not Available |

| Ingredient                                  | Original IDLH         | Revised IDLH  |
|---|-----------------------|---------------|
| nepheline                                   | Not Available         | Not Available |
| distillates, petroleum, light, hydrotreated | Not Available         | Not Available |
| xylene                                      | 1,000 ppm             | 900 ppm       |
| ethylbenzene                                | 2,000 ppm             | 800 [LEL] ppm |
| silica crystalline - quartz                 | N.E. mg/m3 / N.E. ppm | 50 mg/m3      |
| Non-hazardous ingredient                    | Not Available         | Not Available |
| solvent naphtha petroleum, medium aliphatic | Not Available         | Not Available |
| calcium carbonate                           | Not Available         | Not Available |
| aromatic 150                                | Not Available         | Not Available |
| 4-chlorobenzotrifluoride                    | Not Available         | Not Available |
| white spirit                                | 29,500 mg/m3          | 20,000 mg/m3  |
| methyl silicate                             | Not Available         | Not Available |

**Exposure controls**

| <b>Appropriate engineering controls</b>   | <p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <ul style="list-style-type: none"> <li>Process controls which involve changing the way a job activity or process is done to reduce the risk.</li> <li>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.</li> <li>Employers may need to use multiple types of controls to prevent employee overexposure.</li> </ul> <p>Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection. An approved self contained breathing apparatus (SCBA) may be required in some situations. Provide adequate ventilation in warehouse or closed storage area. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.</p> |                      |            |  |                              |   |                            |  |                            |  |
|---|--|----------------------|------------|--|------------------------------|---|----------------------------|--|----------------------------|--|
|   | <table border="1"> <thead> <tr> <th>Type of Contaminant:</th> <th>Air Speed:</th> </tr> </thead> <tbody> <tr> <td>solvent, vapours, degreasing etc., evaporating from tank (in still air).</td> <td>0.25-0.5 m/s (50-100 f/min.)</td> </tr> <tr> <td>aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)</td> <td>0.5-1 m/s (100-200 f/min.)</td> </tr> <tr> <td>direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)</td> <td>1-2.5 m/s (200-500 f/min.)</td> </tr> <tr> <td>grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).</td> <td>2.5-10 m/s (500-2000 f/min.)</td> </tr> </tbody> </table> <p>Within each range the appropriate value depends on:</p>   | Type of Contaminant: | Air Speed: | solvent, vapours, degreasing etc., evaporating from tank (in still air). | 0.25-0.5 m/s (50-100 f/min.) | aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation) | 0.5-1 m/s (100-200 f/min.) | direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion) | 1-2.5 m/s (200-500 f/min.) | grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion). |
| Type of Contaminant:  | Air Speed:   |                      |            |  |                              |   |                            |  |                            |  |
| solvent, vapours, degreasing etc., evaporating from tank (in still air).  | 0.25-0.5 m/s (50-100 f/min.)   |                      |            |  |                              |   |                            |  |                            |  |
| aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation) | 0.5-1 m/s (100-200 f/min.)   |                      |            |  |                              |   |                            |  |                            |  |
| direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)  | 1-2.5 m/s (200-500 f/min.)   |                      |            |  |                              |   |                            |  |                            |  |
| grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).  | 2.5-10 m/s (500-2000 f/min.)   |                      |            |  |                              |   |                            |  |                            |  |

|  |   |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
|--|---|------------------------|------------------------|---|---------------------------------|--|----------------------------------|----------------------------------|-------------------------------|---|----------------------------------|
|  | <table border="1"> <tr> <td>Lower end of the range</td> <td>Upper end of the range</td> </tr> <tr> <td>1: Room air currents minimal or favourable to capture</td> <td>1: Disturbing room air currents</td> </tr> <tr> <td>2: Contaminants of low toxicity or of nuisance value only.</td> <td>2: Contaminants of high toxicity</td> </tr> <tr> <td>3: Intermittent, low production.</td> <td>3: High production, heavy use</td> </tr> <tr> <td>4: Large hood or large air mass in motion</td> <td>4: Small hood-local control only</td> </tr> </table> <p>Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.</p>   | Lower end of the range | Upper end of the range | 1: Room air currents minimal or favourable to capture | 1: Disturbing room air currents | 2: Contaminants of low toxicity or of nuisance value only. | 2: Contaminants of high toxicity | 3: Intermittent, low production. | 3: High production, heavy use | 4: Large hood or large air mass in motion | 4: Small hood-local control only |
| Lower end of the range                                     | Upper end of the range  |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| 1: Room air currents minimal or favourable to capture      | 1: Disturbing room air currents   |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| 2: Contaminants of low toxicity or of nuisance value only. | 2: Contaminants of high toxicity  |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| 3: Intermittent, low production.                           | 3: High production, heavy use   |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| 4: Large hood or large air mass in motion                  | 4: Small hood-local control only  |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| <b>Personal protection</b>                                 |    |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| <b>Eye and face protection</b>                             | <ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ Chemical goggles.</li> <li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]</li> </ul>   |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| <b>Skin protection</b>                                     | See Hand protection below   |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| <b>Hands/feet protection</b>                               | <ul style="list-style-type: none"> <li>▶ Wear chemical protective gloves, e.g. PVC.</li> <li>▶ Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul> <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.</p> <p>Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:</p> <ul style="list-style-type: none"> <li>• frequency and duration of contact,</li> <li>• chemical resistance of glove material,</li> <li>• glove thickness and</li> <li>• dexterity</li> </ul> <p>Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).</p> <ul style="list-style-type: none"> <li>• When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>• When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>• Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.</li> <li>• Contaminated gloves should be replaced.</li> </ul> <p>For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.</p> <p>It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.</p> <p>Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be taken into account to ensure selection of the most appropriate glove for the task.</p> <p>Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:</p> <ul style="list-style-type: none"> <li>• Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.</li> <li>• Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential</li> </ul> <p>Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p> |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| <b>Body protection</b>                                     | See Other protection below  |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| <b>Other protection</b>                                    | <ul style="list-style-type: none"> <li>▶ Overalls.</li> <li>▶ P.V.C. apron.</li> <li>▶ Barrier cream.</li> <li>▶ Skin cleansing cream.</li> <li>▶ Eye wash unit.</li> </ul>   |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| <b>Thermal hazards</b>                                     | Not Available   |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |

## Respiratory protection

Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content. The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

| Required minimum protection factor | Maximum gas/vapour concentration present in air p.p.m. (by volume) | Half-face Respirator | Full-Face Respirator |
|------------------------------------|--|----------------------|----------------------|
| up to 10                           | 1000   | A-AUS / Class 1      | -                    |
| up to 50                           | 1000   | -                    | A-AUS / Class 1      |
| up to 50                           | 5000   | Airline *            | -                    |
| up to 100                          | 5000   | -                    | A-2                  |
| up to 100                          | 10000  | -                    | A-3                  |
| 100+                               |  | -                    | Airline**            |

\* - Continuous Flow

\*\* - Continuous-flow or positive pressure demand.

A(All classes) = Organic vapours, B AUS or B1 = Acid gases, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 deg C)

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

| Appearance                                   | Text          |   |               |
|--|---------------|---|---------------|
| Physical state                               | Liquid        | Relative density (Water = 1)            | Not Available |
| Odour  | Not Available | Partition coefficient n-octanol / water | Not Available |
| Odour threshold                              | Not Available | Auto-ignition temperature (°C)          | Not Available |
| pH (as supplied)                             | Not Available | Decomposition temperature               | Not Available |
| Melting point / freezing point (°C)          | Not Available | Viscosity (cSt)                         | Not Available |
| Initial boiling point and boiling range (°C) | Not Available | Molecular weight (g/mol)                | Not Available |
| Flash point (°C)                             | Not Available | Taste                                   | Not Available |
| Evaporation rate                             | Not Available | Explosive properties                    | Not Available |
| Flammability                                 | Not Available | Oxidising properties                    | Not Available |
| Upper Explosive Limit (%)                    | Not Available | Surface Tension (dyn/cm or mN/m)        | Not Available |
| Lower Explosive Limit (%)                    | Not Available | Volatile Component (%vol)               | Not Available |
| Vapour pressure (kPa)                        | Not Available | Gas group                               | Not Available |
| Solubility in water (g/L)                    | Immiscible    | pH as a solution (1%)                   | Not Available |
| Vapour density (Air = 1)                     | Not Available | VOC g/L                                 | Not Available |

**SECTION 10 STABILITY AND REACTIVITY**

|                                    |  |
|------------------------------------|--|
| Reactivity                         | See section 7  |
| Chemical stability                 | <ul style="list-style-type: none"> <li>▶ Unstable in the presence of incompatible materials.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul> |
| Possibility of hazardous reactions | See section 7  |
| Conditions to avoid                | See section 7  |
| Incompatible materials             | See section 7  |
| Hazardous decomposition products   | See section 5  |

**SECTION 11 TOXICOLOGICAL INFORMATION****Information on toxicological effects**

|                               |   |          |            |
|-------------------------------|---|----------|------------|
| Inhaled                       | The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Headache, fatigue, tiredness, irritability and digestive disturbances (nausea, loss of appetite and bloating) are the most common symptoms of xylene overexposure. Injury to the heart, liver, kidneys and nervous system has also been noted amongst workers. Xylene is a central nervous system depressant                            |          |            |
| Ingestion                     | Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733)<br>The material has <b>NOT</b> been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.  |          |            |
| Skin Contact                  | Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.<br>There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.<br>Open cuts, abraded or irritated skin should not be exposed to this material<br>Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected. |          |            |
| Eye                           | Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).  |          |            |
| Chronic                       | There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment.<br>Repeated application of mildly hydrotreated oils (principally paraffinic), to mouse skin, induced skin tumours; no tumours were induced with severely hydrotreated oils.<br>Women exposed to xylene in the first 3 months of pregnancy showed a slightly increased risk of miscarriage and birth defects. Evaluation of workers chronically exposed to xylene has demonstrated lack of genetic toxicity.  |          |            |
| RustPlate Primer-White F92700 | <table border="1"> <tr> <td>TOXICITY</td> <td>IRRITATION</td> </tr> </table>  | TOXICITY | IRRITATION |
| TOXICITY                      | IRRITATION  |          |            |

Continued...



|   |   |  |
|---|---|--|
|   | Not Available   | Not Available  |
| nepheline                                   | TOXICITY  | IRRITATION   |
|   | Not Available   | Not Available  |
| distillates, petroleum, light, hydrotreated | TOXICITY  | IRRITATION   |
|   | Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>      | Not Available  |
|   | Oral (rat) LD50: >5000 mg/kg <sup>[1]</sup>           |  |
| xylene                                      | TOXICITY  | IRRITATION   |
|   | Dermal (rabbit) LD50: >1700 mg/kg <sup>[2]</sup>      | Eye (human): 200 ppm irritant                                  |
|   | Inhalation (rat) LC50: 5000 ppm/4hr <sup>[2]</sup>    | Eye (rabbit): 5 mg/24h SEVERE                                  |
|   | Oral (rat) LD50: 4300 mg/kg <sup>[2]</sup>            | Eye (rabbit): 87 mg mild<br>Skin (rabbit): 500 mg/24h moderate |
| ethylbenzene                                | TOXICITY  | IRRITATION   |
|   | Dermal (rabbit) LD50: ca.15432.6 mg/kg <sup>[1]</sup> | Eye (rabbit): 500 mg - SEVERE                                  |
|   | Inhalation (mouse) LC50: 35.5 mg/L/2hr <sup>[2]</sup> | Skin (rabbit): 15 mg/24h mild                                  |
|   | Inhalation (rat) LC50: 55 mg/L/2hr <sup>[2]</sup>     |  |
|   | Oral (rat) LD50: 3500 mg/kg <sup>[2]</sup>            |  |
| silica crystalline - quartz                 | TOXICITY  | IRRITATION   |
|   | Not Available   | Not Available  |
| Non-hazardous ingredient                    | TOXICITY  | IRRITATION   |
|   | Not Available   | Not Available  |
| solvent naphtha petroleum, medium aliphatic | TOXICITY  | IRRITATION   |
|   | dermal (rat) LD50: 28000 mg/kg <sup>[2]</sup>         | Not Available  |
|   | Oral (rat) LD50: >19650 mg/kg <sup>[2]</sup>          |  |
| calcium carbonate                           | TOXICITY  | IRRITATION   |
|   | dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>         | Eye (rabbit): 0.75 mg/24h - SEVERE                             |
|   | Oral (rat) LD50: >2000 mg/kg <sup>[1]</sup>           | Skin (rabbit): 500 mg/24h-moderate                             |
| aromatic 150                                | TOXICITY  | IRRITATION   |
|   | Dermal (rabbit) LD50: >1900 mg/kg <sup>[1]</sup>      | Not Available  |
|   | dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>         |  |
|   | Inhalation (rat) LC50: >0.59 mg/L/4hr <sup>[2]</sup>  |  |
|   | Inhalation (rat) LC50: >3670 ppm/8 h <sup>-[2]</sup>  |  |
|   | Oral (rat) LD50: >2000 mg/kg <sup>[1]</sup>           |  |
|   | Oral (rat) LD50: >4500 mg/kg <sup>[1]</sup>           |  |
| 4-chlorobenzotrifluoride                    | TOXICITY  | IRRITATION   |
|   | Oral (rat) LD50: 13000 mg/kg <sup>[2]</sup>           | Not Available  |
| white spirit                                | TOXICITY  | IRRITATION   |
|   | Inhalation (rat) LC50: >1400 ppm/8hr <sup>[2]</sup>   | Eye (human): 470 ppm/15m<br>Eye (rabbit): 500 mg/24h moderate  |
|   |   |  |

|                 |  |                                |
|-----------------|--|--------------------------------|
| methyl silicate | TOXICITY   | IRRITATION                     |
|                 | Dermal (rabbit) LD50: 17394.4 mg/kg <sup>[2]</sup> | Eye (rabbit); 0.25 mg (open) - |
|                 | Oral (mammal) LD50: 1000 mg/kg <sup>[2]</sup>      |                                |

**Legend:** 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.\* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

|   |  |
|---|--|
| NEPHELINE   | No data available No data available  |
| DISTILLATES, PETROLEUM, LIGHT, HYDROTREATED                                   | Kerosene may produce varying ranges of skin irritation, and a reversible eye irritation (if eyes are washed). Skin may be cracked or flaky and/or leathery, with crusts and/or hair loss. It may worsen skin cancers.<br>No significant acute toxicological data identified in literature search.  |
| XYLENE  | Reproductive effector in rats  |
| ETHYLBENZENE  | Ethylbenzene is readily absorbed when inhaled, swallowed or in contact with the skin. It is distributed throughout the body, and passed out through urine. It may irritate the skin, eyes and may cause hearing loss if exposed to high doses.<br><b>NOTE:</b> Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.<br><b>WARNING:</b> This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.<br>Liver changes, uterine tract, effects on fertility, foetotoxicity, specific developmental abnormalities (musculoskeletal system) recorded. |
| SILICA CRYSTALLINE - QUARTZ   | <b>WARNING:</b> For inhalation exposure <b>ONLY:</b> This substance has been classified by the IARC as Group 1: <b>CARCINOGENIC TO HUMANS</b><br>The International Agency for Research on Cancer (IARC) has classified occupational exposures to <b>respirable</b> (<5 µm) crystalline silica as being carcinogenic to humans. This classification is based on what IARC considered sufficient evidence from epidemiological studies of humans for the carcinogenicity of inhaled silica in the forms of quartz and cristobalite. Crystalline silica is also known to cause silicosis, a non-cancerous lung disease.   |
| SOLVENT NAPHTHA PETROLEUM, MEDIUM ALIPHATIC                                   | Studies indicate that normal, branched and cyclic paraffins are absorbed from the mammalian gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length, with little absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffins may be absorbed to a greater extent than iso- or cyclo-paraffins.<br>The major classes of hydrocarbons have been shown to be well absorbed by the gastrointestinal tract in various species.<br>for full range naphthas  |
| CALCIUM CARBONATE   | No evidence of carcinogenic properties. No evidence of mutagenic or teratogenic effects.   |
| 4-CHLOROBENZOTRIFLUORIDE  | Medium to long term exposure to chlorobenzotrifluoride may produce increase in weight of the liver, kidney, and thyroid gland at high doses. Only limited reproductive effects were noted, and no gene alteration effects. There was also no evidence of cancer-causing potential.   |
| WHITE SPIRIT  | white spirit, as CAS RN 8052-41-3  |
| XYLENE & ETHYLBENZENE & CALCIUM CARBONATE & METHYL SILICATE                   | The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.   |
| XYLENE & ETHYLBENZENE & CALCIUM CARBONATE                                     | The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.   |
| XYLENE & SOLVENT NAPHTHA PETROLEUM, MEDIUM ALIPHATIC                          | The substance is classified by IARC as Group 3:<br><b>NOT</b> classifiable as to its carcinogenicity to humans.<br>Evidence of carcinogenicity may be inadequate or limited in animal testing.   |
| SOLVENT NAPHTHA PETROLEUM, MEDIUM ALIPHATIC & AROMATIC 150 & WHITE SPIRIT     | <b>for petroleum:</b><br>This product contains benzene which is known to cause acute myeloid leukaemia and n-hexane which has been shown to metabolize to compounds which are neuropathic.<br>This product contains toluene. There are indications from animal studies that prolonged exposure to high concentrations of toluene may lead to hearing loss.   |
| CALCIUM CARBONATE & AROMATIC 150 & 4-CHLOROBENZOTRIFLUORIDE & METHYL SILICATE | Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant.   |

|                                   |   |                          |   |
|-----------------------------------|---|--------------------------|---|
| Acute Toxicity                    | ☒ | Carcinogenicity          | ✔ |
| Skin Irritation/Corrosion         | ☒ | Reproductivity           | ☒ |
| Serious Eye Damage/Irritation     | ☒ | STOT - Single Exposure   | ☒ |
| Respiratory or Skin sensitisation | ☒ | STOT - Repeated Exposure | ☒ |
| Mutagenicity                      | ☒ | Aspiration Hazard        | ✔ |

**Legend:** ✘ – Data available but does not fill the criteria for classification  
✔ – Data available to make classification  
☒ – Data Not Available to make classification

## SECTION 12 ECOLOGICAL INFORMATION

### Toxicity

| Ingredient                                  | Endpoint | Test Duration (hr) | Species | Value   | Source |
|---|----------|--------------------|---------|---------|--------|
| distillates, petroleum, light, hydrotreated | LC50     | 96                 | Fish    | 2.2mg/L | 4      |
| distillates, petroleum, light, hydrotreated | NOEC     | 3072               | Fish    | =1mg/L  | 1      |

Continued...

|   |      |     |                               |            |   |
|---|------|-----|-------------------------------|------------|---|
| xylene                                      | LC50 | 96  | Fish                          | 2.6mg/L    | 2 |
| xylene                                      | EC50 | 48  | Crustacea                     | >3.4mg/L   | 2 |
| xylene                                      | EC50 | 72  | Algae or other aquatic plants | 4.6mg/L    | 2 |
| xylene                                      | EC50 | 24  | Crustacea                     | 0.711mg/L  | 4 |
| xylene                                      | NOEC | 73  | Algae or other aquatic plants | 0.44mg/L   | 2 |
| ethylbenzene                                | LC50 | 96  | Fish                          | 0.0043mg/L | 4 |
| ethylbenzene                                | EC50 | 48  | Crustacea                     | 1.184mg/L  | 4 |
| ethylbenzene                                | EC50 | 96  | Algae or other aquatic plants | 3.6mg/L    | 2 |
| ethylbenzene                                | EC50 | 96  | Crustacea                     | =0.49mg/L  | 1 |
| ethylbenzene                                | NOEC | 168 | Crustacea                     | 0.96mg/L   | 5 |
| solvent naphtha petroleum, medium aliphatic | EC50 | 48  | Crustacea                     | >100mg/L   | 1 |
| solvent naphtha petroleum, medium aliphatic | EC50 | 96  | Algae or other aquatic plants | =450mg/L   | 1 |
| calcium carbonate                           | LC50 | 96  | Fish                          | >56000mg/L | 4 |
| calcium carbonate                           | EC50 | 72  | Algae or other aquatic plants | >14mg/L    | 2 |
| calcium carbonate                           | NOEC | 72  | Algae or other aquatic plants | 14mg/L     | 2 |
| aromatic 150                                | LC50 | 96  | Fish                          | 0.58mg/L   | 2 |
| aromatic 150                                | EC50 | 48  | Crustacea                     | 0.76mg/L   | 2 |
| aromatic 150                                | EC50 | 72  | Algae or other aquatic plants | <1mg/L     | 1 |
| aromatic 150                                | EC50 | 48  | Crustacea                     | =0.95mg/L  | 1 |
| aromatic 150                                | NOEC | 72  | Algae or other aquatic plants | 0.3mg/L    | 2 |
| aromatic 150                                | EC50 | 48  | Crustacea                     | =6.14mg/L  | 1 |
| aromatic 150                                | EC50 | 72  | Algae or other aquatic plants | 3.29mg/L   | 1 |
| aromatic 150                                | EC10 | 72  | Algae or other aquatic plants | 1.13mg/L   | 1 |
| aromatic 150                                | NOEC | 72  | Algae or other aquatic plants | =1mg/L     | 1 |
| 4-chlorobenzotrifluoride                    | LC50 | 96  | Fish                          | 2.083mg/L  | 3 |
| 4-chlorobenzotrifluoride                    | EC50 | 48  | Crustacea                     | =3.68mg/L  | 1 |
| 4-chlorobenzotrifluoride                    | EC50 | 72  | Algae or other aquatic plants | >0.41mg/L  | 2 |
| 4-chlorobenzotrifluoride                    | EC50 | 72  | Algae or other aquatic plants | >0.41mg/L  | 2 |
| 4-chlorobenzotrifluoride                    | NOEC | 504 | Crustacea                     | =0.03mg/L  | 1 |
| methyl silicate                             | LC50 | 96  | Fish                          | >245mg/L   | 2 |
| methyl silicate                             | EC50 | 48  | Crustacea                     | >75mg/L    | 2 |
| methyl silicate                             | EC50 | 96  | Algae or other aquatic plants | <1.000mg/L | 3 |
| methyl silicate                             | EC50 | 72  | Algae or other aquatic plants | >22mg/L    | 2 |
| methyl silicate                             | NOEC | 72  | Algae or other aquatic plants | >=22mg/L   | 2 |

**Legend:**

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

When spilled this product may act as a typical oil, causing a film, sheen, emulsion or sludge at or beneath the surface of the body of water. The oil film on water surface may physically affect the aquatic organisms, due to the interruption of the oxygen transfer between the air and the water

Oils of any kind can cause:

- ▶ drowning of water-fowl due to lack of buoyancy, loss of insulating capacity of feathers, starvation and vulnerability to predators due to lack of mobility
- ▶ lethal effects on fish by coating gill surfaces, preventing respiration
- ▶ asphyxiation of benthic life forms when floating masses become engaged with surface debris and settle on the bottom and
- ▶ adverse aesthetic effects of fouled shoreline and beaches

In case of accidental releases on the soil, a fine film is formed on the soil, which prevents the plant respiration process and the soil particle saturation. It may cause deep water infestation.

For Aromatic Substances Series:

Environmental Fate: Large, molecularly complex polycyclic aromatic hydrocarbons, or PAHs, are persistent in the environment longer than smaller PAHs.

Atmospheric Fate: PAHs are "semi-volatile substances" which can move between the atmosphere and the Earth's surface in repeated, temperature-driven cycles of deposition and volatilization.

Terrestrial Fate: BTEX compounds have the potential to move through soil and contaminate ground water, and their vapors are highly flammable and explosive.

Ecotoxicity - Within an aromatic series, acute toxicity increases with increasing alkyl substitution on the aromatic nucleus. The order of most toxic to least in a study using grass shrimp and brown shrimp was dimethylnaphthalenes > methylnaphthalenes > naphthalenes. Anthracene is a phototoxic PAH. UV light greatly increases the toxicity of anthracene to bluegill sunfish. Biological resources in strong sunlight are at more risk than those that are not. PAHs in general are more frequently associated with chronic risks.

For Xylenes:

log Koc : 2.05-3.08; Koc : 25.4-204; Half-life (hr) air : 0.24-42; Half-life (hr) H2O surface water : 24-672; Half-life (hr) H2O ground : 336-8640; Half-life (hr) soil : 52-672; Henry's Pa m3/mol : 637-879; Henry's atm m3/mol - 7.68E-03; BOD 5 if unstated - 1.4,1%; COD - 2.56,13% ThOD - 3.125 : BCF : 23; log BCF : 1.17-2.41.

Environmental Fate: Most xylenes released to the environment will occur in the atmosphere and volatilisation is the dominant environmental fate process. Soil - Xylenes are expected to have moderate mobility in soil evaporating rapidly from soil surfaces. The extent of the degradation is expected to depend on its concentration, residence time in the soil, the nature of the soil, and whether resident microbial populations have been acclimated. Xylene can remain below the soil surface for several days and may travel through the soil profile and enter groundwater. Soil and water microbes may transform it into other, less harmful compounds, although this happens slowly. It is not clear how long xylene remains trapped deep underground in soil or groundwater, but it may be months or years.

Atmospheric Fate: Xylene evaporates quickly into the air from surface soil and water and can remain in the air for several days until it is broken down by sunlight into other less harmful chemicals.

In the ambient atmosphere, xylenes are expected to exist solely in the vapour phase. Xylenes are degraded in the atmosphere with an estimated atmospheric lifetime of about 0.5 to 2 days. Xylene

may contribute to photochemical smog formation. p-Xylene has a moderately high photochemical reactivity under smog conditions, higher than the other xylene isomers. The photooxidation of p-xylene results in the production of carbon monoxide, formaldehyde, glyoxal, methylglyoxal, 3-methylbenzyl nitrate, m-tolualdehyde, 4-nitro-3-xylene, 5-nitro-3-xylene, 2,6-dimethyl-p-benzoquinone, 2,4-dimethylphenol, 6-nitro-2,4-dimethylphenol, 2,6-dimethylphenol, and 4-nitro-2,6-dimethylphenol.

**Aquatic Fate:** p-xylene may adsorb to suspended solids and sediment in water and is expected to volatilise from water surfaces. Estimated volatilisation half-lives for a model river and model lake are 3 hours and 4 days, respectively. Measurements taken from goldfish, eels and clams indicate that bioconcentration in aquatic organisms is low. Photo-oxidation in the presence of humic acids may play an important role in the abiotic degradation of p-xylene. p-Xylene is biodegradable and has been observed to degrade in pond water however; it is unclear if it degrades in surface waters. p-Xylene has been observed to degrade in anaerobic and aerobic groundwater; however, it is known to persist for many years in groundwater, at least at sites where the concentration might have been quite high. Ecotoxicity: Xylenes are slightly toxic to fathead minnow, rainbow trout and bluegill and not acutely toxic to water fleas. For Photobacterium phosphoreum EC50 (24 h): 0.0084 mg/L. and Gammarus lacustris LC50 (48 h): 0.6 mg/L.

**DO NOT discharge into sewer or waterways.**

### Persistence and degradability

| Ingredient               | Persistence: Water/Soil     | Persistence: Air            |
|--------------------------|-----------------------------|-----------------------------|
| xylene                   | HIGH (Half-life = 360 days) | LOW (Half-life = 1.83 days) |
| ethylbenzene             | HIGH (Half-life = 228 days) | LOW (Half-life = 3.57 days) |
| 4-chlorobenzotrifluoride | HIGH                        | HIGH                        |
| methyl silicate          | HIGH                        | HIGH                        |

### Bioaccumulative potential

| Ingredient                                  | Bioaccumulation        |
|---|------------------------|
| distillates, petroleum, light, hydrotreated | LOW (BCF = 159)        |
| xylene                                      | MEDIUM (BCF = 740)     |
| ethylbenzene                                | LOW (BCF = 79.43)      |
| aromatic 150                                | LOW (BCF = 159)        |
| 4-chlorobenzotrifluoride                    | LOW (BCF = 202)        |
| methyl silicate                             | LOW (LogKOW = -1.9282) |

### Mobility in soil

| Ingredient               | Mobility          |
|--------------------------|-------------------|
| ethylbenzene             | LOW (KOC = 517.8) |
| 4-chlorobenzotrifluoride | LOW (KOC = 1912)  |
| methyl silicate          | LOW (KOC = 757.6) |

## SECTION 13 DISPOSAL CONSIDERATIONS

### Waste treatment methods

|                                     |   |
|-------------------------------------|---|
| <b>Product / Packaging disposal</b> | <ul style="list-style-type: none"> <li>▶ Containers may still present a chemical hazard/ danger when empty.</li> <li>▶ Return to supplier for reuse/ recycling if possible.</li> </ul> <p>Otherwise:</p> <ul style="list-style-type: none"> <li>▶ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.</li> <li>▶ Where possible retain label warnings and SDS and observe all notices pertaining to the product.</li> </ul> <p>Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.</p> <p>A Hierarchy of Controls seems to be common - the user should investigate:</p> <ul style="list-style-type: none"> <li>▶ Reduction</li> <li>▶ Reuse</li> <li>▶ Recycling</li> <li>▶ Disposal (if all else fails)</li> </ul> <p>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.</p> <ul style="list-style-type: none"> <li>▶ <b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>▶ Where in doubt contact the responsible authority.</li> <li>▶ Recycle wherever possible or consult manufacturer for recycling options.</li> <li>▶ Consult State Land Waste Authority for disposal.</li> <li>▶ Bury or incinerate residue at an approved site.</li> <li>▶ Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul> |
|-------------------------------------|---|

## SECTION 14 TRANSPORT INFORMATION

### Labels Required

|                         |    |
|-------------------------|----|
| <b>Marine Pollutant</b> | NO |
|-------------------------|----|

**Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Transport in bulk according to Annex II of MARPOL and the IBC code**

Not Applicable

**SECTION 15 REGULATORY INFORMATION****Safety, health and environmental regulations / legislation specific for the substance or mixture****NEPHELINE(12251-27-3) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Not Applicable

**DISTILLATES, PETROLEUM, LIGHT, HYDROTREATED(64742-47-8) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

US - Alaska Limits for Air Contaminants

US - California Permissible Exposure Limits for Chemical Contaminants

US - California Proposition 65 - Carcinogens

US - Hawaii Air Contaminant Limits

US - Idaho - Limits for Air Contaminants

US - Michigan Exposure Limits for Air Contaminants

US - Minnesota Permissible Exposure Limits (PELs)

US - Oregon Permissible Exposure Limits (Z-1)

US - Pennsylvania - Hazardous Substance List

US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants

US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants

US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants

US - Washington Permissible exposure limits of air contaminants

US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants

US ACGIH Threshold Limit Values (TLV)

US ACGIH Threshold Limit Values (TLV) - Carcinogens

US National Toxicology Program (NTP) 14th Report Part A Known to be Human Carcinogens

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Levels (PELs) - Table Z1

US Priority List for the Development of Proposition 65 Safe Harbor Levels - No Significant Risk Levels (NSRLs) for Carcinogens and Maximum Allowable Dose Levels (MADLs) for Chemicals Causing Reproductive Toxicity

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

**XYLENE(1330-20-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

US - Alaska Limits for Air Contaminants

US - California OEHHA/ARB - Acute Reference Exposure Levels and Target Organs (RELs)

US - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs (CRELs)

US - California Permissible Exposure Limits for Chemical Contaminants

US - Hawaii Air Contaminant Limits

US - Idaho - Limits for Air Contaminants

US - Massachusetts - Right To Know Listed Chemicals

US - Michigan Exposure Limits for Air Contaminants

US - Minnesota Permissible Exposure Limits (PELs)

US - Oregon Permissible Exposure Limits (Z-1)

US - Pennsylvania - Hazardous Substance List

US - Rhode Island Hazardous Substance List

US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants

US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants

US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants

US - Washington Permissible exposure limits of air contaminants

US ACGIH Threshold Limit Values (TLV)

US ACGIH Threshold Limit Values (TLV) - Carcinogens

US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)

US Clean Air Act - Hazardous Air Pollutants

US CWA (Clean Water Act) - List of Hazardous Substances

US EPA Carcinogens Listing

US EPCRA Section 313 Chemical List

US OSHA Permissible Exposure Levels (PELs) - Table Z1

US Spacecraft Maximum Allowable Concentrations (SMACs) for Airborne Contaminants

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

**ETHYLBENZENE(100-41-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

US - Alaska Limits for Air Contaminants

US - California - Proposition 65 - Priority List for the Development of MADLs for Chemicals Causing Reproductive Toxicity

US - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs (CRELs)

US - California Permissible Exposure Limits for Chemical Contaminants

US - California Proposition 65 - Carcinogens

US - California Proposition 65 - No Significant Risk Levels (NSRLs) for Carcinogens

US - Hawaii Air Contaminant Limits

US - Idaho - Limits for Air Contaminants

US - Massachusetts - Right To Know Listed Chemicals

US - Michigan Exposure Limits for Air Contaminants

US - Minnesota Permissible Exposure Limits (PELs)

US - New Jersey Right to Know - Special Health Hazard Substance List (SHHSL): Carcinogens

US - Oregon Permissible Exposure Limits (Z-1)

US - Pennsylvania - Hazardous Substance List

US - Rhode Island Hazardous Substance List

US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants

US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants

US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants

US - Washington Permissible exposure limits of air contaminants

US - Washington Toxic air pollutants and their ASIL, SQER and de minimis emission values

US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants

US ACGIH Threshold Limit Values (TLV)

US ACGIH Threshold Limit Values (TLV) - Carcinogens

US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)

US Clean Air Act - Hazardous Air Pollutants

US CWA (Clean Water Act) - List of Hazardous Substances

US CWA (Clean Water Act) - Priority Pollutants

US CWA (Clean Water Act) - Toxic Pollutants

US EPA Carcinogens Listing

US EPCRA Section 313 Chemical List

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Levels (PELs) - Table Z1

US Spacecraft Maximum Allowable Concentrations (SMACs) for Airborne Contaminants

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

**SILICA CRYSTALLINE - QUARTZ(14808-60-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

|   |  |
|---|--|
| International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs | US - Rhode Island Hazardous Substance List   |
| US - Alaska Limits for Air Contaminants   | US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants  |
| US - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs (CRELs)       | US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants  |
| US - California Permissible Exposure Limits for Chemical Contaminants                         | US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants  |
| US - California Proposition 65 - Carcinogens  | US - Washington Permissible exposure limits of air contaminants  |
| US - Hawaii Air Contaminant Limits  | US - Washington Toxic air pollutants and their ASIL, SQER and de minimis emission values   |
| US - Idaho - Limits for Air Contaminants  | US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants   |
| US - Idaho - Toxic and Hazardous Substances - Mineral Dust                                    | US - Wyoming Toxic and Hazardous Substances Table Z-3 Mineral Dusts  |
| US - Massachusetts - Right To Know Listed Chemicals   | US ACGIH Threshold Limit Values (TLV) - Carcinogens  |
| US - Michigan Exposure Limits for Air Contaminants  | US National Toxicology Program (NTP) 14th Report Part A Known to be Human Carcinogens  |
| US - Minnesota Permissible Exposure Limits (PELs)   | US NIOSH Recommended Exposure Limits (RELs)  |
| US - New Jersey Right to Know - Special Health Hazard Substance List (SHHSL): Carcinogens     | US OSHA Permissible Exposure Levels (PELs) - Table Z1  |
| US - Oregon Permissible Exposure Limits (Z-1)   | US OSHA Permissible Exposure Levels (PELs) - Table Z3  |
| US - Oregon Permissible Exposure Limits (Z-3)   | US Priority List for the Development of Proposition 65 Safe Harbor Levels - No Significant Risk Levels (NSRLs) for Carcinogens and Maximum Allowable Dose Levels (MADLs) for Chemicals Causing Reproductive Toxicity |
| US - Pennsylvania - Hazardous Substance List  | US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory  |

**NON-HAZARDOUS INGREDIENT(NOT AVAIL.) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Not Applicable

**SOLVENT NAPHTHA PETROLEUM, MEDIUM ALIPHATIC(64742-88-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

|   |  |
|---|--|
| International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs | US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants  |
| US - Alaska Limits for Air Contaminants   | US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants  |
| US - California Permissible Exposure Limits for Chemical Contaminants                         | US - Washington Permissible exposure limits of air contaminants  |
| US - California Proposition 65 - Carcinogens  | US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants   |
| US - Hawaii Air Contaminant Limits  | US ACGIH Threshold Limit Values (TLV)  |
| US - Idaho - Limits for Air Contaminants  | US ACGIH Threshold Limit Values (TLV) - Carcinogens  |
| US - Michigan Exposure Limits for Air Contaminants  | US National Toxicology Program (NTP) 14th Report Part A Known to be Human Carcinogens  |
| US - Minnesota Permissible Exposure Limits (PELs)   | US NIOSH Recommended Exposure Limits (RELs)  |
| US - Oregon Permissible Exposure Limits (Z-1)   | US OSHA Permissible Exposure Levels (PELs) - Table Z1  |
| US - Pennsylvania - Hazardous Substance List  | US Priority List for the Development of Proposition 65 Safe Harbor Levels - No Significant Risk Levels (NSRLs) for Carcinogens and Maximum Allowable Dose Levels (MADLs) for Chemicals Causing Reproductive Toxicity |
| US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants                     | US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory  |

**CALCIUM CARBONATE(471-34-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

|   |   |
|---|---|
| US - Alaska Limits for Air Contaminants                               | US - Rhode Island Hazardous Substance List  |
| US - California Permissible Exposure Limits for Chemical Contaminants | US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants                     |
| US - Hawaii Air Contaminant Limits                                    | US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants   |
| US - Idaho - Limits for Air Contaminants                              | US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants |
| US - Massachusetts - Right To Know Listed Chemicals                   | US - Washington Permissible exposure limits of air contaminants                               |
| US - Michigan Exposure Limits for Air Contaminants                    | US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants              |
| US - Minnesota Permissible Exposure Limits (PELs)                     | US NIOSH Recommended Exposure Limits (RELs)   |
| US - Oregon Permissible Exposure Limits (Z-1)                         | US OSHA Permissible Exposure Levels (PELs) - Table Z1   |
| US - Pennsylvania - Hazardous Substance List                          | US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory                         |

**AROMATIC 150(64742-95-6.) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

**4-CHLOROBENZOTRIFLUORIDE(98-56-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

|                                    |   |
|------------------------------------|---|
| US - Hawaii Air Contaminant Limits | US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory |
|------------------------------------|---|

**WHITE SPIRIT(8052-41-3.) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

|   |  |
|---|--|
| International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs | US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants  |
| US - Alaska Limits for Air Contaminants   | US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants  |
| US - California Permissible Exposure Limits for Chemical Contaminants                         | US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants  |
| US - California Proposition 65 - Carcinogens  | US - Washington Permissible exposure limits of air contaminants  |
| US - Hawaii Air Contaminant Limits  | US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants   |
| US - Idaho - Limits for Air Contaminants  | US ACGIH Threshold Limit Values (TLV)  |
| US - Massachusetts - Right To Know Listed Chemicals   | US ACGIH Threshold Limit Values (TLV) - Carcinogens  |
| US - Michigan Exposure Limits for Air Contaminants  | US National Toxicology Program (NTP) 14th Report Part A Known to be Human Carcinogens  |
| US - Minnesota Permissible Exposure Limits (PELs)   | US NIOSH Recommended Exposure Limits (RELs)  |
| US - Oregon Permissible Exposure Limits (Z-1)   | US OSHA Permissible Exposure Levels (PELs) - Table Z1  |
| US - Pennsylvania - Hazardous Substance List  | US Priority List for the Development of Proposition 65 Safe Harbor Levels - No Significant Risk Levels (NSRLs) for Carcinogens and Maximum Allowable Dose Levels (MADLs) for Chemicals Causing Reproductive Toxicity |
| US - Rhode Island Hazardous Substance List  | US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory  |

**METHYL SILICATE(681-84-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

|   |   |
|---|---|
| International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft | US - Rhode Island Hazardous Substance List  |
| US - Alaska Limits for Air Contaminants   | US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants                     |
| US - California Permissible Exposure Limits for Chemical Contaminants   | US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants   |
| US - Hawaii Air Contaminant Limits  | US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants |
| US - Idaho - Limits for Air Contaminants  | US - Washington Permissible exposure limits of air contaminants                               |
| US - Massachusetts - Right To Know Listed Chemicals   | US ACGIH Threshold Limit Values (TLV)   |
| US - Michigan Exposure Limits for Air Contaminants  | US NIOSH Recommended Exposure Limits (RELs)   |
| US - Minnesota Permissible Exposure Limits (PELs)   | US OSHA Permissible Exposure Levels (PELs) - Table Z1   |
| US - Oregon Permissible Exposure Limits (Z-1)   | US OSHA Permissible Exposure Levels (PELs) - Table Z3   |
| US - Pennsylvania - Hazardous Substance List  | US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory                         |

## Federal Regulations

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### SECTION 311/312 HAZARD CATEGORIES

|                                 |     |
|---------------------------------|-----|
| Immediate (acute) health hazard | Yes |
| Delayed (chronic) health hazard | Yes |
| Fire hazard                     | No  |
| Pressure hazard                 | No  |
| Reactivity hazard               | No  |

#### US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CFR 302.4)

| Name           | Reportable Quantity in Pounds (lb) | Reportable Quantity in kg |
|----------------|------------------------------------|---------------------------|
| Xylene (mixed) | 100                                | 45.4                      |
| Ethylbenzene   | 1000                               | 454                       |

## State Regulations

### US. CALIFORNIA PROPOSITION 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm

### US - CALIFORNIA PREPOSITION 65 - CARCINOGENS & REPRODUCTIVE TOXICITY (CRT): LISTED SUBSTANCE

Soots, tars, and mineral oils (untreated and mildly treated oils and used engine oils), Ethylbenzene, Silica, crystalline (airborne particles of respirable size) Listed

| National Inventory            | Status  |
|-------------------------------|---|
| Australia - AICS              | N (nepheline)   |
| Canada - DSL                  | Y   |
| Canada - NDSL                 | N (white spirit; xylene; ethylbenzene; methyl silicate; nepheline; silica crystalline - quartz; solvent naphtha petroleum, medium aliphatic; aromatic 150; distillates, petroleum, light, hydrotreated; 4-chlorobenzotrifluoride) |
| China - IECSC                 | Y   |
| Europe - EINEC / ELINCS / NLP | N (nepheline)   |
| Japan - ENCS                  | N (nepheline; solvent naphtha petroleum, medium aliphatic)  |
| Korea - KECI                  | Y   |
| New Zealand - NZIoC           | Y   |
| Philippines - PICCS           | Y   |
| USA - TSCA                    | N (nepheline)   |
| <b>Legend:</b>                | Y = All ingredients are on the inventory<br>N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)  |

## SECTION 16 OTHER INFORMATION

### CONTACT POINT

\*\*PLEASE NOTE THAT TITANIUM DIOXIDE IS NOT PRESENT IN CLEAR OR NEUTRAL BASES\*\*

### Other information

#### Ingredients with multiple cas numbers

| Name                        | CAS No  |
|-----------------------------|---|
| nepheline                   | 12251-27-3, 37244-96-5  |
| silica crystalline - quartz | 14808-60-7, 122304-48-7, 122304-49-8, 12425-26-2, 1317-79-9, 70594-95-5, 87347-84-0, 308075-07-2                        |
| calcium carbonate           | 471-34-1, 13397-26-7, 15634-14-7, 1317-65-3, 72608-12-9, 878759-26-3, 63660-97-9, 459411-10-0, 198352-33-9, 146358-95-4 |
| aromatic 150                | 64742-95-6., 64742-94-5   |

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

**Definitions and abbreviations**

PC—TWA: Permissible Concentration-Time Weighted Average  
PC—STEL: Permissible Concentration-Short Term Exposure Limit  
IARC: International Agency for Research on Cancer  
ACGIH: American Conference of Governmental Industrial Hygienists  
STEL: Short Term Exposure Limit  
TEEL: Temporary Emergency Exposure Limit,  
IDLH: Immediately Dangerous to Life or Health Concentrations  
OSF: Odour Safety Factor  
NOAEL :No Observed Adverse Effect Level  
LOAEL: Lowest Observed Adverse Effect Level  
TLV: Threshold Limit Value  
LOD: Limit Of Detection  
OTV: Odour Threshold Value  
BCF: BioConcentration Factors  
BEI: Biological Exposure Index

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