SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : VE-70SR-FLAKE
Product code : VE-70SR-FLAKE
Other means of identification : VE-70SR-FLAKE/29, VE-70SR-FLAKE/5SF

1.2. Relevant identified uses of the substance or mixture and uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Protective Industrial Polymers
7875 Bliss Parkway
North Ridgeville, Ohio 44039 - USA-Ohio
T 440-327-0015
www.protectpoly.com

1.4. Emergency telephone number

Emergency number : Chemtrec: 800-427-9300 (Outside USA) 703-527-3887

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification
Flammable liquids, Category 3 H226
Acute toxicity (oral), Category 4 H302
Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 2A H319
Carcinogenicity, Category 2 H351
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation H335

Full text of H statements : see section 16

2.2. Label elements

GHS-US labelling
Hazard pictograms (GHS-US) :

Signal word (GHS-US) : Warning
Contains : cobalt(II) ethylhexanoate; Styrene; Methacrylic Acid
Hazard statements (GHS-US) :
H226 - Flammable liquid and vapour
H302 - Harmful if swallowed
H315 - Causes skin irritation
H319 - Causes eye irritation
H335 - May cause respiratory irritation
H351 - Suspected of causing cancer

Precautionary statements (GHS-US) :
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P210 - Keep away from sparks. - No smoking
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P261 - Avoid breathing vapours
P264 - Wash hands, forearms and face thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear protective clothing
P301+P312 - If swallowed: Call a POISON CENTER if you feel unwell
P302+P352 - If on skin: Wash with plenty of soap
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

2.3. Other hazards
No additional information available

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance
Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiber Glass Wool</td>
<td>(CAS No) 65997-17-3</td>
<td>25 - 35</td>
<td>Not classified</td>
</tr>
</tbody>
</table>
| Styrene                             | (CAS No) 100-42-5  | 19 - 25 | Flam. Liq. 3, H226  
|                                     |                   |       | Acute Tox. 4 (Oral), H302  
|                                     |                   |       | Skin Irrit. 2, H315        |
|                                     |                   |       | Eye Irrit. 2A, H319         |
|                                     |                   |       | STOT SE 3, H335             |
|                                     |                   |       | Asp. Tox. 1, H304           |
| Dimethyl silicone polymer with silica| (CAS No) 67762-90-7 | 0 - 5 | Not classified             |
| 4-tert-butylbenzene-1,2-diol        | (CAS No) 98-29-3  | 0 - 3 | Not classified             |
| cobalt(II) ethylhexanoate           | (CAS No) 136-52-7 | 0 - 1 | Carc. 2, H351               |
| Methacrylic Acid                    | (CAS No) 79-41-4  | 0 - 1 | Flam. Liq. 4, H227         |
|                                     |                   |       | Acute Tox. 4 (Oral), H302   |
|                                     |                   |       | Acute Tox. 3 (Dermal), H311 |
| Propane-1,2,3-triol                 | (CAS No) 56-81-5  | 0 - 0.5 | Not classified             |

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures
First-aid measures general : IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion: Rinse mouth. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/injuries after inhalation: May cause respiratory irritation.
Symptoms/injuries after skin contact: Irritation.
Symptoms/injuries after eye contact: Eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically.
**SECTION 5: Firefighting measures**

5.1. Extinguishing media


5.2. Special hazards arising from the substance or mixture

Fire hazard: Highly flammable liquid and vapour.
Reactivity: Highly flammable liquid and vapour.

5.3. Advice for firefighters

Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

**SECTION 6: Accidental release measures**

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures: Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing vapours. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

**SECTION 7: Handling and storage**

7.1. Precautions for safe handling

Precautions for safe handling: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Avoid breathing vapours. Avoid contact with skin and eyes.

Hygiene measures: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Ground/bond container and receiving equipment.

Storage conditions: Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

**SECTION 8: Exposure controls/personal protection**

8.1. Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>ACGIH</th>
<th>Remark (ACGIH)</th>
<th>URT ir</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cobalt(II) ethylhexanoate (136-52-7)</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-tert-butylbenzene-1,2-diol (98-29-3)</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Propane-1,2,3-triol (56-61-5)</td>
<td>ACGIH</td>
<td></td>
<td>URT ir</td>
</tr>
<tr>
<td>Dimethyl silicone polymer with silica (67762-90-7)</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Fiber Glass Wool (65997-17-3)

<table>
<thead>
<tr>
<th></th>
<th>ACGIH TWA (mg/m³)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>1 fibers/cm³ (Synthetic Vitreous Fib. continuous filament glass fibers; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Respirable fibers: length &gt; 5 μm; aspect ratio ≥ 3:1, as determined by the membrane filter method at 400-450X magnification (4-mm objective), using phase-contrast illumination; Synthetic Vitreous Fib., Glass wool fibers; 1 fibers/cm³; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Respirable fibers: length &gt; 5 μm; aspect ratio ≥ 3:1, as determined by the membrane filter method at 400-450X magnification (4-mm objective), using phase-contrast illumination; Synthetic Vitreous Fib. continuous filament glass fibers; 5 mg/m³; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Inhalable fraction)</td>
<td></td>
</tr>
</tbody>
</table>

**Not applicable**

### Styrene (100-42-5)

<table>
<thead>
<tr>
<th></th>
<th>ACGIH TWA (ppm)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>20 ppm (Styrene, monomer; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)</td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>40 ppm (Styrene, monomer; USA; Short time value; TLV - Adopted Value)</td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>CNS impair; URT irr; peripheral</td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td>(2) See Table Z-2.</td>
<td></td>
</tr>
</tbody>
</table>

### Methacrylic Acid (79-41-4)

<table>
<thead>
<tr>
<th></th>
<th>ACGIH TWA (ppm)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>20 ppm (Methacrylic acid; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)</td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>Skin &amp; eye irr</td>
<td></td>
</tr>
</tbody>
</table>

#### 8.2. Exposure controls

- **Appropriate engineering controls**: Ensure good ventilation of the work station.
- **Hand protection**: Protective gloves.
- **Eye protection**: Safety glasses.
- **Skin and body protection**: Wear suitable protective clothing.
- **Respiratory protection**: In case of insufficient ventilation, wear suitable respiratory equipment.
- **Environmental exposure controls**: Avoid release to the environment.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

- **Physical state**: Liquid
- **Colour**: Black
- **Odour**: Styrene characteristic
- **Odour threshold**: No data available
- **pH**: No data available
- **Melting point**: Not applicable
- **Freezing point**: No data available
- **Boiling point**: ~293 °F
- **Flash point**: ~82 °F
- **Relative evaporation rate (butylacetate=1)**: No data available
- **Flammability (solid, gas)**: No data available
- **Explosive limits**: No data available
- **Explosive properties**: No data available
- **Oxidising properties**: No data available
- **Vapour pressure**: No data available
- **Relative density**: No data available
- **Relative vapour density at 20 °C**: No data available
Solubility : Water: Solubility in water of component(s) of the mixture:
- N,N-dimethylaniline: 0.12 g/100ml (20 °C)
- cobalt(II) ethylhexanoate: 4.03 g/100ml (20 °C)
- Stoddard solvent: insoluble
- 1,2-Benzenedioli: 45 g/100ml
- Methyl Hydroxide: >= 100 g/100ml (20 °C)
- Propane-1,2,3-triol: 100 g/100ml (25 °C, Complete)
- N-propyl trimethoxy silane: < 0.1 g/100ml
- Fiber Glass Wool: insoluble
- Styrene: 0.030 g/100ml
- Methacrylic Acid: 9.8 g/100ml (20 °C)

Log Pow : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

VE-70SR-FLAKE

ATE US (oral) 1820.651 mg/kg bodyweight

**cobalt(II) ethylhexanoate (136-52-7)**

LD50 oral rat 3129 mg/kg bodyweight (Rat; OECD 425: Acute Oral Toxicity: Up-and-Down Procedure; Experimental value)
LD50 dermal rat > 2000 mg/kg bodyweight (Rat; Weight of evidence; OECD 402: Acute Dermal Toxicity)
ATE US (oral) 3129.000 mg/kg bodyweight

**Propane-1,2,3-triol (56-81-5)**

LD50 oral rat 27200 mg/kg (Rat; Experimental value)
LC50 inhalation rat (mg/l) > 2.75 mg/l/4h (Rat; Experimental value)
ATE US (oral) 27200.000 mg/kg bodyweight

**Styrene (100-42-5)**

LD50 oral rat 5000 mg/kg (Rat; Literature study; >6000 mg/kg bodyweight; Rat; Weight of evidence)
LD50 dermal rat 2820 mg/kg (Rat; Literature study; OECD 402: Acute Dermal Toxicity; >2000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit 5010 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l) 12 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm) 2770 ppm/4h (Rat; Literature study)
ATE US (oral) 500.000 mg/kg bodyweight
ATE US (dermal) 2820.000 mg/kg bodyweight
ATE US (gases) 2770.000 ppmv/4h
**VE-70SR-FLAKE**  
Safety Data Sheet  
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<table>
<thead>
<tr>
<th><strong>Styrene (100-42-5)</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE US (vapours)</td>
<td>12,000 mg/l/4h</td>
</tr>
<tr>
<td>ATE US (dust,mist)</td>
<td>12,000 mg/l/4h</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Methacrylic Acid (79-41-4)</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>1060 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value; 1320 mg/kg bodyweight; Rat)</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>500 mg/kg bodyweight (Rabbit; Experimental value; Other; 500-1000 mg/kg bodyweight; Rabbit)</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>7 mg/l/4h (Rat)</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>1060.000 mg/kg bodyweight</td>
</tr>
<tr>
<td>ATE US (dermal)</td>
<td>500.000 mg/kg bodyweight</td>
</tr>
<tr>
<td>ATE US (vapours)</td>
<td>7.000 mg/l/4h</td>
</tr>
<tr>
<td>ATE US (dust,mist)</td>
<td>7.000 mg/l/4h</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/irritation: Causes serious eye irritation.
Respiratory or skin sensitisation: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: Suspected of causing cancer.

**cobalt(II) ethylhexanoate (136-52-7)**

IARC group: 2B - Possibly carcinogenic to humans

**Fiber Glass Wool (65997-17-3)**

IARC group: 3 - Not classifiable

**Styrene (100-42-5)**

IARC group: 2B - Possibly carcinogenic to humans

National Toxicology Program (NTP) Status: 3 - Reasonably anticipated to be Human Carcinogen

Reproductive toxicity: Not classified
Specific target organ toxicity (single exposure): May cause respiratory irritation.
Specific target organ toxicity (repeated exposure): Not classified

Aspiration hazard: Not classified
Symptoms/injuries after inhalation: May cause respiratory irritation.
Symptoms/injuries after skin contact: Irritation.
Symptoms/injuries after eye contact: Eye irritation.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

**cobalt(II) ethylhexanoate (136-52-7)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>46.51 mg/l (LOEC; ASTM; 96 h; Pimephales promelas; Flow-through system; Fresh water; Read-across)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>0.212 mg/l (NOEC; ASTM; 48 h; Ceriodaphnia dubia; Static system; Salt water; Read-across)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>54.1 mg/l (LC50; ASTM; 96 h; Pimephales promelas; Flow-through system; Fresh water; Read-across)</td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>0.685 mg/l (LC50; ASTM; 48 h; Ceriodaphnia dubia; Static system; Salt water; Read-across)</td>
</tr>
<tr>
<td>Threshold limit algae 1</td>
<td>144 μg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Read-across)</td>
</tr>
<tr>
<td>Threshold limit algae 2</td>
<td>32.2 μg/l (NOEC; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Read-across)</td>
</tr>
</tbody>
</table>
### VE-70SR-FLAKE

**Safety Data Sheet**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

#### Propane-1,2,3-triol (56-81-5)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>54000 mg/l (LC50; 96 h; Salmo gairdneri; Static system; Fresh water)</td>
<td></td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>&gt; 10000 mg/l (EC50; 24 h; Daphnia magna; Static system; Fresh water)</td>
<td></td>
</tr>
<tr>
<td>Threshold limit algae 1</td>
<td>&gt; 10000 mg/l (EC0; 8 days; Scenedesmus quadricauda; Static system; Fresh water)</td>
<td></td>
</tr>
</tbody>
</table>

#### Methacrylic Acid (79-41-4)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 2</td>
<td>85 mg/l (LC50; EPA OTS 797.1400; 96 h; Salmo gairdneri; Flow-through system; Fresh water; Experimental value)</td>
<td></td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>&gt; 130 mg/l (EC50; EPA OTS 797.1300; 48 h; Daphnia magna; Flow-through system; Fresh water; Experimental value)</td>
<td></td>
</tr>
<tr>
<td>Threshold limit algae 1</td>
<td>45 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Selenastrum capricornutum; Static system; Fresh water; Experimental value)</td>
<td></td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability

**cobalt(II) ethylhexanoate (136-52-7)**

- Persistence and degradability: Readily biodegradable in water. No (test) data on mobility of the substance available.

**Propane-1,2,3-triol (56-81-5)**

- Persistence and degradability: Readily biodegradable in water.
- Biochemical oxygen demand (BOD): 0.87 g O₂/g substance
- Chemical oxygen demand (COD): 1.16 g O₂/g substance
- ThOD: 1.217 g O₂/g substance
- BOD (% of ThOD): 0.71

**Fiber Glass Wool (65997-17-3)**

- Persistence and degradability: Biodegradability: not applicable.
- Biochemical oxygen demand (BOD): Not applicable
- Chemical oxygen demand (COD): Not applicable
- ThOD: Not applicable

**Styrene (100-42-5)**

- Chemical oxygen demand (COD): 2.80 g O₂/g substance
- ThOD: 3.07 g O₂/g substance
- BOD (% of ThOD): 0.42

**Methacrylic Acid (79-41-4)**

- Persistence and degradability: Readily biodegradable in water. Low potential for adsorption in soil. Photodegradation in the air.
- Biochemical oxygen demand (BOD): 0.89 g O₂/g substance
- ThOD: 1.67 g O₂/g substance
- BOD (% of ThOD): 0.5329 (Calculated value)

#### 12.3. Bioaccumulative potential

**VE-70SR-FLAKE**

- Bioaccumulative potential: No test data available.

**cobalt(II) ethylhexanoate (136-52-7)**

- BCF fish 1: 1.2 (BCF; 131 days; Seriola quinqueradiata; Static system; Salt water; Read-across)
- Bioaccumulative potential: Low potential for bioaccumulation (BCF < 500).

**Propane-1,2,3-triol (56-81-5)**

- Log Pow: -1.75 (Experimental value; Equivalent or similar to OECD 107)
- Bioaccumulative potential: Bioaccumulation: not applicable.

**Fiber Glass Wool (65997-17-3)**

- Bioaccumulative potential: No bioaccumulation data available.
VE-70SR-FLAKE
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Styrene (100-42-5)</strong></td>
<td></td>
</tr>
<tr>
<td>BCF fish 1</td>
<td>35.5 (BCF)</td>
</tr>
<tr>
<td>Log Pow</td>
<td>2.96 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 25 °C)</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Low potential for bioaccumulation (BCF &lt; 500).</td>
</tr>
<tr>
<td><strong>Methacrylic Acid (79-41-4)</strong></td>
<td></td>
</tr>
<tr>
<td>BCF other aquatic organisms 1</td>
<td>3 (BCF)</td>
</tr>
<tr>
<td>Log Pow</td>
<td>0.93 (Experimental value; 22 °C)</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Low potential for bioaccumulation (Log Kow &lt; 4).</td>
</tr>
</tbody>
</table>

**12.4. Mobility in soil**

<table>
<thead>
<tr>
<th>Material</th>
<th>Surface tension</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>cobalt(II) ethylhexanoate (136-52-7)</td>
<td>0.064 N/m (20 °C; 1 g/l)</td>
<td></td>
</tr>
<tr>
<td>Propane-1,2,3-triol (56-81-5)</td>
<td>0.0634 N/m (20 °C; 1000 g/l)</td>
<td></td>
</tr>
<tr>
<td><strong>Styrene (100-42-5)</strong></td>
<td>0.032 N/m (19 °C)</td>
<td></td>
</tr>
<tr>
<td><strong>Methacrylic Acid (79-41-4)</strong></td>
<td>0.0659 N/m (20 °C; 1.01 g/l)</td>
<td></td>
</tr>
</tbody>
</table>

**12.5. Other adverse effects**

Effect on the global warming: No known ecological damage caused by this product.

**SECTION 13: disposal considerations**

**13.1. Waste treatment methods**

Waste treatment methods: Dispose of contents/container in accordance with licensed collector's sorting instructions.

Additional information: Flammable vapours may accumulate in the container.

**SECTION 14: Transport information**

**Department of Transportation (DOT)**

In accordance with DOT

Transport document description: UN1866 Resin solution (flammable), 3, III

UN-No.(DOT): UN1866

Proper Shipping Name (DOT): Resin solution flammable

Class (DOT): 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Hazard labels (DOT): 3 - Flammable liquid

Packing group (DOT): III - Minor Danger

DOT Packaging Non Bulk (49 CFR 173.xxx): 173

DOT Packaging Bulk (49 CFR 173.xxx): 242
VE-70SR-FLAKE
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

DOT Special Provisions (49 CFR 172.102)
- B1: If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.
- B52: Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.
- IB3: Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
- T2: 1.5 178.274(d)(2) Normal............. 178.275(d)(3)
- TP1: The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / (1 + a (tr - tf)) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

DOT Packaging Exceptions (49 CFR 173.xxx)
- 150

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)
- 60 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)
- 220 L

DOT Vessel Stowage Location
- A: The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel.

Emergency Response Guide (ERG) Number
- 127

Other information
- No supplementary information available.

TDG
- No additional information available

Transport by sea
- No additional information available

Air transport
- No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

VE-70SR-FLAKE
- Listed on the United States TSCA (Toxic Substances Control Act) inventory

SARA Section 311/312 Hazard Classes
- Fire hazard
- Immediate (acute) health hazard
- Delayed (chronic) health hazard

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS No</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Styrene</td>
<td>100-42-5</td>
<td>15 - 25%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS No</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>cobalt(II) ethylhexanoate</td>
<td>136-52-7</td>
<td></td>
</tr>
<tr>
<td>4-tert-butylbenzene-1,2-diol</td>
<td>98-29-3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS No</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane-1,2,3-triol</td>
<td>56-81-5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS No</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethyl silicone polymer with silica</td>
<td>67762-90-7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS No</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiber Glass Wool</td>
<td>65997-17-3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS No</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Styrene</td>
<td>100-42-5</td>
<td></td>
</tr>
</tbody>
</table>

CERCLA RQ
- 1000 lb
VE-70SR-FLAKE
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Methacrylic Acid (79-41-4)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA
VE-70SR-FLAKE
WHMIS Classification

| Class B Division 2 - Flammable Liquid |
| Class D Division 2 Subdivision B - Toxic material causing other toxic effects |

EU-Regulations
No additional information available

National regulations

Styrene (100-42-5)
Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)

15.3. US State regulations

Propane-1,2,3-triol (56-81-5)
U.S. - New Jersey - Right to Know Hazardous Substance List

Styrene (100-42-5)
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Methacrylic Acid (79-41-4)
U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Other information

Disclaimer: This SDS to the best of our knowledge conforms to the requirements of OSHA 20 CFR 1910.1200 and summarizes the health and safety hazard information and general guidance on how to safely handle the material at the date of issue. Each user must review the SDS in the context of how the product will be handled and used in the workplace.

Full text of H-statements:

| H226 | Flammable liquid and vapour |
| H227 | Combustible liquid |
| H302 | Harmful if swallowed |
| H304 | May be fatal if swallowed and enters airways |
| H311 | Toxic in contact with skin |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |
| H335 | May cause respiratory irritation |
| H351 | Suspected of causing cancer |

NFPA health hazard

2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard

3 - Liquids and solids that can be ignited under almost all ambient conditions.

NFPA reactivity

2 - Normally unstable and readily undergo violent decomposition but do not detonate. Also: may react violently with water or may form potentially explosive mixtures with water.
<table>
<thead>
<tr>
<th>HMIS III Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>2 Moderate Hazard - Temporary or minor injury may occur</td>
</tr>
<tr>
<td>Flammability</td>
<td>3 Serious Hazard - Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 F and boiling points above 100 F. as well as liquids with flash points between 73 F and 100 F. (Classes IB &amp; IIC)</td>
</tr>
<tr>
<td>Physical</td>
<td>2 Moderate Hazard - Materials that are unstable and may undergo violent chemical changes at normal temperature and pressure with low risk for explosion. Materials may react violently with water or form peroxides upon exposure to air.</td>
</tr>
</tbody>
</table>

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.