

Safety Data Sheet



Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • Resin Kit Part A & C - BC-490, BC-490G, BC-490RS

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

Relevant identified use(s) • Plastic Scintillator Casting resin

1.3 Details of the supplier of the safety data sheet

Manufacturer • Saint-Gobain Crystals
17900 Great Lakes Parkway
Hiram, OH 44234
United States
www.crystals.saint-gobain.com
scintillation@saint-gobain.com

1.4 Emergency telephone number

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

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

2.1 Classification of the substance or mixture

- CLP**
- Flammable Liquids 3 - H226
 - Skin Irritation 2 - H315
 - Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335
 - Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
- DSD/DPD**
- Irritant (Xi)
 - R36/37/38, R67

2.2 Label Elements

CLP

WARNING



- Hazard statements** • H226 - Flammable liquid and vapour
H315 - Causes skin irritation
H335 - May cause respiratory irritation

H336 - May cause drowsiness or dizziness

Precautionary statements

- Prevention** • P210 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 P233 - Keep container tightly closed.
 P240 - Ground and/or bond container and receiving equipment.
 P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
 P242 - Use only non-sparking tools.
 P243 - Take precautionary measures against static discharge.
 P261 - Avoid breathing mists, vapours, and/or spray.
 P264 - Wash thoroughly after handling.
 P271 - Use only outdoors or in a well-ventilated area.
 P280 - Wear protective gloves and eye/face protection , .

- Response** • P370+P378 - In case of fire: Use appropriate media for extinction.
 P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
 P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P362 - Take off contaminated clothing and wash before reuse.
 P321 - Specific treatment, see supplemental first aid information.
 P332+P313 - If skin irritation occurs: Get medical advice/attention.

- Storage/Disposal** • P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
 P235 - Keep cool.
 P405 - Store locked up.
 P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



- Risk phrases** • R36/37/38 - Irritating to eyes, respiratory system and skin.
 R67 - Vapours may cause drowsiness and dizziness.

- Safety phrases** • S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

2.3 Other Hazards

- CLP** • According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

- DSD/DPD** • According to European Directive 1999/45/EC this material is considered dangerous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012** • Flammable Liquids 3
 Skin Irritation 2
 Eye Irritation 2
 Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
 Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects

2.2 Label elements

OSHA HCS 2012

WARNING



- Hazard statements**
- Flammable liquid and vapour
 - Causes skin irritation
 - Causes serious eye irritation
 - May cause respiratory irritation
 - May cause drowsiness or dizziness

Precautionary statements

- Prevention**
- Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 - Keep container tightly closed.
 - Ground and/or bond container and receiving equipment.
 - Use explosion-proof electrical/ventilating/lighting/equipment.
 - Use only non-sparking tools.
 - Take precautionary measures against static discharge.
 - Avoid breathing mists, vapours, and/or spray.
 - Wash thoroughly after handling.
 - Use only outdoors or in a well-ventilated area.
 - Wear protective gloves and eye/face protection , .
- Response**
- In case of fire: Use appropriate media for extinction.
 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - Call a POISON CENTER or doctor/physician if you feel unwell.
 - If on skin: Wash with plenty of water .
 - Take off contaminated clothing and wash before reuse.
 - Specific treatment, see supplemental first aid information.
 - If skin irritation occurs: Get medical advice/attention.
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - If eye irritation persists: Get medical advice/attention.
- Storage/Disposal**
- Store in a well-ventilated place. Keep container tightly closed.
 - Keep cool.
 - Store locked up.
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

OSHA HCS 2012

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

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Combustible Liquids - B3
- Other Toxic Effects - D2B

2.2 Label elements

WHMIS



WHMIS

- Combustible Liquids - B3
- Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

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

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

| Composition | | | | | |
|---------------|------------------------------------|-----------------------|---|---|----------|
| Chemical Name | Identifiers | % | LD50/LC50 | Classifications According to Regulation/Directive | Comments |
| Vinyl Toluene | CAS:25013-15-4 EINECS:246-562-2 | > 98.7274% | Ingestion/Oral-Rat LD50 • 2255 mg/kg | EU DSD/DPD: Xi; R36/37/38; R67 EU CLP: Flam. Liq. 3, H226; Skin Irrit. 2, H315; STOT SE 3: Resp. Irrit., H335; STOT SE 3: Narc., H336 OSHA HCS 2012: Flam. Liq. 3; Eye Irrit. 2; Skin Irrit 2; STOT SE 3: Resp. Irrit. & Narc. | NDA |
| Proprietary | Proprietary | 1.1178% TO 1.2284% | NDA | EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified | NDA |
| Proprietary | Proprietary | 0.0369% | Ingestion/Oral-Rat LD50 • 890 mg/kg | EU CLP: Community workplace exposure limit OSHA HCS 2012: Exposure limits | NDA |

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- IF ON SKIN: Wash with plenty of soap and water. Wash skin with soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention.

Eye

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

- Do NOT induce vomiting. Keep head below hips if vomiting occurs. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

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

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Alcohol foam, CO₂, dry chemical, protein foam or water fog.

Unsuitable Extinguishing Media • No data available

5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- **HIGHLY FLAMMABLE:** Will be easily ignited by heat, sparks or flames. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapor explosion hazard indoors, outdoors or in sewers. Vapors may travel to source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

- Hazardous Combustion Products**
- No data available

5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA). Move containers from fire area if you can do it without risk. Use water spray to cool fire-exposed containers. Structural firefighters' protective clothing will only provide limited protection. Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

- Emergency Procedures**
- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep out of low areas. Keep unauthorized personnel away. Stay upwind. Ventilate closed spaces before entering.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

- Containment/Clean-up Measures**
- Stop leak if you can do it without risk. All equipment used when handling the product must be grounded. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Do not use Zorbal. Use clean non-sparking tools to collect absorbed material. A vapor suppressing foam may be used to reduce vapors. LARGE SPILLS: Dike far ahead of liquid spill for later disposal.

6.4 Reference to other sections

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

Section 7 - Handling and Storage

7.1 Precautions for safe handling

- Handling**
- Use only in well ventilated areas. Avoid contact with heat and ignition sources. Use only non-sparking tools. Take precautionary measures against static charges. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing mist, vapors, and/or spray. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

- Storage**
- Store in a cool/low-temperature, well-ventilated place. Control temperature in storage below 90°F Keep away from heat and ignition sources. Keep container closed when not in use. Keep out of direct sunlight.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

| Exposure Limits/Guidelines | | | | | | |
|-------------------------------------|----------|--|--|--|--|--|
| | Result | ACGIH | Canada British Columbia | Canada Manitoba | Canada New Brunswick | Canada Northwest Territories |
| Proprietary (Proprietary) | TWAs | 2 mg/m ³ TWA (inhalable fraction and vapor) | 2 mg/m ³ TWA (aerosol, inhalable, and vapour) | 2 mg/m ³ TWA (inhalable fraction and vapor) | 10 mg/m ³ TWA | 2 mg/m ³ TWA (inhalable fraction and vapour) |
| | STELs | Not established | Not established | Not established | Not established | 4 mg/m ³ STEL (inhalable fraction and vapour) |
| Vinyl Toluene (25013-15-4) | STELs | 100 ppm STEL | 75 ppm STEL | 100 ppm STEL | 100 ppm STEL; 483 mg/m ³ STEL | 100 ppm STEL |
| | TWAs | 50 ppm TWA | 25 ppm TWA | 50 ppm TWA | 50 ppm TWA; 242 mg/m ³ TWA | 50 ppm TWA |
| Exposure Limits/Guidelines (Con't.) | | | | | | |
| | Result | Canada Nova Scotia | Canada Nunavut | Canada Ontario | Canada Quebec | Canada Yukon |
| Proprietary (Proprietary) | TWAs | 2 mg/m ³ TWA (inhalable fraction and vapor) | 2 mg/m ³ TWA (inhalable fraction and vapour) | 2 mg/m ³ TWA (inhalable fraction and vapor) | Not established | 10 mg/m ³ TWA |
| | STELs | Not established | 4 mg/m ³ STEL (inhalable fraction and vapour) | Not established | 10 mg/m ³ STEV | 20 mg/m ³ STEL |
| Vinyl Toluene (25013-15-4) | STELs | 100 ppm STEL | 100 ppm STEL | 100 ppm STEL | 100 ppm STEV; 483 mg/m ³ STEV | 150 ppm STEL; 720 mg/m ³ STEL |
| | TWAs | 50 ppm TWA | 50 ppm TWA | 50 ppm TWA | 50 ppm TWAEV; 242 mg/m ³ TWAEV | 100 ppm TWA; 480 mg/m ³ TWA |
| Exposure Limits/Guidelines (Con't.) | | | | | | |
| | Result | Denmark | Finland | France | Germany DFG | Germany TRGS |
| Proprietary (Proprietary) | TWAs | 10 mg/m ³ TWA | 10 mg/m ³ TWA | 10 mg/m ³ TWA [VME] | Not established | 10 mg/m ³ TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, inhalable fraction, exposure factor 4) |
| | Ceilings | Not established | Not established | Not established | 40 mg/m ³ Peak (can occur as vapor and aerosol at the same time, inhalable fraction) | Not established |
| | MAKs | Not established | Not established | Not established | 10 mg/m ³ TWA MAK (can occur as vapor and aerosol at the same time, inhalable fraction) | Not established |
| | | | | | | 100 ppm TWA AGW |

| | | | | | | |
|-------------------------------|----------|---------------------------------------|--------------------------------------|---|---|--|
| Vinyl Toluene (25013-15-4) | TWAs | 25 ppm TWA; 120 mg/m ³ TWA | 10 ppm TWA; 49 mg/m ³ TWA | 50 ppm TWA [VME]; 240 mg/m ³ TWA [VME] | Not established | (all isomers, exposure factor 2); 490 mg/m ³ TWA AGW (all isomers, exposure factor 2) |
| | Ceilings | Not established | Not established | Not established | 40 ppm Peak (all isomers); 196 mg/m ³ Peak (all isomers) | Not established |
| | MAKs | Not established | Not established | Not established | 20 ppm TWA MAK; 98 mg/m ³ TWA MAK | Not established |

Exposure Limits/Guidelines (Con't.)

| | Result | Greece | Ireland | NIOSH | OSHA | Poland |
|-------------------------------|--------|--|---|--|--|------------------------------------|
| Proprietary (Proprietary) | TWAs | 10 mg/m ³ TWA | 10 mg/m ³ TWA | 10 mg/m ³ TWA | Not established | Not established |
| | STELs | Not established | 30 mg/m ³ STEL (calculated) | Not established | Not established | Not established |
| Vinyl Toluene (25013-15-4) | TWAs | 100 ppm TWA; 480 mg/m ³ TWA | 50 ppm TWA; 242 mg/m ³ TWA | 100 ppm TWA; 480 mg/m ³ TWA | 100 ppm TWA; 480 mg/m ³ TWA | 100 mg/m ³ TWA [NDS] |
| | STELs | 150 ppm STEL; 720 mg/m ³ STEL | 10 ppm STEL; 483 mg/m ³ STEL | Not established | Not established | 300 mg/m ³ STEL [NDSch] |

Exposure Limits/Guidelines (Con't.)

| | Result | Portugal | Spain | Sweden |
|-------------------------------|--------|--|--|---|
| Proprietary (Proprietary) | TWAs | 2 mg/m ³ TWA [VLE-MP] (inhalable fraction, aerosol and vapor) | 10 mg/m ³ TWA [VLA-ED] | Not established |
| Vinyl Toluene (25013-15-4) | STELs | 100 ppm STEL [VLE-CD] | 100 ppm STEL [VLA-EC]; 492 mg/m ³ STEL [VLA-EC] | 30 ppm Indicative STLV; 150 mg/m ³ Indicative STLV |
| | TWAs | 50 ppm TWA [VLE-MP] | 50 ppm TWA [VLA-ED]; 246 mg/m ³ TWA [VLA-ED] | 10 ppm LLV; 50 mg/m ³ LLV |

Exposure Control Notations**Denmark**

- Vinyl Toluene (25013-15-4): **Skin Notations:** (Potential for cutaneous absorption (listed under Vinyltoluene, all isomers))

Portugal

- Vinyl Toluene (25013-15-4): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Proprietary (Proprietary): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)

Sweden

- Vinyl Toluene (25013-15-4): **Skin:** (Skin notation)

ACGIH

- Vinyl Toluene (25013-15-4): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Proprietary (Proprietary): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)

Germany DFG

- Vinyl Toluene (25013-15-4): **Pregnancy:** (classification not yet possible (all isomers))
- Proprietary (Proprietary): **Carcinogens:** (Category 4 (no significant contribution to human cancer)) | **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)

Exposure Limits Supplemental**ACGIH**

- Vinyl Toluene (25013-15-4): **TLV Basis - Critical Effects:** (eye and upper respiratory tract irritation)
- Proprietary (Proprietary): **TLV Basis - Critical Effects:** (upper respiratory tract irritation)

8.2 Exposure controls**Engineering Measures/Controls**

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof electrical/ventilating/lighting/equipment.

Personal Protective Equipment

Respiratory

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

Eye/Face

- Wear chemical splash safety goggles.

Skin/Body

- Wear appropriate gloves.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

LLV = Limit Level Value is the exposure limit for 8-hour work day

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

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

STEV = Short Term Exposure Value

TLV = Threshold Limit Value determined by the American Conference of Governmental Industrial Hygienists (ACGIH)

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

TWAEV = Time-Weighted Average Exposure Value

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

| Material Description | | | |
|-------------------------------------|---|------------------------------|--|
| Physical Form | Liquid | Appearance/Description | Thick, clear blue fluorescent liquid with aromatic odor. |
| Color | Clear, blue. | Odor | Aromatic |
| Odor Threshold | Data lacking | | |
| General Properties | | | |
| Boiling Point | 334 °F(167.7778 °C) | Melting Point/Freezing Point | Data lacking |
| Decomposition Temperature | Data lacking | pH | Data lacking |
| Specific Gravity/Relative Density | = 0.9164 Water=1 | Water Solubility | 0.0089 % |
| Viscosity | Data lacking | Explosive Properties | Data lacking |
| Oxidizing Properties: | Data lacking | | |
| Volatility | | | |
| Vapor Pressure | 1.1 mmHg (torr) @ 20 °C(68 °F) | Vapor Density | 4.08 Air=1 |
| Evaporation Rate | Data lacking | | |
| Flammability | | | |
| Flash Point | 52.8 °C(127.04 °F) TCC (Tagliabue Closed Cup) | UEL | 5.2 % @ 84°C |
| LEL | 1.1 % @ 51°C | Autoignition | 538 °C(1000.4 °F) |
| Flammability (solid, gas) | Data lacking | | |
| Environmental | | | |
| Octanol/Water Partition coefficient | Data lacking | | |

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials

- Acids, bases, and strong oxidizers.

10.6 Hazardous decomposition products

- None known.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

| | | Components |
|----------------------------|------------|--|
| Vinyl Toluene (> 98.7274%) | 25013-15-4 | Acute Toxicity: Ingestion/Oral-Rat LD50 • 2255 mg/kg; <i>Sense Organs and Special Senses:Eye: Lacrimation; Behavioral: Somnolence (general depressed activity); Skin and Appendages: Other: Hair;</i> Irritation: Eye-Rabbit • 90 mg • Mild irritation; Skin-Rabbit • 100 % • Moderate irritation |

| GHS Properties | Classification |
|-------------------------------|---|
| Acute toxicity | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| Skin corrosion/Irritation | EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2 |
| Serious eye damage/Irritation | EU/CLP • Data lacking OSHA HCS 2012 • Eye Irritation 2 |
| Skin sensitization | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| Respiratory sensitization | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| Aspiration Hazard | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| Carcinogenicity | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| Germ Cell Mutagenicity | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| Toxicity for Reproduction | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| | EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects; Specific |

| | |
|---------|---|
| STOT-SE | Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects; Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation |
| STOT-RE | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |

Potential Health Effects

Inhalation

- Acute (Immediate)**
 - May cause respiratory irritation. May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.
- Chronic (Delayed)**
 - No data available

Skin

- Acute (Immediate)**
 - Causes skin irritation.
- Chronic (Delayed)**
 - No data available

Eye

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

Ingestion

- Acute (Immediate)**
 - May cause gastrointestinal irritation.
- Chronic (Delayed)**
 - No data available

Key to abbreviations

LD = Lethal Dose

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

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

international regulations.

Section 14 - Transport Information

| | 14.1 UN number | 14.2 UN proper shipping name | 14.3 Transport hazard class(es) | 14.4 Packing group | 14.5 Environmental hazards |
|-----------|----------------|---|---------------------------------|--------------------|----------------------------|
| DOT | UN2618 | Flammable liquids, n.o.s. (Vinyl Toluene) | 3 | III | NDA |
| TDG | UN2618 | FLAMMABLE LIQUID, N.O.S. (Vinyl Toluene) | 3 | III | NDA |
| IMO/IMDG | UN2618 | FLAMMABLE LIQUID, N.O.S. (Vinyl Toluene) | 3 | III | NDA |
| IATA/ICAO | UN2618 | Flammable liquid, n.o.s. (Vinyl Toluene) | 3 | III | NDA |

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code • Data lacking.

Section 15 - Regulatory Information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

SARA Hazard Classifications • Fire, Acute

| State Right To Know | | |
|--------------------------------|-------------|-----|
| Component | CAS | PA |
| Proprietary | Proprietary | Yes |
| Proprietary | Proprietary | No |
| p-bis (o-Methylstyryl) Benzene | 13280-61-0 | No |
| Vinyl Toluene | 25013-15-4 | Yes |

| Inventory | | | | | | |
|--------------------------------|-------------|------------|-------------|-------|-----------|-----------|
| Component | CAS | Canada DSL | Canada NDSL | China | EU EINECS | EU ELNICS |
| Proprietary | Proprietary | Yes | No | Yes | Yes | No |
| Proprietary | Proprietary | Yes | No | Yes | Yes | No |
| p-bis (o-Methylstyryl) Benzene | 13280-61-0 | Yes | No | Yes | Yes | No |
| Vinyl Toluene | 25013-15-4 | Yes | No | Yes | Yes | No |

| Inventory (Con't.) | | | |
|-------------------------------|-------------|------------|------|
| Component | CAS | Korea KECL | TSCA |
| Proprietary | Proprietary | Yes | Yes |
| Proprietary | Proprietary | Yes | Yes |
| p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Yes | Yes |

| | | | |
|---------------|------------|-----|-----|
| Vinyl Toluene | 25013-15-4 | Yes | Yes |
|---------------|------------|-----|-----|

Canada

Labor

Canada - WHMIS 1988 - Classifications of Substances

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | B3, D2B |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

Canada - WHMIS 1988 - Ingredient Disclosure List

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | 1 % |
| • <i>Proprietary</i> | <i>Proprietary</i> | 1 % |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

Environment

Canada - CEPA - Priority Substances List

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

China

Environment

China - Ozone Depleting Substances - First Schedule

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

China - Ozone Depleting Substances - Second Schedule

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

China - Ozone Depleting Substances - Third Schedule

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

Other

China - Annex I & II - Controlled Chemicals Lists

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

China - Dangerous Goods List

| | | |
|----------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |

| | | |
|---------------------------------|------------|------------|
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |
|---------------------------------|------------|------------|

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

Germany - Immission Control - Qualifying Quantities for Safety Reporting

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

Germany - TRGS 505 - Specific Lead Regulations

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

Environment

Germany - TA Luft - Types and Classes

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

Germany - TA Luft - Emission Limits for Carcinogenic Substances

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

Germany - TA Luft - Emission Limits for Fibers

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

Germany - TA Luft - Emission Limits for Inorganic Dusts

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

Germany - TA Luft - Emission Limits for Inorganic Gases

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

Germany - TA Luft - Emission Limits for Organic Substances

| | | |
|-----------------|------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
|-----------------|------------|------------|

| | | |
|---------------------------------|--------------------|------------|
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

Germany - Water Classification (VwVwS) - Annex 1

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

| | | |
|---------------------------------|--------------------|---|
| • Vinyl Toluene | 25013-15-4 | Not Listed ID Number 724, hazard class 1 - low hazard to waters |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

Germany - Water Classification (VwVwS) - Annex 3

| | | |
|---------------------------------|--------------------|---|
| • Vinyl Toluene | 25013-15-4 | Not Listed ID Number 724, hazard class 2 - hazard to waters |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

U.S. - OSHA - Specifically Regulated Chemicals

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

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

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

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

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

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

| | | |
|----------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |

| | | |
|--|--------------------|------------|
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |
| U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs | | |
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |
| U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs | | |
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |
| U.S. - CERCLA/SARA - Section 313 - Emission Reporting | | |
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |
| U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing | | |
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

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

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

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

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

| | | |
|-----------------|------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
|-----------------|------------|------------|

| | | |
|---------------------------------|--------------------|------------|
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

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

| | | |
|---------------------------------|--------------------|------------|
| • Vinyl Toluene | 25013-15-4 | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • <i>Proprietary</i> | <i>Proprietary</i> | Not Listed |
| • p-bis (o-Methylstyryl)Benzene | 13280-61-0 | Not Listed |

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information**Revision Date**

- 24/May/2017

Preparation Date

- 04/February/2009

Disclaimer/Statement of Liability

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Key to abbreviations

NDA = No Data Available