

Safety Data Sheet



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

1.1 Product identifier

- Product Name** • Plastic Scintillators with lead
Product Code • BC-452; BC-4522; BC-4525; BC-452510

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

- Relevant identified use(s)** • Radiation detection

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
- Telephone (General)** • 440-834-5600

1.4 Emergency telephone number

- Manufacturer** • 1-800-424-9300 - ChemTrec
Manufacturer • 703-525-3887 - Outside U.S.

Section 2: Hazards Identification

EU/EEC

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

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

2.1 Classification of the substance or mixture

- CLP**
- Contains Lead! Dusts generated by further processing (grinding, sanding or polishing) can be a source of lead exposure. The hazards represented below are based on exposure to the lead ingredient.
Acute Toxicity Inhalation 4 - H332
Carcinogenicity 1B - H350
Reproductive Toxicity 1A - H360Df
Specific Target Organ Toxicity Repeated Exposure 2 - H373
Hazardous to the aquatic environment Chronic 2 - H411
- DSD/DPD**
- Contains Lead! Dusts generated by further processing (grinding, sanding or polishing) can be a source of lead exposure. The hazards represented below are based on exposure to the lead ingredient.
Harmful (Xn)

Carcinogenic Substances - Category 2
 Substances Toxic To Reproduction - Category 1
 Substances Toxic To Reproduction - Category 3
 Dangerous to the Environment (N)
 R20/22, R33, R49, R51, R53, R61, R62

2.2 Label Elements

CLP

DANGER



- Hazard statements** • H332 - Harmful if inhaled
 H350 - May cause cancer.
 H360Df - May damage the unborn child. Suspected of damaging fertility.
 H373 - May cause damage to organs through prolonged or repeated exposure.
 H411 - Toxic to aquatic life with long lasting effects

Precautionary statements

- Prevention** • P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P260 - Do not breathe dust.
 P271 - Use only outdoors or in a well-ventilated area.
 P273 - Avoid release to the environment.
 P281 - Use personal protective equipment as required.

- Response** • P391 - Collect spillage.
 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.
 P308+P313 - IF exposed or concerned: Get medical advice/attention.

- Storage/Disposal** • P405 - Store locked up.
 P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

- Supplemental information** • 89.3315 - 98.9481 percent of this product consists of an ingredient of unknown toxicity.

DSD/DPD



- Risk phrases** • R20/22 - Harmful by inhalation and if swallowed.
 R33 - Danger of cumulative effects.
 R49 - May cause cancer by inhalation.
 R51 - Toxic to aquatic organisms.
 R53 - May cause long-term adverse effects in the aquatic environment.
 R61 - May cause harm to the unborn child.
 R62 - Possible risk of impaired fertility.

- Safety phrases** • S37 - Wear suitable gloves.
 S53 - Avoid exposure - obtain special instructions before use.
 S57 - Use appropriate containment to avoid environmental contamination.

2.3 Other Hazards

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

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Contains Lead! Dusts generated by further processing (grinding, sanding or polishing) can be a source of lead exposure. The hazards represented below are based on exposure to the lead ingredient.
Carcinogenicity 1B
Reproductive Toxicity 1A
Specific Target Organ Toxicity Repeated Exposure 2

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements**
- May cause cancer.
May damage fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

- Prevention**
- Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust.
Wear protective gloves, clothing, and eye/face protection, .
- Response**
- IF exposed or concerned: Get medical advice/attention.
- Storage/Disposal**
- 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

- Contains Lead! Dusts generated by further processing (grinding, sanding or polishing) can be a source of lead exposure. The hazards represented below are based on exposure to the lead ingredient.
Other Toxic Effects - D2A

2.2 Label elements

WHMIS



- Other Toxic Effects - D2A

WHMIS

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 | 77.3925% TO 95.2655% | 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 |
| Lead | CAS:1317-36-8 EINECS:215-267-0 | 1.0519% TO 10.6658% | NDA | EU DSD/DPD: Annex VI, Table 3.2: Repr. Cat. 1; R61; Repr. Cat. 3; R62; Xn; R20/22; R33; N; R50-53; Carc 2; R49 EU CLP: Annex VI, Table 3.1: Carc. 1B, H350; Repr. 1A, H360Df; Acute Tox. 4*, H332; Acute Tox. 4*, H302; STOT RE 2*, H373; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 OSHA HCS 2012: STOT RE 2 (Kidney, Blood, Brain, Nervous System); Carc. 1B; Repr. 1A; | NDA |
| Organic Fluors | Proprietary | 0.3648% TO 3.7015% | NDA | EU DSD/DPD: T; R24 EU CLP: Acute Tox. 3, H311 OSHA HCS 2012: Acute Tox. 3 (skn) | NDA |
| Organic Fluors | Proprietary | 0.3211% TO 3.2543% | Ingestion/Oral-Rat LD50 • 900 mg/kg Skin-Rabbit LD50 • 3160 mg/kg | EU DSD/DPD: Xn; R22; Xi; R36/38 EU CLP: Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319 OSHA HCS 2012: Flam. Liq. 4; Acute Tox. 4 (orl); Skin Irrit. 2; Eye Irrit. 2 | NDA |
| Organic Fluors | Proprietary | 2.1666% TO 2.8608% | NDA | EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified | NDA |
| Organic Fluors | Proprietary | 0.271% TO 2.7438% | NDA | EU DSD/DPD: Annex VI, Table 3.2: Xn; R21/22; C; R35 EU CLP: Annex VI, Table 3.1: Acute Tox. 3*, H311; Acute Tox. 4*, H302 OSHA HCS 2012: Skin Corr. 1B; Eye Dam. 1; Acute Tox. 3 (skn); Acute Tox. 4 (orl) | NDA |
| Organic Fluors | Proprietary | 0.026% TO 0.032% | Ingestion/Oral-Rat LD50 • 890 mg/kg | EU CLP: Community workplace exposure limit OSHA HCS 2012: Exposure limits | NDA |
| Organic Fluors | Proprietary | 0% TO 0.0035% | Ingestion/Oral-Rat LD50 • >10 g/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

- Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. Get medical attention.

Skin

- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. If skin irritation occurs: Get medical advice/attention.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

- Rinse mouth. Do not give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

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

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Water spray, carbon dioxide, foam or dry chemical.

Unsuitable Extinguishing Media • No data available.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Material is non-combustible and is not expected to pose a fire or explosion hazard. May emit toxic fumes when exposed to high heat.

Hazardous Combustion Products • No data available

5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • Ventilate the area. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. 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 25 meters (75 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. Keep unauthorized personnel away.

6.2 Environmental precautions

- Avoid release to the environment.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Avoid generating dust.
SMALL DRY SPILLS: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.
LARGE SPILLS: Cover powder spill with plastic sheet or tarp to minimize spreading.

6.4 Reference to other sections

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

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use only with adequate ventilation. Wear appropriate personal protective equipment, avoid direct contact. Avoid contact with skin, eyes or clothing. Do not breathe dust. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Keep container tightly closed. Store in a cool, dry, well-ventilated place.

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 | NIOSH | OSHA |
| Organic Fluors (Proprietary) | TWAs | Not established | 10 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable dust) | 15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction) |
| Organic Fluors (Proprietary) | TWAs | 2 mg/m ³ TWA (inhalable fraction and vapor) | 10 mg/m ³ TWA | Not established |
| Organic Fluors (Proprietary) | TWAs | 20 ppm TWA | 20 ppm TWA; 70 mg/m ³ TWA | Not established |
| Lead | TWAs | Not established | 0.050 mg/m ³ TWA (as Pb) <i>as Lead compounds</i> | Not established |
| Vinyl toluene (25013-15-4) | TWAs | 50 ppm TWA | 100 ppm TWA; 480 mg/m ³ TWA | 100 ppm TWA; 480 mg/m ³ TWA |
| | STELs | 100 ppm STEL | Not established | Not established |

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.

Personal Protective Equipment

Respiratory

- For limited exposure use an N95 dust mask. For prolonged exposure use an air-purifying respirator with high efficiency particulate air (HEPA) filters. 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 safety goggles.

Skin/Body

- Wear appropriate gloves.

Environmental Exposure Controls

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

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

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

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

| Material Description | | | |
|-------------------------------------|--------------|------------------------------|-----------------------------------|
| Physical Form | Solid | Appearance/Description | Clear, blue, fluorescent plastic. |
| Color | Clear, blue. | Odor | Data lacking |
| Odor Threshold | Data lacking | | |
| General Properties | | | |
| Boiling Point | Data lacking | Melting Point/Freezing Point | Data lacking |
| Decomposition Temperature | Data lacking | pH | Data lacking |
| Specific Gravity/Relative Density | > 1 Water=1 | Water Solubility | Data lacking |
| Viscosity | Data lacking | Explosive Properties | Data lacking |
| Oxidizing Properties: | Data lacking | | |
| Volatility | | | |
| Vapor Pressure | Data lacking | Vapor Density | Data lacking |
| Evaporation Rate | Data lacking | | |
| Flammability | | | |
| Flash Point | Data lacking | UEL | Data lacking |
| LEL | Data lacking | Autoignition | Data lacking |
| 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

- Temperatures over 300 degrees.

10.5 Incompatible materials

- No data available

10.6 Hazardous decomposition products

- Toxic fumes of carbon monoxide carbon dioxide, lead, lead oxides.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Other Material Information

- Contains Lead! Dusts generated by further processing (grinding, sanding or polishing) can be a source of lead exposure. The hazards represented below are based on exposure to the lead ingredient.

| Components | | |
|--|-------------|--|
| Vinyl toluene (77.3925% TO 95.2655%) | 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; Irritation:</i> Eye-Rabbit • 90 mg • Mild irritation; Skin-Rabbit • 100 % • Moderate irritation |
| Lead (1.0519% TO 10.6658%) | 1317-36-8 | Irritation: Skin-Rabbit • 100 mg 24 Hour(s) • Mild irritation; Multi-dose Toxicity: Inhalation-Rat TClO • 10 µg/m ³ 24 Hour(s) 22 Week(s)-Continuous; <i>Brain and Coverings:Recordings from specific areas of CNS; Blood:Changes in bone marrow not included above; Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels:True cholinesterase; Reproductive:</i> Ingestion/Oral-Mouse TDLo • 1750 mg/kg (5W male); <i>Reproductive Effects:Paternal Effects:Spermatogenesis; Reproductive Effects:Paternal Effects:Testes, epididymis, sperm duct</i> |
| Organic Fluors (0.3211% TO 3.2543%) | Proprietary | Acute Toxicity: Ingestion/Oral-Rat LD50 • 900 mg/kg; Skin-Rabbit LD50 • 3160 mg/kg; <i>Lungs, Thorax, or Respiration:Acute pulmonary edema; Liver:Other changes; Kidney, Ureter, and Bladder:Other changes; Multi-dose Toxicity:</i> Skin-Rabbit TDLo • 300 mg/kg 14 Day(s)-Continuous; <i>Skin and Appendages:After topical exposure:Primary irritation; Tumorigen / Carcinogen:</i> Skin-Mouse TDLo • 188 mg/kg 47 Week(s)-Intermittent; <i>Tumorigenic:Equivocal tumorigenic agent by RTECS criteria; Lungs, Thorax, or Respiration:Tumors; Skin and Appendages:Other:Tumors</i> |
| Organic Fluors (0.3648% TO 3.7015%) | Proprietary | Acute Toxicity: Ingestion/Oral-Rat LD50 • 2200 mg/kg; Skin-Rabbit LD50 • 520 µL/kg |
| Organic Fluors (0.271% TO 2.7438%) | Proprietary | Acute Toxicity: Ingestion/Oral-Rat LD50 • 1060 mg/kg; Skin-Rabbit LD50 • 500 mg/kg |

| GHS Properties | Classification |
|--------------------------------------|---|
| Acute toxicity | EU/CLP • Acute Toxicity - Inhalation 4 - ATEmix (Inhl) = 1.5 mg/l OSHA HCS 2012 • Data lacking |
| Skin corrosion/Irritation | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| Serious eye damage/Irritation | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| 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 • Carcinogenicity 1B OSHA HCS 2012 • Carcinogenicity 1B |
| Germ Cell Mutagenicity | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| Toxicity for Reproduction | EU/CLP • Toxic to Reproduction 1A OSHA HCS 2012 • Toxic to Reproduction 1A |
| STOT-SE | EU/CLP • Data lacking OSHA HCS 2012 • Data lacking |
| STOT-RE | EU/CLP • Specific Target Organ Toxicity Repeated Exposure 2 OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 2 |

Potential Health Effects

Inhalation

- Acute (Immediate)** • Harmful if inhaled.
- Chronic (Delayed)** • No data available

Skin

- Acute (Immediate)** • Dust from this product may cause mechanical irritation.
- Chronic (Delayed)** • No data available

Eye

- Acute (Immediate)** • Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.
- Chronic (Delayed)** • No data available

Ingestion

- Acute (Immediate)** • Excessive concentrations of dust in the workplace may cause mechanical irritation to mucous membranes.
- Chronic (Delayed)** • No data available

Other

- Chronic (Delayed)** • May cause damage to organs through prolonged or repeated exposure. The onset of symptoms of chronic lead poisoning often is gradual. The major organ systems affected re the nervous system, red blood cells, and kidneys; Anemia is an early indication of chronic exposure to lead.

Carcinogenic Effects

- May cause cancer.

| Carcinogenic Effects | | | |
|-----------------------------|------------|------------------------------|---|
| | CAS | IARC | NTP |
| Lead | 1317-36-8 | Group 2A-Probable Carcinogen | Not Listed |
| Lead as Lead compounds | NDA | Not Listed | Reasonably Anticipated to be Human Carcinogen |

Reproductive Effects

- May damage the unborn child. Suspected of damaging fertility.

Section 12 - Ecological Information**12.1 Toxicity**

| | CAS | |
|---------------------------------|------------|--|
| Plastic Scintillators with lead | NDA | Aquatic Toxicity-Fish: 96 Hour(s) <i>Fathead minnow - Pimephales promelas</i> 0.298 mg/L Comments: Lead 1317-36-8 |

- Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

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

Packaging waste

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

Section 14 - Transport Information

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

14.6 Special precautions for user

- None specified.

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

- Data lacking.

Section 15 - Regulatory Information

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

SARA Hazard Classifications

- Chronic

| State Right To Know | | |
|---------------------|-------------|-----|
| Component | CAS | PA |
| Organic Fluors | Proprietary | Yes |
| Organic Fluors | Proprietary | No |
| Organic Fluors | Proprietary | Yes |
| Lead | 1317-36-8 | No |
| Organic Fluors | Proprietary | Yes |
| Organic Fluors | Proprietary | No |
| Vinyl toluene | 25013-15-4 | Yes |
| Organic Fluors | Proprietary | Yes |

| Inventory | | | | | | |
|----------------|-------------|------------|-------------|-----------|-----------|------------|
| Component | CAS | Canada DSL | Canada NDSL | EU EINECS | EU ELNICS | Korea KECL |
| Organic Fluors | Proprietary | Yes | No | Yes | No | Yes |
| Organic Fluors | Proprietary | No | Yes | Yes | No | No |
| Organic Fluors | Proprietary | Yes | No | Yes | No | Yes |
| Lead | 1317-36-8 | Yes | No | Yes | No | Yes |
| Organic Fluors | Proprietary | Yes | No | Yes | No | Yes |

| | | | | | | |
|----------------|--------------------|-----|----|-----|----|-----|
| Organic Fluors | <i>Proprietary</i> | Yes | No | Yes | No | No |
| Vinyl toluene | 25013-15-4 | Yes | No | Yes | No | Yes |
| Organic Fluors | <i>Proprietary</i> | Yes | No | Yes | No | Yes |

| Inventory (Con't.) | | | | | | |
|--------------------|--------------------|------|--|--|--|--|
| Component | CAS | TSCA | | | | |
| Organic Fluors | <i>Proprietary</i> | Yes | | | | |
| Organic Fluors | <i>Proprietary</i> | Yes | | | | |
| Organic Fluors | <i>Proprietary</i> | Yes | | | | |
| Lead | 1317-36-8 | Yes | | | | |
| Organic Fluors | <i>Proprietary</i> | Yes | | | | |
| Organic Fluors | <i>Proprietary</i> | Yes | | | | |
| Vinyl toluene | 25013-15-4 | Yes | | | | |
| Organic Fluors | <i>Proprietary</i> | Yes | | | | |

Canada

Labor

Canada - WHMIS - Classifications of Substances

| | | |
|------------------|--------------------|---|
| • Vinyl toluene | 25013-15-4 | B3, D2B |
| • Lead | 1317-36-8 | D2A |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | B3, D1B, E, F |
| • Organic Fluors | <i>Proprietary</i> | Uncontrolled product according to WHMIS classification criteria |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |

Canada - WHMIS - Ingredient Disclosure List

| | | |
|------------------|--------------------|------------|
| • Vinyl toluene | 25013-15-4 | 1 % |
| • Lead | 1317-36-8 | 1 % |
| • Organic Fluors | <i>Proprietary</i> | 1 % |
| • Organic Fluors | <i>Proprietary</i> | 1 % |
| • Organic Fluors | <i>Proprietary</i> | 1 % |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | 1 % |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |

Environment

Canada - CEPA - Priority Substances List

| | | |
|------------------|--------------------|------------|
| • Vinyl toluene | 25013-15-4 | Not Listed |
| • Lead | 1317-36-8 | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |

United States

Labor

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

| | | |
|------------------|--------------------|------------|
| • Vinyl toluene | 25013-15-4 | Not Listed |
| • Lead | 1317-36-8 | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |

U.S. - OSHA - Specifically Regulated Chemicals

| | | |
|------------------|--------------------|------------|
| • Vinyl toluene | 25013-15-4 | Not Listed |
| • Lead | 1317-36-8 | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |

Environment

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

| | | |
|------------------|--------------------|------------|
| • Vinyl toluene | 25013-15-4 | Not Listed |
| • Lead | 1317-36-8 | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |

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

| | | |
|------------------|--------------------|------------|
| • Vinyl toluene | 25013-15-4 | Not Listed |
| • Lead | 1317-36-8 | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |

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

| | | |
|------------------|--------------------|------------|
| • Vinyl toluene | 25013-15-4 | Not Listed |
| • Lead | 1317-36-8 | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |

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

| | | |
|-----------------|------------|------------|
| • Vinyl toluene | 25013-15-4 | Not Listed |
| • Lead | 1317-36-8 | Not Listed |

| | | |
|---|--------------------|------------|
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs | | |
| • Vinyl toluene | 25013-15-4 | Not Listed |
| • Lead | 1317-36-8 | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| U.S. - CERCLA/SARA - Section 313 - Emission Reporting | | |
| • Vinyl toluene | 25013-15-4 | Not Listed |
| • Lead | 1317-36-8 | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing | | |
| • Vinyl toluene | 25013-15-4 | Not Listed |
| • Lead | 1317-36-8 | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |

United States - California

Environment

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

| | | |
|------------------|--------------------|------------|
| • Vinyl toluene | 25013-15-4 | Not Listed |
| • Lead | 1317-36-8 | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |

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

| | | |
|------------------|--------------------|------------|
| • Vinyl toluene | 25013-15-4 | Not Listed |
| • Lead | 1317-36-8 | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |

| | | |
|------------------|--------------------|------------|
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |

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

| | | |
|------------------|--------------------|------------|
| • Vinyl toluene | 25013-15-4 | Not Listed |
| • Lead | 1317-36-8 | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |

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

| | | |
|------------------|--------------------|------------|
| • Vinyl toluene | 25013-15-4 | Not Listed |
| • Lead | 1317-36-8 | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |

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

| | | |
|------------------|--------------------|------------|
| • Vinyl toluene | 25013-15-4 | Not Listed |
| • Lead | 1317-36-8 | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |

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

| | | |
|------------------|--------------------|------------|
| • Vinyl toluene | 25013-15-4 | Not Listed |
| • Lead | 1317-36-8 | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |

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

| | | |
|------------------|--------------------|------------|
| • Vinyl toluene | 25013-15-4 | Not Listed |
| • Lead | 1317-36-8 | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |

| | | |
|------------------|--------------------|------------|
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |

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

| | | |
|------------------|--------------------|------------|
| • Vinyl toluene | 25013-15-4 | Not Listed |
| • Lead | 1317-36-8 | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |
| • Organic Fluors | <i>Proprietary</i> | Not Listed |

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

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

Section 16 - Other Information**Revision Date**

- 24/May/2017

Preparation Date

- 01/June/2015

Disclaimer/Statement of Liability

- Information presented herein has been compiled from sources considered to be dependable, and is accurate and reliable to the best of our knowledge and belief but is not guaranteed to be so. Since conditions of use are beyond our control, we make no warranties, expressed or implied, except those that may be contained in our written contract of sale or acknowledgement.

Key to abbreviations

NDA = No data available