

Safety Data Sheet



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

1.1 Product identifier

Product Name	• Polyvinyl Toluene & Organic Fluors
Synonyms	• Plastic Scintillators
Product Code	• BC-400; BC-400 B; BC-400V; BC-404; BC-404 A; BC-404 B; BC-404 C; BC-404 CIM; BC-404 V; BC-404VM; BC-408; BC-408 A; BC-408 LB; BC-408 NS; BC-408 S; BC-408 V; BC-412; BC-412 IM; BC-414; BC-414 A; BC-416; BC-418; BC-420; BC-422; BC-422A; BC-428; BC-428 V; BC-428 VM; BC-428 M; BC-430; BC-444A; BC-444G; BC-444M; BC-446; BC-488; BC-49901; BC-49906; BC-49909; BC-49910; BC-49918; BC-49953; BC-49977; BC-49978; BC-49979; BC-49980; BC-49983; BC-49985; BC-49986; BC-49988; BC-810; BC-444

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

Relevant identified use(s)	• Radiation detection
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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	• Not classified
DSD/DPD	• Not classified

2.2 Label Elements

CLP**Hazard statements** • No label element(s) required**DSD/DPD****Risk phrases** • No label element(s) required**2.3 Other Hazards****CLP** • According to Regulation (EC) No. 1272/2008 (CLP) this material is not considered hazardous.**DSD/DPD** • According to European Directive 1999/45/EC this preparation is not considered dangerous.**United States (US)**

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture**OSHA HCS 2012** • Not classified**2.2 Label elements****OSHA HCS 2012**
Hazard statements • No label element(s) required**2.3 Other hazards****OSHA HCS 2012** • This product is not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.**Canada**

According to: WHMIS

2.1 Classification of the substance or mixture**WHMIS** • Not classified**2.2 Label elements****WHMIS** • No label element(s) required.**2.3 Other hazards****WHMIS** • In Canada, the product mentioned above is not 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
				EU DSD/DPD: Xi; R36/37/38; R67	

Vinyl toluene	CAS:25013-15-4	93.8539% TO 99.964%	Ingestion/Oral-Rat LD50 • 2255 mg/kg	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
Organic fluors	Proprietary	0% TO 5.0989%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Organic fluors	Proprietary	0% TO 3.7893%	NDA	EU DSD/DPD: Xi; R38 EU CLP: Skin Irrit. 2, H315 OSHA HCS 2012: Skin Irrit. 2	NDA
Organic fluors	Proprietary	0% TO 3.2482%	NDA	EU DSD/DPD: Xn; R22 EU CLP: Acute Tox. 4, H302 OSHA HCS 2012: Acute Tox. 4 (orl)	NDA
Organic fluors	Proprietary	0% TO 2.6769%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Organic fluors	Proprietary	0% TO 2.4524%	NDA	EU DSD/DPD: Xi; R36/37/38 EU CLP: Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3: Resp. Irrit., H335 OSHA HCS 2012: Eye Irrit. 2; Skin Irrit. 2; STOT SE 3: Resp. Irrit.	NDA
Organic fluors	Proprietary	0% TO 0.5501%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Organic fluors	Proprietary	0% TO 0.2184%	NDA	EU DSD/DPD: Xn; R22 EU CLP: Acute Tox. 4, H302 OSHA HCS 2012: Acute Tox. 4 (orl)	NDA
Organic fluors	Proprietary	0% TO 0.112%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Organic fluors	Proprietary	0% TO 0.11%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Organic fluors	Proprietary	0% TO 0.11%	Skin-Rabbit LD50 • >5 g/kg Ingestion/Oral-Rat LD50 • 4600 mg/kg	EU DSD/DPD: Xi; R38 EU CLP: Skin Irrit. 2, H315 OSHA HCS 2012: Skin Irrit. 2	NDA
Organic fluors	Proprietary	0% TO 0.05599%	NDA	EU CLP: Community workplace exposure limit OSHA HCS 2012: Exposure limit	NDA
Organic fluors	Proprietary	0% TO 0.0442%	Ingestion/Oral-Rat LD50 • >10 g/kg	EU CLP: Community workplace exposure limit OSHA HCS 2012: Exposure limits	NDA
Organic fluors	Proprietary	0.0311% TO 0.0336%	Ingestion/Oral-Rat LD50 • 890 mg/kg	EU CLP: Community workplace exposure limit OSHA HCS 2012: Exposure limits	NDA

See Section 16 for full text of H-statements and R-phrases.

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. If signs/symptoms continue, get medical attention.

Skin

- Wash skin with soap and water. If irritation develops and persists, get medical attention.

Eye

- Flush eyes with water for at least 15 minutes while holding eyelids open. If eye irritation persists: Get medical advice/attention.

Ingestion • Obtain medical attention immediately if ingested.

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 fog, carbon dioxide, foam, dry chemical.

Unsuitable Extinguishing Media • No data available.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • None known.

Hazardous Combustion Products • Plastic will burn and produce noxious smoke.

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 before entry. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact.

Emergency Procedures • As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) 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. Minimize dust generation and accumulation. Wear appropriate personal protective equipment, avoid direct contact. 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, dry, well ventilated area.

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	10 ppm TWA	10 ppm TWA; 50 mg/m ³ TWA	Not established
Organic fluors (Proprietary)	Ceilings	Not established	0.5 ppm Ceiling; 5 mg/m ³ Ceiling	Not established
Organic fluors (Proprietary)	TWAs	2 mg/m ³ TWA (inhalable fraction and vapor)	10 mg/m ³ TWA	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

Exposure Control Notations

ACGIH

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

Exposure Limits Supplemental

ACGIH

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

8.2 Exposure controls

Engineering Measures/Controls

- Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values. Ensure that dust handling systems (such as exhaust ducts, dust collectors, vessels and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is not leakage from the equipment).

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. Wear long sleeves and/or protective coveralls.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

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

NIOSH = National Institute of Occupational Safety and Health

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

OSHA = Occupational Safety and Health
Administration

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

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Clear, fluorescent solid plastic, with no odor.
Color	Clear, fluorescent.	Odor	No odor.
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	= 1.03 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 under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization not indicated.

10.4 Conditions to avoid

- Temperatures over 300° C.

10.5 Incompatible materials

- Strong oxidizers.

10.6 Hazardous decomposition products

- Carbon dioxide and carbon monoxide, hydrocarbons.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Vinyl toluene (93.8539% TO 99.964%)	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
Organic fluors (0% TO 3.2482%)	Proprietary	Acute Toxicity: Ingestion/Oral-Rat LD50 • 1000 mg/kg; <i>Liver:Changes in liver weight</i>
Organic fluors (0% TO 3.7893%)	Proprietary	Acute Toxicity: Ingestion/Oral-Rat LD50 • 32 g/kg; Reproductive: Ingestion/Oral-Rat TDLo • 418 g/kg (10W male/10D pre); <i>Reproductive Effects:Effects on Newborn:Growth statistics (e.g., reduced weight gain)</i>
Organic fluors (0% TO 0.11%)	Proprietary	Acute Toxicity: Ingestion/Oral-Rat LD50 • 4600 mg/kg; Skin-Rabbit LD50 • >5 g/kg; Irritation: Skin-Rabbit • 500 mg 24 Hour(s) • Moderate irritation; Mutagen: DNA damage • Unreported Route-Human • Liver (Somatic cell) • 10 mg/L 20 Hour(s); Tumorigen / Carcinogen: Implant-Mouse TDLo • 400 mg/kg; <i>Tumorigenic:Equivocal tumorigenic agent by RTECS criteria; Kidney, Ureter, and Bladder:Tumors</i>
Organic fluors (0% TO 0.2184%)	Proprietary	Acute Toxicity: Ingestion/Oral-Rat LD50 • 1500 mg/kg; Multi-dose Toxicity: Ingestion/Oral-Rat TDLo • 33000 mg/kg 33 Day(s)-Intermittent; <i>Liver:Other changes; Kidney, Ureter, and Bladder:Other changes; Nutritional and Gross Metabolic:Gross Metabolite Changes:Weight loss or decreased weight gain;</i> Reproductive: Ingestion/Oral-Rat TDLo • 1100 mg/kg (1-22D preg); <i>Reproductive Effects:Specific Developmental Abnormalities:Cardiovascular (circulatory) system</i>
Organic fluors (0% TO 2.4524%)	Proprietary	Acute Toxicity: Ingestion/Oral-Rat LD50 • 5 mL/kg; Mutagen: Micronucleus test • Inhalation-Mouse • 53 ppm 6 Hour(s) 3 Day(s)-Continuous; Cytogenetic analysis • Inhalation-Mouse • 53 ppm 6 Hour(s) 3 Day(s)-Continuous; Sister chromatid exchange • Inhalation-Mouse • 53 ppm 6 Hour(s) 3 Day(s)-Continuous

GHS Properties	Classification
Acute toxicity	EU/CLP • Data lacking 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 • 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

STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-RE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

Potential Health Effects

Inhalation

- Acute (Immediate)**
 - Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs but reactions are typically reversible.
- Chronic (Delayed)**
 - Repeated and prolonged exposure to dust may cause lung effects including pneumoconiosis.

Skin

- Acute (Immediate)**
 - Exposure to dust may cause mechanical irritation.
- Chronic (Delayed)**
 - No data available.

Eye

- Acute (Immediate)**
 - Exposure to dust may cause mechanical irritation. 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 nuisance dust in the workplace may cause mechanical irritation to mucous membranes.
- Chronic (Delayed)**
 - No data available.

Key to abbreviations

LD = Lethal Dose

TD = Toxic 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

- 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

- No data available

Section 15 - Regulatory Information

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

SARA Hazard Classifications • None

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Organic fluors	Proprietary	Yes	No	Yes	No	Yes
Organic fluors	Proprietary	Yes	No	Yes	No	Yes
Organic fluors	Proprietary	No	No	Yes	No	No
Organic fluors	Proprietary	No	Yes	Yes	No	Yes
Organic fluors	Proprietary	Yes	No	Yes	No	Yes
Organic fluors	Proprietary	Yes	No	Yes	No	Yes
Organic fluors	Proprietary	No	Yes	Yes	No	Yes
Organic fluors	Proprietary	No	No	No	No	No
Organic fluors	Proprietary	Yes	No	Yes	No	Yes
Organic fluors	Proprietary	Yes	No	Yes	No	Yes
Organic fluors	Proprietary	Yes	No	Yes	No	Yes
Organic fluors	Proprietary	Yes	No	Yes	No	Yes
Vinyl toluene	25013-15-4	Yes	No	Yes	No	Yes
Organic fluors	Proprietary	Yes	No	Yes	No	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Uncontrolled product according to WHMIS classification criteria
• Vinyl toluene	25013-15-4	B3, D2B
• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Uncontrolled product according to WHMIS classification criteria
• Organic fluors	<i>Proprietary</i>	Not Listed
• 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
• 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

• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	1 %
• Vinyl toluene	25013-15-4	1 %
• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• 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>	Not Listed
• Organic fluors	<i>Proprietary</i>	1 %
• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed

Environment

Canada - CEPA - Priority Substances List

• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Vinyl toluene	25013-15-4	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
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• 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

• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Vinyl toluene	25013-15-4	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
• 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

• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Vinyl toluene	25013-15-4	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
• 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

• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Vinyl toluene	25013-15-4	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
• 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

• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed

• Vinyl toluene	25013-15-4	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	5000 lb final RQ; 2270 kg final RQ
• 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
• Organic fluors	<i>Proprietary</i>	Not Listed

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

• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Vinyl toluene	25013-15-4	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
• 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

• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Vinyl toluene	25013-15-4	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	5000 lb EPCRA RQ
• 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
• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed

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

• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Vinyl toluene	25013-15-4	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	1000 lb lower TPQ; 10000 lb upper TPQ

• 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
• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed

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

• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Vinyl toluene	25013-15-4	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
• 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

• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Vinyl toluene	25013-15-4	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
• 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

• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Vinyl toluene	25013-15-4	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
• 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

• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Vinyl toluene	25013-15-4	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
• 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)

• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Vinyl toluene	25013-15-4	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
• 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)

• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Vinyl toluene	25013-15-4	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
• 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

• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Vinyl toluene	25013-15-4	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
• 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

• Organic fluors	<i>Proprietary</i>	Not Listed
• Organic fluors	<i>Proprietary</i>	Not Listed
• Vinyl toluene	25013-15-4	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
• 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.

Section 16 - Other Information**Relevant Phrases (code & full text)**

- H226 - Flammable liquid and vapour
- H302 - Harmful if swallowed
- H315 - Causes skin irritation
- H319 - Causes serious eye irritation
- H335 - May cause respiratory irritation
- H336 - May cause drowsiness or dizziness
- R22 - Harmful if swallowed.
- R36/37/38 - Irritating to eyes, respiratory system and skin.
- R38 - Irritating to skin.
- R67 - Vapours may cause drowsiness and dizziness.

Revision Date

- 24/May/2017

Preparation Date

- 01/June/2015

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Key to abbreviations

NDA = No data available