Safety Data Sheet

Safety Data Sheet (in compliance with Regulation (EC) 1907/2006, Regulation (EC) 1272/2008 and Regulation (EC) 453/2010)

Date Issued: 22 June 2009
Document Number: 0070515MS
Date Revised: 17 July 2013
Revision Number: 4

1. PRODUCT IDENTIFICATION

Trade Name (as labeled):	**Versa-Link® HF Etching Gel**
Chemical Name/Classification:	Mixture
Product Identifier (Part/Item Number):	70515
U.N. Number:	UN1790
U.N. Dangerous Goods Classification:	8(6.1), PGII
Recommended Use:	Etching solution for ceramic restorations
Restrictions on Use:	For professional use only
Manufacturer/Supplier Name:	Sultan Healthcare
Manufacturer/Supplier Address:	411 Hackensack Avenue, 9th Floor Hackensack, NJ
Manufacturer/Supplier Telephone Number:	1-201-871-1232 or 800-637-8582 (Product Information)
Emergency Contact Telephone Number:	800-535-5053 (INFOTRAC) 1-352-323-3500 (Outside the United States-Call Collect)
Email address:	customer.service@sultanhc.com

2. HAZARD(s) IDENTIFICATION

Hazard/Danger Classification (Regulation EC) No. 1272/2008 [CLP] / Hazcom 2012:

Health	Environmental	Physical
Skin Corrosion Category 1B Acute Toxicty Category 4 (H312, H332)	Not Hazardous	Not Hazardous

EU Classification(1999/45/EC as amended): Toxic (T), Corrosive (C
EU Risk (R) Phrases: R23/24/25, R34
Refer to Section 16 for the full text of the EU Classifications and R Phrases.

Labeling Elements: Contains: hydrofluoric acid

Signal Word: Danger!

Hazard Statements	Precautionary Statements
H312 Harmful in contact with skin H314 Causes severe skin burns and eye damage. H332 Harmful if inhaled.	P260 Do not breathe mist, vapours or spray. P264 Wash thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves, protective clothing, eye protection, and face protection. P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P302 + P352 IF ON SKIN: Wash with plenty soap and water. P312 Call a POISON CENTER if you feel unwell. P362 + P364 Take off contaminated clothing and wash it before reuse. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P310 Immediately call a POISON CENTER. P405 Store locked up. P501 Dispose of contents and container in accordance with local and national regulations.

Other Hazards: None

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Hazardous Components	C.A.S. # EC#	IUPAC Name	Substance Classification	WT %
Hydrofluoric Acid	7664-39-3 / 231-634-8	Hydrogen Fluoride	T+ C R26/27/28, R35 Acute Tox. 1 (H310) Acute Tox 2 (H300, H330), Skin Corr. 1A (H314)	6

Refer to Section 16 for the full text of the EU Classifications and R Phrases.

4. FIRST-AID MEASURES

Routes of Exposure	First Aid Instructions
Eye	Immediately flush eyes with large quantities of water for at least 20 minutes, holding the eyelids apart. Get immediate medical attention, preferably from an ophthalmologist. Effects may be delayed up to 24 hours.

Skin	Immediately remove contaminated clothing and flush skin with water for 30 minutes. Cover burn with a 2.5% calcium gluconate gel and massage into skin. Get immediate medical attention, no matter how minor the burn. Effects may be delayed up to 24 hours.
Inhalation	Immediately remove to fresh air. If breathing is difficult, have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Get immediate medical attention**.**
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. If alert rinse mouth with water then drink a large glass of water, milk or several ounces of milk of magnesia. Immediately contact poison control.
Most important symptoms of exposure	Causes eye burns with possible blindness. Skin contact may cause burns that are not immediately evident. Inhalation of vapors may cause respiratory irritation or burns. First aid is required. Effects may be delayed for 24 hours.
Other	None known.
Note to Physicians (Treatment, Testing, and Monitoring): Treatment of overexposure should be directed at the control of symptoms and clinical conditions.	

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Use any media appropriate for surrounding fire.
Fire Fighting Procedures:	Cool fire exposed containers and structures with water.
Specific Hazards Arising from the Chemical:	Heating hydrofluoric acid gives off corrosive fumes which are heavier than air.
Precautions for Fire Fighters:	Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing in fires with chemicals.

Recommended Protective Equipment for Fire Fighters:

EYES/FACE	SKIN	RESPIRATORY	THERMAL
			

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, PPE and Emergency Procedures: Evacuate spill area and keep unprotected personnel away. Wear appropriate protective clothing, gloves and eye protection. For large spills or confined spaces, respiratory protection is required.
Environmental Precautions: Prevent spill from entering sewers and water courses. Report releases as required by local and national authorities.
Methods and Materials for Containment and Clean-up: Collect using an inert non-combustible absorbent material and place in appropriate containers for disposal. Clean spill area thoroughly.

Recommended Personal Protective Equipment for Containment and Clean-up:			
EYES/FACE	**SKIN**	**RESPIRATORY**	**THERMAL**
			

7. HANDLING AND STORAGE

Precautions for Safe Handing: Prevent contact with the eyes, skin and clothing. Do not breathe vapors, mists or fumes. Wear appropriate protective clothing and equipment. Use only with adequate ventilation. Wash thoroughly with soap and water after handling. Keep containers closed when not in use.

Empty containers retain product residues can be hazardous. Follow all MSDS precautions when handling empty containers.

Conditions for Safe Storage: Store in a cool, dry, well ventilated area away from incompatible materials. Protect from physical damage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:

Hydrogen Fluoride	United States	3 ppm TWA US OSHA PEL 0.5 ppm , skin TWA ACGIH TLV, 2 ppm Ceiling
	Germany	1 ppm TWA DFG MAK
	United Kingdom	1.8 ppm TWA , 3 ppm STEL UK OEL
	France	1.8 ppm TWA VME, 3 ppm VLCT INRS
	Spain	1.8 ppm TWA VLA-ED, 3 ppm VLA-EC
	Italy	None Established
	European Union	1.8 ppm TWA, 3 ppm STEL EU IOEL

Occupational Exposure Limits:

Biological Exposure Limits:
Hydrogen Fluoride (as fluorides) - Prior to shift 3 mg/g creatinine; End of shift 10 mg/g creatinine. (ACGIH BEI)

Appropriate Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

Individual Protection Measures (PPE)

Specific Eye/face Protection: Chemical safety goggles recommended.

Specific Skin Protection: Wear impervious gloves such as PVC or neoprene. Recommended glove: PVC or neoprene. Contact glove supplier for thickness and breakthrough times.

Specific Respiratory Protection: If occupational exposure limits are exceeded, an approved respirator is recommended. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations for use and selection of respiratory protection.

Specific Thermal Hazards: Not applicable			
Recommended Personal Protective Equipment:			
EYES/FACE	SKIN	RESPIRATORY	THERMAL
			
Environmental Exposure Controls: None required for normal use.			
General Hygiene Considerations and Work Practices: Prevent contact with the eyes, skin and clothing. Wash thoroughly with soap and water after handling. Eye and skin washing facilities should be available in the work area.			
Protective Measures During Repair and Maintenance of Contaminated Equipment: Wear protective clothing and equipment as described in Section 8. Wash thoroughly with soap and water after handling.			

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Pink gel	**Explosive limits:**	Not applicable
Odor:	Acrid	**Vapor pressure:**	25 @ 20°C mmHg
Odor threshold:	0.042 ppm (hydrogen fluoride)	**Vapor density:**	>1
pH:	0.5	**Relative density:**	1.17-1.18
Melting/freezing point:	-32°F / -35°C	**Solubility:**	Complete
Initial boiling point and range:	212-226°F / 100-108°C	**Partition coefficient: n-octanol/water:**	Not available
Flash point:	>200°F / 93.3°C	**Auto-ignition temperature:**	Not available
Evaporation rate:	<1 (butyl acetate =1)	**Decomposition temperature:**	Not available
Flammability:	Not flammable	**Viscosity:**	Not available
Explosive Properties:	None	**Oxidizing Properties:**	None

10. STABILITY AND REACTIVITY

Reactivity: Will not polymerize. Reactive with many other chemicals.

Chemical Stability: Stable under normal conditions of use.

Possibility of Hazardous Reactions: Reacts with metals to form hydrogen gas. Reacts with bases to generate heat and corrosive and toxic fumes.

Conditions to Avoid: Attacks some plastics, rubber, and coatings. Avoid heat.

Incompatible materials: Avoid bases, alkenes, cyanide salts, dithiocarbamates, isocyanates, mercaptans, nitrides, nitriles, sulfides, sulfites, nitrites, thiosulfates, dithionites, carbonates, arsenic trioxide, phosphorus pentachloride, acetic anhydride, alkali metals, ammonium hydroxide, chlorosulfonic acid, ethylenediamine, fluorine, potassium permanganate, oleum, propylene oxide, vinyl acetate, mercury(II) oxide.

Hazardous Decomposition Products: Attacks glass and other silica containing materials to form silicon tetrafluoride, a toxic gas. Emits highly corrosive fumes of hydrogen fluoride gas when heated.

11. TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eyes: Causes burns to eyes with redness, pain and blurred vision. Blindness may occur.

Skin: Skin contact causes serious skin burns that may not be immediately apparent or painful. Symptoms may be delayed up to 24 hours. The fluoride ion readily penetrates the skin causing destruction of deep tissue layers and bone.

Ingestion: Swallowing may cause abdominal pain, vomiting, diarrhea, burns to the digestive tract and possible perforation of the stomach, cardiac arrhythmia and respiratory failure. Kidney damage may occur.

Inhalation: Inhalation of vapors or mists may cause mucous membrane and upper respiratory tract irritation and burns. Symptoms include sore throat, coughing, labored breathing and lung inflammation. Symptoms may be delayed up to 24 hours.

Chronic Health Effects: Prolonged overexposure to hydrogen fluorides may cause fluorosis with symptoms of joint pain, limited mobility, brittle bones, calcification of ligaments, bone and teeth abnormalities and mottled tooth enamel.

Carcinogenicity: A 2-year study in rats found a weak, equivocal fluoride-related increase in the occurrence of osteosarcomas in male rats, and no evidence of carcinogenicity in female rats or male or female mice. The weight of the evidence indicates that fluoridation of water does not increase the risk of developing cancer. IARC has determined that the carcinogenicity of fluoride to humans is not classifiable. None of the components are listed as a carcinogen by IARC, NTP, OSHA, ACGIH or the EU Substances Directive.

Mutagenicity: Hydrogen fluoride: Negative in AMES test. Negative dominant lethal mutations in mice.

Medical Conditions Aggravated by Exposure: Employees with pre-existing eye and skin disorders may be at increased risk from exposure.

Acute Toxicity Data:

Hydrogen fluoride: Inhalation rat LC50 1276 ppm/1 hr; Dermal LDL0 mice 500 mg/kg; Intraperitional LDL0 rat 25 mg/kg.

Reproductive Toxicity Data: In a 75 day reproductive study with rats, doses of 4.5 ppm and 9.0 ppm showed a significant decrease in sperm count, sperm motility, sperm viability and sperm function. However, other animal studies, including two-generation studies, have not found alterations in serum hormone levels in male rats, testicular histopathology, sperm

morphology, or fertility. None of the available laboratory animal studies examined reproductive toxicity at low fluoride doses. The inadequate human studies and conflicting animal studies do not allow for an assessment of the potential of fluoride to induce reproductive effects in humans. Animal studies have not found increases in the incidences of birth defects in the absence of maternal toxicity. At doses that caused maternal toxicity (decreases in body weight gain and food consumption), increases in abnormalities were found.

Specific Target Organ Toxicity (STOT):

Single Exposure: Hydrogen fluoride is highly corrosive to rabbit skin. An 8% solution in a rabbit eye will cause reversible eye damage lasting 40-65 days.

Repeated Exposure: Repeated inhalation of 17 ppm hydrogen fluoride resulted in damage to the lungs, liver, and kidneys of animals, but similar inhalation of 8.6 ppm failed to elicit significant pathologic change in these tissues.

12. ECOLOGICAL INFORMATION

Toxicity:
Hydrofluoric acid: No data available

Persistence and Degradability: Biodegradation is not applicable to inorganic substances such as hydrogen fluoride.

Bio-accumulative Potential: The biological half-life of hydrogen fluoride is 12-24 hours.

Mobility in Soil: This product is expected to be highly mobile in soil.

Other Adverse Effects: The low pH of this product will cause effects in aquatic systems and eco-systems.

Results of PBT/vPvB Assessment: Not applicable.

13. DISPOSAL CONSIDERATIONS

Regulations: Dispose in accordance with local and national environmental regulations

Properties (Physical/Chemical) Affecting Disposal: None known.

Waste Treatment Recommendations: None needed for normal anticipated use.

14. TRANSPORT INFORMATION

UN Number:	ADR/RID: UN1790	IMDG: UN1790	IATA: UN1790	DOT: UN1790
UN proper shipping name:	ADR/RID: Hydrofluoric Acid (with not more than 60% strength) IMDG: Hydrofluoric Acid (with not more than 60% strength) IATA: Hydrofluoric Acid (with not more than 60% strength) DOT: Hydrofluoric Acid (with not more than 60% strength)			
Transport hazard class(es):	ADR/RID: 8 (6.1)	IMDG: 8 (6.1)	IATA: 8 (6.1)	DOT: 8 (6.1)
Packaging group:	ADR/RID: PGII	IMDG: PGII	IATA: PGII	DOT: PGII

Environmental hazards:	ADR/RID: No	IMDG Marine pollutant: No	IATA: No	DOT: No
Special precautions for user: Not applicable				

15. REGULATORY INFORMATION

U.S. Federal Regulations

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA): This product has an RQ of 16,666 lbs based on the RQ hydrofluoric acid of 100 lbs present at 6%. Many other states have more stringent regulations. Report all spills in accordance with local, state, and federal regulations.

Toxic Substances Control Act (TSCA): This product is a medical device and not subject to chemical notification requirements.

OSHA Hazard Classification: Corrosive, toxic, target organ effects

Clean Water Act (CWA): Not Listed

Clean Air Act (CAA): Hydrogen fluoride - listed

Superfund Amendments and Reauthorization Act (SARA) Title III Information:

SARA Section 311/312 (40 CFR 370) Hazard Categories:

Immediate Hazard:	**Yes**	**Pressure Hazard:**	**No**
Delayed Hazard:	**Yes**	**Reactivity Hazard:**	**No**
Fire Hazard:	**No**		

This product contains the following toxic chemical(s) subject to reporting requirements of SARA Section 313 (40 CFR 372):

Components	C.A.S. #	WT %
Hydrogen Fluoride	7664-39-3	6

State Regulations

California: This product contains the following chemicals(s) known to the State of California to cause cancer, birth defects or reproductive harm:

Components	C.A.S. #	WT %
None		

International Regulations

EU REACH: The substances in this product comply with the EU REACH regulation as applicable.

16. OTHER INFORMATION

Full text of Classification abbreviations used in Section 2 and 3:
C Corrosive
T Toxic
T+ Very toxic
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R26/27/28 Very toxic by inhalation, in contact with skin and if swallowed
R34 Causes burns.
R35 Causes severe burns.

Acute Tox 1 Acute Toxicity Category 1
Acute Tox 2 Acute Toxicity Category 2
Skin Corr 1 Skin Corrosion Category 1

H300 Fatal if swallowed.
H310 Fatal in contact with skin
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H330 Fatal if inhaled.
H332 Harmful if inhaled.

Date of SDS Preparation/Revision: 17 July 2013

Data Sources: US NLM ChemID Plus and HSDB, Substance SDS for components, IUCLID Dataset EU Chemical Bureau, ESIS, Country websites for occupational exposure limits.

Safety Data Sheet

Safety Data Sheet (in compliance with Regulation (EC) 1907/2006, Regulation (EC) 1272/2008 and Regulation (EC) 453/2010)

Date Issued: 22 June 2009
Document Number: 0070520MS
Date Revised: 16 July 2013
Revision Number: 4

1. PRODUCT IDENTIFICATION

Trade Name (as labeled):	**Versa-Link® Primer**
Chemical Name/Classification:	Trimethoxysilylpropyl methacrylate
Product Identifier (Part/Item Number):	70520, 70515
U.N. Number:	None
U.N. Dangerous Goods Classification:	None
Recommended Use:	Bonding of ceramic restorations
Restrictions on Use:	Use only as directed
Manufacturer/Supplier Name:	Sultan Healthcare
Manufacturer/Supplier Address:	411 Hackensack Avenue, 9th Floor Hackensack, NJ
Manufacturer/Supplier Telephone Number:	1-201-871-1232 or 800-637-8582 (Product Information)
Emergency Contact Telephone Number:	800-535-5053 (INFOTRAC) 1-352-323-3500 (Outside the United States – Call Collect)
Email address:	customer.service@sultanhc.com

2. HAZARD(s) IDENTIFICATION

Hazard/Danger Classification (Regulation EC) No. 1272/2008 [CLP] / Hazcom 2012: Not hazardous

EU Classification (1999/45/EC as amended): Not a dangerous preparation

EU Labeling: None Required

Other Hazards: None

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Hazardous Components	C.A.S. # EC#	IUPAC Name	Substance Classification	WT %
Trimethoxysilylpropyl methacrylate	2530-85-0/ 219-785-8	3-trimethoxysilylpropyl 2- methylprop-2-enoate	Not classified as hazardous	>10

Refer to Section 16 for the full text of the GHS and H phrases and EU Classifications and R Phrases.

4. FIRST-AID MEASURES

Routes of Exposure	First Aid Instructions
Eye	Flush eyes with large quantities of water several minutes, holding the eyelids apart. Get medical attention if irritation persists.
Skin	Wash skin with soap and water.
Inhalation	If irritation develops, remove to fresh air. Get medical attention if symptoms persist.
Ingestion	If swallowed, wash mouth with water. Never give anything my mouth to an unconscious person. Get medical attention.
Most important symptoms of exposure	May cause mild eye and skin irritation.
Other	None known.
Note to Physicians (Treatment, Testing, and Monitoring): Treatment of overexposure should be directed at the control of symptoms and clinical conditions.	

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Use media appropriate for surrounding fire.
Fire Fighting Procedures:	Cool fire exposed containers and structures with water.
Specific Hazards Arising from the Chemical:	None known.
Precautions for Fire Fighters:	Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for all fires involving chemicals.

Recommended Protective Equipment for Fire Fighters:

EYES/FACE	SKIN	RESPIRATORY	THERMAL
			

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, PPE and Emergency Procedures: For large spills, wear eye protection and gloves. Small spills do not require special precautions.

Environmental Precautions: Prevent spill from entering sewers and water courses. Report releases as required by local and national authorities.

Methods and Materials for Containment and Clean-up: Collect using an inert non-combustible absorbent material and place in appropriate containers for disposal.

Recommended Personal Protective Equipment for Containment and Clean-up:

EYES/FACE	SKIN	RESPRIATORY	THERMAL
			

7. HANDLING AND STORAGE

Precautions for Safe Handing: Avoid contact with the eyes. Use in accordance with package instructions.

Conditions for Safe Storage: No special storage required.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:

Trimethoxysilylpropyl methacrylate	United States	None Established
	Germany	None Established
	United Kingdom	None Established
	France	None Established
	Spain	None Established
	Italy	None Established
	European Union	None Established

Biological Exposure Limits: None Established

Appropriate Engineering Controls: No special controls required.

Individual Protection Measures (PPE)

Specific Eye/face Protection: Safety glasses should be worn if contact is likely.
Specific Skin Protection: Wear latex or nitrile gloves for prolonged use. Recommended glove: nitrile gloves. **Consult glove supplier for thickness and breakthrough times.**
Specific Respiratory Protection: None required under normal use conditions.
Specific Thermal Hazards: Not applicable

Recommended Personal Protective Equipment:			
EYES/FACE	SKIN	RESPRIATORY	THERMAL
			
Environmental Exposure Controls: None required for normal use.			
General Hygiene Considerations and Work Practices: Routine hand washing after use recommended.			
Protective Measures During Repair and Maintenance of Contaminated Equipment: Not applicable for product.			

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Straw colored liquid	**Explosive limits:**	Not applicable
Odor:	Ester odor	**Vapor pressure:**	<1.3 hPa @ 20°C
Odor threshold:	Not available	**Vapor density:**	>1
pH:	Not applicable	**Relative density:**	1.045 @ 25°C
Melting/freezing point:	-54.4 F / -48°C	**Solubility:**	Reacts slowly with water yielding methanol.
Initial boiling point and range:	437°F / 225°C	**Partition coefficient: n-octanol/water:**	0.75 estimated
Flash point:	266°F / 130°C	**Auto-ignition temperature:**	Not available
Evaporation rate:	Not available	**Decomposition temperature:**	Not available
Flammability:	Not flammable	**Viscosity:**	Not available
Explosive Properties:	None	**Oxidizing Properties:**	None

10. STABILITY AND REACTIVITY

Reactivity: May polymerize in contact with metallic copper and with UV light.

Chemical Stability: Stable under ambient conditions.
Possibility of Hazardous Reactions: None known.
Conditions to Avoid: Avoid elevated temperatures, free radical initiators and/or UV light.
Incompatible materials: Avoid oxidizing agents, acids and bases.
Hazardous Decomposition Products: Thermal decomposition may produce carbon and silicone oxides.

11. TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eyes: Direct contact may cause mild irritation with redness and tearing.

Skin: Prolonged or repeated skin contact may cause irritation.

Ingestion: Swallowing may cause nausea, vomiting and diarrhea. This material will hydrolyze to methanol in the gastrointestinal tract. Methanol ingestion may cause nervous system depression, abdominal pain, back pain, visual disturbances, kidney effects and coma.

Inhalation: None expected from normal use. This product contains less than 1% methanol but releases methanol vapors in contact with water or moisture in the air. Inhalation of methanol vapors may cause headache, dizziness, nausea, and visual disturbances.

Chronic Health Effects: None known from exposure to trimethoxysilylpropyl methacrylate. Chronic exposure to methanol may cause nervous system effects and eye damage.

Carcinogenicity: None of the other components of this product are listed as a carcinogen by OSHA, IARC, ACGIH, NTP or EU Directives.

Mutagenicity: Trimethoxysilylpropyl methacrylate was negative in the AMES test and in the Chinese Hamster Ovary assay.

Medical Conditions Aggravated by Exposure: None known.

Acute Toxicity Data:

Trimethoxysilylpropyl methacrylate: Oral Rat LD50 23.5 g/kg

Reproductive Toxicity Data: Trimethoxysilylpropyl methacrylate: No data available.

Specific Target Organ Toxicity (STOT):

Single Exposure: Applied to the skin and mouth mucosa of rats, gamma-methacryloxypropyl trimethoxysilane had no effect.

Repeated Exposure: No data available

12. ECOLOGICAL INFORMATION

Toxicity:
Trimethoxysilylpropyl methacrylate: No data available

Persistence and Degradability: Biodegradation data is not available.

Bio-accumulative Potential: Trimethoxysilylpropyl methacrylate has an estimated BCF of 3.2 which suggests the potential for bioconcentration in aquatic organisms is low.

Mobility in Soil: Trimethoxysilylpropyl methacrylate is expected to have low mobility in soil.

Other Adverse Effects: None known.

Results of PBT/vPvB Assessment: Not required.

13. DISPOSAL CONSIDERATIONS

Regulations: Dispose in accordance with local and national environmental regulations

Properties (Physical/Chemical) Affecting Disposal: None known.

Waste Treatment Recommendations: None needed for normal anticipated use.

14. TRANSPORT INFORMATION

UN-Number	ADR/RID: None	IMDG: None	IATA: None	DOT: None
UN proper shipping name	ADR/RID: Not Regulated IMDG: Not Regulated IATA: Not Regulated DOT: Not Regulated			
Transport hazard class(es)	ADR/RID: None	IMDG: None	IATA: None	DOT: None
Packaging group	ADR/RID: None	IMDG: None	IATA: None	DOT: None
Environmental hazards	ADR/RID: No	IMDG Marine pollutant: No	IATA: No	DOT: No

Special precautions for user: Not applicable

15. REGULATORY INFORMATION

U.S. Federal Regulations

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA): This product is not subject to CERCLA reporting requirements. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

Toxic Substances Control Act (TSCA): This product is a medical device and not subject to chemical notification requirements.

Clean Water Act (CWA): Not Listed

Clean Air Act (CAA): Not Listed

Superfund Amendments and Reauthorization Act (SARA) Title III Information:

SARA Section 311/312 (40 CFR 370) Hazard Categories:

Immediate Hazard:	**No**	**Pressure Hazard:**	**No**
Delayed Hazard:	**No**	**Reactivity Hazard:**	**No**
Fire Hazard:	**No**		

This product contains the following toxic chemical(s) subject to reporting requirements of SARA Section 313 (40 CFR 372):

Components	C.A.S. #	WT %
None		

State Regulations

California: This product contains the following chemicals(s) known to the State of California to cause cancer, birth defects or reproductive harm:

Components	C.A.S. #	WT %
None		

International Regulations

EU REACH: The substances in this product comply with the EU REACH regulation as applicable.

16. OTHER INFORMATION

Full text of Classification abbreviations used in Section 2 and 3:
None

Date of SDS Preparation/Revision: 16 July 2013

Data Sources: US NLM ChemID Plus and HSDB, Substance SDS for components, IUCLID Dataset EU Chemical Bureau, ESIS, Country websites for occupational exposure limits.