



SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS, the Korean ISHA (Notice 2009-68), the Japanese Industrial Standard JIS Z 7250: 2000, Mexican NOM018-STPS 2000, SPRING Singapore, and the Global Harmonization Standard

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY UNDERTAKING

IDENTIFICATION OF THE MIXTURE

TRADE/MATERIAL NAME:
RELEVANT USE of the SUBSTANCE:
USES ADVISED AGAINST:
SUPPLIER/MANUFACTURER'S NAME:

Address:

Business Phone:

Emergency Phone:

MSL Marine Silicone Sealant

Firestop and Sound Transmission

None

Specified Technologies Inc.

210 Evans Way,

Somerville, New Jersey 08876

(908) 526-8000 (8:00am to 5:00pm Eastern Standard Time)

U.S., Canada: 1-800-255-3924 (24 hrs)

International: +1-813-248-0585 (collect-24 hrs)

EMAIL of Competent Person for Information on SDS:

techserv@stifiestop.com

NOTE: ALL United States Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalent Standards, Canadian WHMIS [Controlled Products Regulations], Mexican NOM018-STPS 2000, SPRING Singapore, and Japanese JIS Z7250 required information is included in appropriate sections based on the U.S. ANSI Z400.1-2010 format. This product has been classified in accordance with the hazard criteria of the countries listed above.

This SDS contains only readily available information from original manufacture. Other hazards may be possible, but cannot be determined due to proprietary nature of formulation.

2. HAZARD IDENTIFICATION

GLOBAL HARMONIZATION AND JAPANESE JIS Z7253 LABELING AND CLASSIFICATION: This product has been classified per UN GHS Standards under U.S., Japanese and other applicable regulations that require Global Harmonization compliance.

Classification: Reproductive Toxicity Category 2, Aquatic Chronic Toxicity Category 4

Signal Word: Warning

Hazard Statements: H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child. H413: May cause long-lasting harmful effects to aquatic life.

Precautionary Statements:

Prevention: P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P273: Avoid release to the environment. P280: Wear protective gloves, clothing, eye protection and face protection. P284: Wear respiratory protection.

Response: P308 + P313: IF exposed or concerned: Get medical advice/attention. P321: Specific treatment (remove from exposure and treat symptoms).

Storage: P405: Store locked up.

Disposal: P501: Dispose of contents/containers in accordance with all local, regional, national and international regulations.

Hazard Symbols: GHS08



KOREAN ISHA (Notice 2009-68) LABELING AND CLASSIFICATION: Classified in accordance with ISHA Notice 2009-68. Under ISHA, no differences in classification are applicable.

3. COMPOSITION and INFORMATION ON INGREDIENTS

Hazardous Components:

Chemical Name	CAS #	Chinese IECSC Inventory	Japanese ENCS #	Korean ECL Inventory #	Taiwan NESCI ECS Inventory	WT%	LABEL ELEMENTS GHS & Japanese JIS Z7253 Classification Korean ISHA Classification GHS Hazard Codes
Octamethylcyclotetrasiloxane	556-67-2	Listed	7-475	KE-26606	Listed	0.1-1.0%	PUBLISHED and SELF CLASSIFICATION GHS & JAPANESE JIS Z7253 & KOREAN ISHA: Classification: Flammable Liquid Cat. 3, Reproductive Toxicity Cat. 2, Acute Oral Toxicity Cat. 4, Acute Dermal Toxicity Cat. 4, Acute Inhalation Toxicity Cat. 4, Aquatic Chronic Toxicity Cat. 4 Hazard Codes: H226, H361fd, H302 + H312 + H332, H413

4. FIRST-AID MEASURES

DESCRIPTION OF FIRST AID MEASURES: Contaminated individuals must be taken for medical attention if any adverse effects occur. Remove contaminated clothing and shoes. Take a copy of this SDS to health professional with victim. Wash clothing and thoroughly clean shoes before reuse. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Take a copy of label and SDS to physician or health professional with the contaminated individual.

Skin Exposure: If adverse skin effects occur, discontinue use and flush contaminated area.

Inhalation: If fumes or vapors are inhaled, remove victim to fresh air. Seek medical attention if adverse effect continues after removal to fresh air.

Eye Exposure: If this product contaminates the eyes, rinse eyes under gently running water. Use sufficient force to open eyelids and then "roll" eyes while flushing. Minimum flushing is for 20 minutes. **Ingestion:** If this product is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, DO NOT INDUCE VOMITING. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: It is currently not known if any pre-existing conditions may be aggravated by overexposures to this product.

5. FIRE-FIGHTING MEASURES

FLASH POINT (est.): 226 C (438 F)

AUTOIGNITION TEMPERATURE: Not available.

FLAMMABLE LIMITS (in air by volume, %): Not available.

FIRE EXTINGUISHING MEDIA: Use extinguishing materials suitable for the surrounding area.

UNSUITABLE FIRE EXTINGUISHING MEDIA: None known.

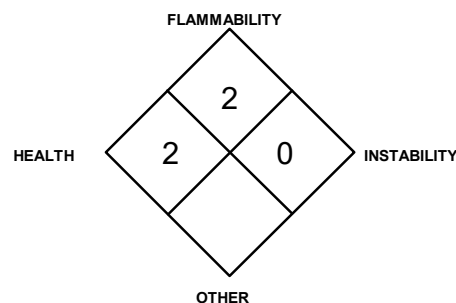
UNUSUAL FIRE AND EXPLOSION HAZARDS: This product is combustible and may ignite if highly heated for a prolonged period or if subjected to direct flame. When involved in a fire, this material may decompose and produce irritating vapors and toxic gases (e.g., carbon and silicon oxides, formic acid, formaldehyde and other unknown compounds).

Explosion Sensitivity to Mechanical Impact: Not sensitive.

Explosion Sensitivity to Static Discharge: Not sensitive.

SPECIAL PROTECTIVE ACTIONS FOR FIRE-FIGHTERS: No Special protective actions for fire-fighters are anticipated

NFPA RATING



Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate
3 = Serious 4 = Severe

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS AND EMERGENCY PROCEDURES: Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. Call CHEMTREC (1-800-424-9300) for emergency assistance. Or if in Canada, call CANUTEC (613-996-6666).

PERSONAL PROTECTIVE EQUIPMENT: Proper protective equipment should be used.

Small Spills: Wear rubber gloves, splash goggles, and appropriate body protection.

Large Spills: Minimum Personal Protective Equipment should be rubber gloves, rubber boots, splash goggles ,

METHODS FOR CLEAN-UP AND CONTAINMENT: Spills of this product present minimal hazard.

Small Spills: Small releases can be carefully swept up or cleaned up using a damp sponge or polypads.

Large Spills: Access to the spill area should be restricted. For large spills, dike or otherwise contain spill and sweep-up or vacuum with non-sparking vacuum.

All Spills: Place all spill residue in a double plastic bag or other containment and seal.. Rinse area with soap and water solution and follow with a water rinse. Decontaminate the area thoroughly. Do not mix with wastes from other materials. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations). For spills on water, contain, minimize dispersion and collect. Dispose of recovered material and report spill per regulatory requirements.

ENVIRONMENTAL PRECAUTIONS: Avoid release to the environment. Run-off water may be contaminated by other materials and should be contained to prevent possible environmental damage.

7. HANDLING and USE

PRECAUTIONS FOR SAFE HANDLING: As with all chemicals, avoid getting this material ON YOU or IN YOU. Do not eat, drink, smoke, or apply cosmetics while handling this product. Wash hands thoroughly after handling this product or containers of this product. Avoid breathing fumes or vapors generated by this product. Use in a well-ventilated location.

CONDITIONS FOR SAFE STORAGE: Store containers in a cool, dry location, away from direct sunlight, sources of intense heat. The recommended storage temperature is < 27°C (< 80°F).

SPECIFIC END USE(S): This product is for use as a sealant. Follow all industry standards for use of this product.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures). Make certain that application equipment is locked and tagged-out safely, if necessary. Collect all rinsates and dispose of according to applicable Federal, State, and local procedures.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

EXPOSURE LIMITS/CONTROL PARAMETERS:

Ventilation and Engineering Controls: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided below (if applicable). Exhaust directly to the outside, taking necessary precautions for environmental protection.

Workplace Exposure Limits/Control Parameters:

CHEMICAL NAME	CAS #	EXPOSURE LIMITS IN AIR							
		ACGIH-TLVs		OSHA-PELs		NIOSH-RELs		NIOSH	OTHER
		TWA mg/m ³	STEL mg/m ³	TWA mg/m ³	STEL mg/m ³	TWA mg/m ³	STEL mg/m ³	IDLH mg/m ³	mg/m ³
Octamethylcyclotetrasiloxane	556-67-2	NE	NE	NE	NE	NE	NE	NE	MFG REL: 5 ppm
Proprietary Ingredient		No Available Information							

NE = Not Established. See Section 16 for Definitions of Other Terms Used

International Occupational Exposure Limits: Currently, no additional exposure limit values have been established by various countries for the known component of this mixture. More current limits may be available; individual countries should be consulted to determine if newer limits are available.

PROTECTIVE EQUIPMENT: *The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132, including U.S. Federal OSHA Respiratory Protection (29 CFR 1910.134), OSHA Eye Protection 29 CFR 1910.133, OSHA Hard Protection 29 CFR 1910.138, OSHA Foot Protection 29 CFR 1910.136 and OSHA Body Protection 29 CFR 1910.132), equivalent standards of Canada (including CSA Respiratory Standard Z94.4-02, Z94.3-M1982, Industrial Eye and Face Protectors and CSA Standard Z195-02, Protective Footwear), or standards of Japan (including JIS T 8116:2005 for glove selection, JIS T 8150:2006 for respiratory PPE, JIS T 8147:2003 for eye protectors, and JIS T 8030:2005 for protective clothing). Please reference applicable regulations and standards for relevant details.*

Respiratory Protection: Maintain airborne contaminant concentrations below exposure limits listed above, if applicable. For materials without listed exposure limits, minimize respiratory exposure

Eye Protection: Wear safety glasses.

Hand Protection: During manufacture or other similar operations, wear the appropriate hand protection for the process. Use double gloves for spill response, as stated in Section 6 (Accidental Release Measures) of this SDS. Skin Protection: Use appropriate protective clothing for the task.

9. PHYSICAL and CHEMICAL PROPERTIES

FORM: Paste.

MOLECULAR FORMULA: Mixture.

ODOR: Sweet.

FLAMMABLE LIMITS (in air by volume, %): Not available.

DECOMPOSITION TEMPERATURE: Not available.

AUTOIGNITION TEMPERATURE: Not available.

FREEZING/MELTING POINT: Not available.

VAPOR PRESSURE: Not available.

VOLATILE ORGANIC COMPOUNDS (w/w): < 1.9%; 20 g/L

EVAPORATION RATE (n-BuAc = 1): > 1

SOLUBILITY IN WATER: Insoluble.

COEFFICIENT WATER/OIL DISTRIBUTION: Not established.

VISCOSITY: Dynamic: Not available. Kinematic @ 40°C: > 20.5 mm²/s

HOW TO DETECT THIS SUBSTANCE (warning properties in event of accidental release): The viscous appearance and sweet odor may be characteristics to distinguish a release of this product.

COLOR: Concrete (limestone)

MOLECULAR WEIGHT: Mixture.

ODOR THRESHOLD: Not available.

OXIDIZING PROPERTIES: Not applicable.

PERCENT VOLATILE: Not available.

FLASH POINT (est.): 226°C (438°F)

BOILING POINT: > 100°C (> 212°F)

SPECIFIC GRAVITY (water = 1): 1.4 g/cm³

VAPOR DENSITY (air = 1): Not available.

VOC (U.S. EPA Method 24): 20 g/L

SOLUBILITY IN SOLVENTS: Soluble in toluene.

pH: Not available.

10. STABILITY and REACTIVITY

CHEMICAL STABILITY: This product is stable when properly stored at normal temperature and pressures (see Section 7, Handling and Storage). Contact with water causes this product to cure.

DECOMPOSITION PRODUCTS: Combustion: Formaldehyde, formic acid, carbon and silicon oxides and other unknown compounds. Hydrolysis: None known.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: This product is incompatible with strong oxidizers.

POSSIBILITY OF HAZARDOUS POLYMERIZATION OR REACTION: Will not occur.

CONDITIONS TO AVOID: Avoid exposure to or contact with extreme temperatures and incompatible chemicals.

11. TOXICOLOGICAL INFORMATION

SYMPTOMS OF EXPOSURE BY ROUTE OF EXPOSURE: The health hazard information provided below is pertinent to employees using this product in an occupational setting. The following paragraphs describe the symptoms of exposure by route of exposure.

Inhalation: Inhalation of fumes or vapors may cause irritation of the nose, throat, and lungs and cause coughing. Removal to fresh air should relieve symptoms.

Contact with Skin or Eyes: Direct eye contact may cause transient irritation, redness, and tearing from irritation. Prolonged or repeated skin exposures may cause dermatitis (dry red skin).

Skin Absorption: Components are not known to be absorbed through intact skin.

Ingestion: Ingestion is not a significant route of occupational exposure and is unlikely to occur.

Injection: Accidental injection of this product, via laceration or puncture by a contaminated object can cause redness at the site of injection.

HEALTH EFFECTS OR RISKS FROM EXPOSURE: Exposure to this product may cause the following health effects:

Acute: Inhalation of fumes or vapors may cause irritation of respiratory system. Eye contact may cause irritation.

Chronic: Prolonged or repeated skin exposure may cause dermatitis (dry red skin). This product contains a trace compound that may have adverse effect on fertility, or the fetus, based on animal data.

TARGET ORGANS: Acute: Skin, eyes, respiratory system. Chronic: Skin.

TOXICITY DATA: Currently, the following toxicological data are available for known components of 1% or more concentration.



HAZARDOUS MATERIAL IDENTIFICATION SYSTEM

HEALTH HAZARD	(BLUE)	2*
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FLAMMABILITY HAZARD	(RED)	1
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PHYSICAL HAZARD	(YELLOW)	0
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PROTECTIVE EQUIPMENT

EYES	RESPIRATORY	HANDS	BODY
	SEE SECTION 8		SEE SECTION 8

For Routine Industrial Use and Handling Applications

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate
3 = Serious 4 = Severe * = Chronic hazard

OCTAMETHYLCYCLOTETRAILOXANE:

Standard Draize Test (Skin-Rabbit) 500 mg/24 hours: Mild

Standard Draize Test (Eye-Rabbit) 500 mg/24 hours: Mild

LC₅₀ (Inhalation-Rat) 36 gm/m³/4 hours: Behavioral: excitement; Lungs, Thorax, or Respiration: dyspnea Skin and Appendages: hair

LD₅₀ (Oral-Rat) 1540 mg/kg: Behavioral: tremor

LD₅₀ (Skin-Rat) 1770 mg/kg: Behavioral: tremor; Gastrointestinal: changes in structure or function of salivary glands; Liver: other changes

LD₅₀ (Skin-Rabbit) 794 µL/kg: Kidney/Ureter/Bladder: hematuria

TCLo (Inhalation-Rat) 700 ppm/6 hours: Endocrine: changes in gonadotropins

TCLo (Inhalation-Rat) 300 ppm/6 hours/13 weeks-intermittent: Liver: changes in liver weight

TCLo (Inhalation-Rat) 700 ppm/6 hours/4 weeks-intermittent: Liver: changes in liver weight; Nutritional and Gross Metabolic: weight loss or decreased weight gain; Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: cytochrome oxidases (including oxidative phosphorylation)

TCLo (Inhalation-Rat) 70 ppm/6 hours/4 weeks-intermittent: Liver: other changes, changes in liver weight; Endocrine: changes in thyroid weight

TCLo (Inhalation-Rat) 35 ppm/6 hours/91 days-intermittent: Blood: changes in serum composition (e.g. TP, bilirubin, cholesterol); Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: multiple enzyme effects

TCLo (Inhalation-Rat) 898 ppm/6 hours/91 days-intermittent: Lungs, Thorax, or Respiration: other changes; Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: multiple enzyme effects, Metabolism (Intermediary): lipids including transport

OCTAMETHYLCYCLOTETRAILOXANE (continued):

TCLo (Inhalation-Rat) 700 ppm/104 weeks-intermittent: Liver: changes in liver weight; Kidney/Ureter/Bladder: other changes, changes in kidney weight

TCLo (Inhalation-Rat) 488 ppm/6 hours/91 days-intermittent: Lungs, Thorax, or Respiration: other changes; Blood: normocytic anemia; Related to Chronic Data: changes in testicular weight

TCLo (Inhalation-Rat) 488 ppm/6 hours/91 days-intermittent: Liver: changes in liver weight; Kidney/Ureter/Bladder: changes in kidney weight; Endocrine: changes in thymus weight

TCLo (Inhalation-Rat) 898 ppm/6 hours/91 days-intermittent: Endocrine: changes in adrenal weight; Related to Chronic Data: death Related to Chronic Data: changes in ovarian weight

TCLo (Inhalation-Rat) 700 ppm/104 weeks-intermittent: Nutritional and Gross Metabolic: weight loss or decreased weight gain; Related to Chronic Data: death

TCLo (Inhalation-Rat) 700 ppm/52 weeks-intermittent: Liver: other changes

TCLo (Inhalation-Rat) 30 ppm/26 weeks-intermittent: Liver: changes in liver weight

TCLo (Inhalation-Rat) 150 ppm/104 weeks-intermittent: Kidney/Ureter/Bladder: other changes, changes in kidney weight

TCLo (Inhalation-Rat) 700 ppm/52 weeks-intermittent: Kidney/Ureter/Bladder: other changes, changes in kidney weight

TCLo (Inhalation-Rat) 700 ppm/104 weeks-intermittent: Reproductive: Maternal Effects: uterus, cervix, vagina; Tumorigenic effects: uterine tumors; Related to Chronic Data: changes in uterine weight

11. TOXICOLOGICAL INFORMATION (Continued)

TOXICITY DATA (continued):

OCTAMETHYLCYCLOTETRASILOXANE (continued):

TCLo (Inhalation-Rat) 700 ppm/52 weeks-intermittent: Sense Organs and Special Senses (Olfaction): effect, not otherwise specified; Skin and Appendages: primary irritation (after topical exposure)

TCLo (Inhalation-Rat) 700 ppm/13 weeks-intermittent: Blood: changes in other cell count (unspecified)

TCLo (Inhalation-Rat) 150 ppm/52 weeks-intermittent: Liver: changes in liver weight

TCLo (Inhalation-Rat) 700 ppm/3 days-intermittent: Endocrine: estrogenic; Related to Chronic Data: changes in uterine weight

TCLo (Inhalation-Rat) 700 ppm/6 hours/3 days-intermittent: Endocrine: changes in luteinizing hormone; Reproductive: Maternal Effects: oogenesis

TCLo (Inhalation-Rat) 700 ppm/35 days-intermittent: Endocrine: estrogenic; Reproductive: Maternal Effects: oogenesis, ovaries, fallopian tubes

TCLo (Inhalation-Rat) 700 ppm/16 hours/3 days-intermittent: Endocrine: estrogenic; Reproductive: Maternal Effects: uterus, cervix, vagina; Related to Chronic Data: changes in uterine weight

TCLo (Inhalation-Rat) 698 ppm/6 hours/47 days-intermittent: Endocrine: changes in adrenal weight; Nutritional and Gross Metabolic: weight loss or decreased weight gain

TCLo (Inhalation-Rat) 696 ppm/6 hours/6 days-intermittent: Nutritional and Gross Metabolic: weight loss or decreased weight gain

TCLo (Inhalation-Rat) 700 ppm/6 hours/3 days-intermittent: Nutritional and Gross Metabolic: weight loss or decreased weight gain

TCLo (Inhalation-Rat) 500 ppm/6 hours/16 weeks-intermittent: Related to Chronic Data: death

TCLo (Inhalation-Rat) 700 ppm/6 hours/84 days-intermittent: Behavioral: food intake (animal); Nutritional and Gross Metabolic: weight loss or decreased weight gain

TCLo (Inhalation-Rat) 700 ppm/6 hours/1 week-intermittent: Kidney/Ureter/Bladder: changes in kidney weight; Nutritional and Gross Metabolic: weight loss or decreased weight gain

TCLo (Inhalation-Rat) 300 ppm/6 hours/70 days-intermittent: Liver: changes in liver weight

TCLo (Inhalation-Rat) 700 ppm/6 hours/70 days-intermittent: Endocrine: changes in pituitary weight

TCLo (Inhalation-Rat) 500 ppm/6 hours/96 days-intermittent: Liver: changes in liver weight

TCLo (Inhalation-Rat) 700 ppm/6 hours/96 days-intermittent: Lungs, Thorax, or Respiration: other changes

TCLo (Inhalation-Rat) 696 ppm/6 days-intermittent: Related to Chronic Data: changes in ovarian weight

TCLo (Inhalation-Rat) 500 ppm: male 70 day(s) pre-mating female 70 day(s) pre-mating: 3 week(s) post-birth: Reproductive: Effects on Newborn: live birth index (measured after birth)

TCLo (Inhalation-Rat) 698 ppm: female 28 day(s) pre-mating 19 day(s) after conception: Reproductive: Effects on Embryo or Fetus: fetotoxicity (except death, e.g., stunted fetus)

TCLo (Inhalation-Rat) 301 ppm: female 28 day(s) pre-mating 19 day(s) after conception: Reproductive: Maternal Effects: oogenesis

TCLo (Inhalation-Rat) 700 ppm: multi-generations: Reproductive: Specific Developmental Abnormalities: respiratory system; Effects on Newborn: behavioral

OCTAMETHYLCYCLOTETRASILOXANE (continued):

TCLo (Inhalation-Rat) 503 ppm: female 28 day(s) pre-mating 19 day(s) after conception: Reproductive: Fertility: pre-implantation mortality (e.g. reduction in number of implants per female; total number of implants per corpora lutea); Effects on Embryo or Fetus: fetal death

TCLo (Inhalation-Rat) 696 ppm: female 3 day(s) pre-mating 3 day(s) after conception: Reproductive: Maternal Effects: oogenesis; Fertility: pre-implantation mortality (e.g. reduction in number of implants per female; total number of implants per corpora lutea); Effects on Embryo or Fetus: fetal death

TCLo (Inhalation-Rat) 700 ppm: female 1 day(s) pre-mating: Reproductive: Fertility: female fertility index (e.g. # females pregnant per # sperm positive females; # females pregnant per # females mated)

TCLo (Inhalation-Rat) 700 ppm: female 3 day(s) pre-mating 3 day(s) after conception: Reproductive: Maternal Effects: ovaries, fallopian tubes; Effects on Embryo or Fetus: fetotoxicity (except death, e.g., stunted fetus)

TCLo (Inhalation-Rat) 700 ppm: male 70 day(s) pre-mating female 70 day(s) pre-mating lactating female 4 day(s) post-birth: Reproductive: Fertility: pre-implantation mortality (e.g. reduction in number of implants per female; total number of implants per corpora lutea); Specific Developmental Abnormalities: urogenital system

TCLo (Inhalation-Rat) 700 ppm: multi-generations: Reproductive: Effects on Newborn: viability index (e.g., # alive at day 4 per # born alive); Specific Developmental Abnormalities: urogenital system; Effects on Newborn: growth statistics (e.g.%, reduced weight gain)

TCLo (Inhalation-Rat) 70 ppm: male 70 day(s) pre-mating female 70 day(s) pre-mating 1-22 day(s) after conception: Reproductive: Fertility: litter size (e.g. # fetuses per litter; measured before birth)

TCLo (Inhalation-Rat) 70 ppm: male 70 day(s) pre-mating: Reproductive: Paternal Effects: spermatogenesis (incl. genetic material, sperm morphology, motility, and count)

TCLo (Inhalation-Rat) 300 ppm: Multi-generations: Reproductive: Specific Developmental Abnormalities: hepatobiliary system, urogenital system

TCLo (Inhalation-Rat) 500 ppm: male 70 day(s) pre-mating female 70 day(s) pre-mating lactating female 4 day(s) post-birth: Reproductive: Effects on Newborn: viability index (e.g., # alive at day 4 per # born alive)

TCLo (Inhalation-Mouse) 697 ppm/6 hours/28 days-intermittent: 697 ppm/6 hours/28 days-intermittent: Liver: changes in liver weight

TCLo (Inhalation-Mouse) 697 ppm/6 hours/28 days-intermittent: Liver: changes in liver weight

TDLo (Oral-Rat) 4200 mg/kg/14 days-intermittent: Liver: changes in liver weight; Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: hepatic microsomal mixed oxidase (dealkylation, hydroxylation, etc.)

TDLo (Oral-Mouse) 750 mg/kg/3 days-intermittent: Endocrine: estrogenic; Related to Chronic Data: changes in uterine weight

TDLo (Unreported-Mouse) 100 mg/kg: Endocrine: other changes

TDLo (Unreported-Mouse) 250 mg/kg: Reproductive: Maternal Effects: uterus, cervix, vagina

TDLo (Unreported-Mouse) 1000 mg/kg: Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: other oxidoreductases

IRRITANCY OF PRODUCT: Inhalation of fumes or vapors may cause respiratory irritation. Eye contact may cause irritation. Prolonged skin contact may cause irritation.

SENSITIZATION OF PRODUCT: This product is not currently known to cause allergic skin or respiratory reaction.

CARCINOGENIC POTENTIAL OF COMPONENTS: The known components are not found on the following lists: U.S. EPA, U.S. NTP, U.S. OSHA, U.S. NIOSH, GERMAN MAK, IARC, or ACGIH and therefore is neither considered to be nor suspected to be a cancer-causing agent by these agencies.

REPRODUCTIVE TOXICITY INFORMATION: The known components have no mutagenic potential. The following information is available for the Octamethylcyclotetrasiloxane component.

Embryotoxicity/Teratogenicity: In animal studies, Octamethylcyclotetrasiloxane has shown adverse effects on embryo or fetus, including fetotoxicity, reduced weight gain, stunted fetus, fetal death, specific developmental abnormalities to urogenital, hepatobiliary and respiratory systems.

Reproductive Toxicity: In animal studies, Octamethylcyclotetrasiloxane has shown adverse effects on fertility, including pre-implantation mortality (e.g. reduction in number of implants per female; total number of implants per corpora lutea), oogenesis in females, effects on ovaries, fallopian tubes, and paternal effects including spermatogenesis (incl. genetic material, sperm morphology, motility, and count).

ACGIH BIOLOGICAL EXPOSURE INDICES (BEIs): Currently, there are no ACGIH Biological Exposure Indices (BEIs) determined for this material.

DEGREE OF EFFECT TO THE HEALTH OF THE POLLUTING AGENT OF ENVIRONMENT OF WORK (per Mexican NOM-010 STPS-1999): 0

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

MOBILITY: This product has not been tested for mobility in soil.

PERSISTENCE AND BIODEGRADABILITY: This product has not been tested for persistence or biodegradability. The mineral components are not expected to biodegrade to great extent.

BIO-ACCUMULATION POTENTIAL: This product has not been tested for bio-accumulation potential. The Octamethylcyclotetrasiloxane component has a high bioconcentration potential; information is available as follows.

OCTAMETHYLCYCLOTETRASILOXANE:

The Koc of Octamethylcyclotetrasiloxane is estimated as 14,000, using a log Kow of 5.1 and a regression-derived equation. According to a classification scheme, this estimated Koc value suggests that Octamethylcyclotetrasiloxane is expected to be immobile in soil.

12. ECOLOGICAL INFORMATION (Continued)

ECOTOXICITY: This product has not been tested for aquatic or animal toxicity. All releases to terrestrial, atmospheric and aquatic environments should be avoided. The following are aquatic toxicity data for the Octamethylcyclotetrasiloxane.

OCTAMETHYLCYCLOTETRAILOXANE:

LC₅₀ (*Oncorhynchus mykiss* Rainbow trout) 14 days = 10 µg/L/ (95% confidence limit: 8.5-13 µg/L); flow through
LC₅₀ (*Lepomis macrochirus* Bluegill) 96 hours = > 1000 mg/L/Conditions of bioassay not specified in source examined
LC₅₀ (*Brachydanio rerio* Zebra danio) 96 hours = >500 mg/L/Conditions of bioassay not specified in source examined

OTHER ADVERSE EFFECTS: This material is not listed as having ozone depletion potential.

ENVIRONMENTAL EXPOSURE CONTROLS: Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS: It is the responsibility of the generator to determine at the time of disposal whether the product meets the criteria of a hazardous waste per regulations of the area in which the waste is generated and/or disposed of. Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Shipment of wastes must be done with appropriately permitted and registered transporters.

DISPOSAL CONTAINERS: Waste materials must be placed in and shipped in appropriate 5-gallon or 55-gallon poly or metal waste pails or drums. Permeable cardboard containers are not appropriate and should not be used. Ensure that any required marking or labeling of the containers be done to all applicable regulations.

PRECAUTIONS TO BE FOLLOWED DURING WASTE HANDLING: Wear proper protective equipment when handling waste materials.

U.S. EPA WASTE NUMBER: Not applicable.

14. TRANSPORTATION INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION REGULATIONS: This product is not classified as dangerous goods, per U.S. DOT regulations, under 49 CFR 172.101.

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: This product is not classified as Dangerous Goods, per regulations of Transport Canada.

INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA): This product is not classified as dangerous goods under rules of IATA.

INTERNATIONAL MARITIME ORGANIZATION (IMO) DESIGNATION: This product is not classified as Dangerous Goods by the International Maritime Organization.

OFFICIAL MEXICAN STANDARD: REGULATION FOR THE TRANSPORT OF DANGEROUS GOODS AND RESIDUES: This product is not classified as Dangerous Goods, per transport regulations of Mexico.

SINGAPORE STANDARD 286: PART A: This product has no requirements under the Specification for Caution Labeling for Hazardous Substances, Part 4: Marking of Packages, Containers and Vehicles, as it does not meet the criteria for any hazard class under this regulation.

TRANSPORT IN BULK ACCORDING TO THE IBC CODE: See the information under the individual jurisdiction listings for IBC information.

ENVIRONMENTAL HAZARDS: This material does not meet the criteria of environmentally hazardous according to the criteria of the UN Model Regulations (as reflected in the IMDG Code, ADR, RID, and ADN) and is not listed in Annex III under MARPOL 73/78.

15. REGULATORY INFORMATION

UNITED STATES REGULATIONS:

U.S. SARA Reporting Requirements: The Octamethylcyclotetrasiloxane component is not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act. It cannot be determined if there are requirements for unknown components.

U.S. SARA Hazard Categories (Section 311/312, 40 CFR 370-21): ACUTE: Yes; CHRONIC: No; FIRE: No; REACTIVE: No; SUDDEN RELEASE: No

U.S. SARA Threshold Planning Quantity (TPQ): There are no specific Threshold Planning Quantities for known components. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lb (4,540 kg) may apply, per 40 CFR 370.20.

U.S. CERCLA Reportable Quantity (RQ): Not applicable for known components.

U.S. TSCA Inventory Status: The Octamethylcyclotetrasiloxane component is listed on the TSCA Inventory. It cannot be determined if the unknown components are listed.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): The Carbon Black component (airborne, unbound particles of respirable size) and Titanium Dioxide (airborne, unbound particles of respirable size) are found on the Proposition 65 List of chemicals known to the state to cause cancer. However due to the form of the product, the Proposition 65 warning for these components is not applicable.

15. REGULATORY INFORMATION (continued)

CANADIAN REGULATIONS:

Canadian DSL/NDSL Inventory Status: The Octamethylcyclotetrasiloxane component is listed on the DSL Inventory. It cannot be determined if other unknown components are on the DSL or NDSL Inventories.

Canadian Environmental Protection Act (CEPA) Priorities Substances Lists: The Octamethylcyclotetrasiloxane component is not on the CEPA Priorities Substances Lists. It cannot be determined if other unknown components are on the lists.

Canadian WHMIS Classification and Symbols: This product would be categorized as a Controlled Product, D2B (Other Toxic Effects-Potential Reproductive Effect) as per the Controlled Product Regulations.



CHINESE REGULATIONS:

Chinese Inventory of Existing Chemical Substances Status: Components listed by CAS# are listed on the Chinese Inventory of Existing Chemical Substances (IECSC), or are not listed, per information in Section 2.

JAPANESE REGULATIONS:

Japanese ENCS: Components listed by CAS# are on the ENCS Inventory, are excepted, or are not listed, per information in Section 2.

Japanese Ministry of Economy, Trade, and Industry (METI) Status: Components listed by CAS# are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese METI, per information in Section 2.

Poisonous and Deleterious Substances Control Law: Components listed by CAS# are not listed as a Specified Poisonous Substance under the Poisonous and Deleterious Substances Control Law, per information in Section 2.

KOREAN REGULATIONS:

Korean Existing Chemicals List (ECL) Status: Components listed by CAS# are listed on the Korean ECL Inventory, per information in Section 2.

MEXICAN REGULATIONS:

Mexican Workplace Regulations (NOM-018-STPS-2000): This product is classified as hazardous.

SINGAPORE REGULATIONS:

List of Controlled Hazardous Substances: Components listed by CAS# in Section 2, are not listed on the Singapore List of Controlled Substances.

Code of Practice On Pollution Control Requirements: The components identified by CAS# in Section 2 (Composition and Information on Ingredients) NOT are subject to the requirements under the Singapore Code of Practice on Pollution Control.

TAIWANESE REGULATIONS:

Taiwan Existing Chemical Substances Inventory Status: Components listed by CAS# in Section 2 are listed on the Taiwan Existing Chemicals List.

16. OTHER INFORMATION

COMPONENT CLASSIFICATION:

Labeling and Classification Full Text under GHS:

Octamethylcyclotetrasiloxane: This is a published and self-classification.

Classification: Reproductive Toxicity Category 2, Flammable Liquid Category 3, Acute Oral Toxicity Category 4, Acute Dermal Toxicity Category 4, Acute Inhalation Toxicity Category 4, Aquatic Chronic Toxicity Category 4

Hazard Statements: H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child. H302 + H312 + H332: Harmful if swallowed, in contact with skin or if inhaled. H413: May cause long-lasting harmful effects to aquatic life.

REFERENCES AND DATA SOURCES: Contact the supplier for information.

METHODS OF EVALUATING INFORMATION FOR THE PURPOSE OF CLASSIFICATION: Criteria of the GHS were used for classification.

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