Material Safety Data Sheet

CSL 160

General Contractor Silicone Sealant

csl silicones inc.

Reviewed 23-03-13

1 Product & Company Identification

Product Name	CSL 160 / General Contractor Silicone Sealant
Chemical Name	Not applicable
Chemical Formula	Silicone Sealant
Molecular Weight	Polymer
Material Uses	Sealant for sealing and weatherproofing.
Manufacturer	CSL Silicones Inc. 144 Woodlawn Road West, Guelph, ON, N1H 1B5 Canada
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2 Hazards Identification

A. HAZARDOUS INGREDIENTS OF MATERIAL	
Product releases acetic acid vapors when in contact with water or humid air. Ensure adequate ventilation during use to control acetic acid vapors within exposure limit (OSHA PEL = 10 ppm) or use respirator.	
B. EFFECTS OF CHRONIC EXPOSURE	
Health Effects	Pulmonary Edema, Dermatitis
Toxicological Data	LD50 of mixture (calculated) Ingestion/Rat 3900 mg/kg
Carcinogenicity Data	The ingredients of this product are not listed as carcinogens by National Toxicology Program, and have not been evaluated by the International Agency for Research on Cancer or the American Conference of Government Industrial Hygienists.
Reproductive Data	Octamethylcyclotetrasiloxane (in concentration of 500 to 700 ppm) has shown reproductive effects in laboratory animals. No available information of adverse reproductive effects of other ingredients of this product.
Mutagenicity Data	No information is available and no adverse mutagenic effects are anticipated
Teratogenicity Data	No information is available and no adverse teratogenic effects are anticipated
Synergistic Products	None known
Delayed Effects	None known
C. EFFECTS OF ACUTE EXPOSURE	
Inhalation	Not normally an inhalation hazard. Acetic acid vapors (by-product of curing reaction) may be irritating. Inhalation of concentrated vapors may cause serious damage to the lining of the nose, throat and lungs. Bronchopneumonia and pulmonary edema may develop following acute exposure.
Eye Contact	Concentrated acetic acid vapors can cause moderate irritation and burns.
Dermal (skin) Contact	Repeated exposure to acetic acid may cause irritation and thickening of the skin and dark coloration. Dermatitis may develop following acute overexposure.
Ingestion (swallowing)	Very low oral toxicity. May cause irritation and obstruction to gastro-intestinal tract.

D. HAZARD SYMBOLS	
	Harmful if Swallowed

3 Composition / Information on Ingredients

Ingredient	Wt %	CAS No.	ACGIH TLV	LD50
Amorphous Silica	5-10	7631-86-9	5 ppm	>5000 mg/kg (oral, rat)
Acetoxy Silane	1-5	13170-23-5	Not Established	>5000 mg/kg (oral, rat)
Acetoxy Silane	1-5	17689-77-9	10 ppm	2415 mg/kg (oral, rat)
Octamethylcyclo-tetrasiloxane	0.1-2	556-67-2	10 ppm	2000 mg/kg (oral, rat) 36 mg/L (inhale, rat, 4 hours)

4 First Aid Measures

Inhalation	The affected person should be removed to fresh air and made to rest. Obtain medical attention as a precaution. Treat symptomatically.
Eye Contact	Do not attempt to physically remove solids or gums from eye. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes, by the clock, holding the eyelid(s) open. Obtain medical attention immediately.
Dermal (skin) Contact	Remove contaminated clothing. Wash gently and thoroughly with water and non-abrasive soap. If symptoms persist, obtain medical attention. Contaminated clothing should be laundered before re-use.
Ingestion	Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. DO NOT INDUCE VOMITING. Have victim drink 8 to 10 oz. (240 to 300ml) of water to dilute material in stomach. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Repeat the administration of water. Obtain medical attention immediately.
First Aid	Provide general supportive measures (comfort, warmth, rest). Consult a physician and/or the nearest Poison Control Center for all exposures except minor instances of inhalation or skin contact. Solid or plastic material in the eye should be removed only by a physician.

5 Fire Fighting Measures

A. FIRE & EXPLOSION DATA	
Flash Point	83-84°C. P.M.C.C., ASTM D-93
Lower Explosive Limit %	Not applicable
Upper Explosive Limit %	Not applicable

Auto-ignition Temperature	No data
Fire Extinguishing Agents	Chemical Foam, Dry Chemical, CO_2
Unusual Fire/Explosion Hazard	None
Hazardous Combustion Products	Carbon dioxide, carbon monoxide, formaldehyde, silicon dioxide
B. FIRE FIGHTING PROCEDURES	
Sealant will burn if heated strongly. Water can be used to cool material below flash point. Sealant may emit noxious or toxic fumes. Self -Contained Breathing Apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires. Full Protective clothing to be worn.	

6 Accidental Release Measures

Spill & Leak Procedure	Restrict access to area of spill. Provide ventilation and protective clothing if needed. Scrape-up sealant with cardboard or rag and place in a container.
Waste Disposal	Review environmental regulations for disposal. Silicone wastes can often be incinerated in approved facilities. Solid waste may be sent to a designated landfill site.

7 Storage & Handling

Storage Conditions	Store in cool dry conditions. Keep container tightly sealed when not in use.
Handling Procedure	Acetic acid vapor will be liberated during application and curing. Adequate ventilation is required to maintain vapours below the TLV. DO NOT handle or store near an open flame, sources of heat, or sources of ignition. Cured CSL product requires no special precautions.

8 Exposure Control & Personal Protection

Acetic acid is released as curing by-product when in contact with humid air.

A. EXPOSURE LIMIT OF CURING BY-PRODUCT

Component	OSHA PEL	ACGIH TLV	Other Limits
Acetic Acid	10 ppm (TWA)	10 ppm (TWA) 15 ppm (STEL	None

B. PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection	Not required unless normal ventilation is inadequate. Use mask with filter for acetic acid vapor if ventilation is inadequate to prevent overexposure by inhalation
Eye/Face Protection	Chemical splash goggles
Dermal (skin) Protection	Gloves, coveralls and/or aprons may be useful to prevent contamination of skin or clothing
Resistance of Materials for Protective Clothing	No specific data. Most rubbers and plastics are adequate
Ventilation Requirements	Use of mechanical dilution ventilation to sufficiently maintain the concentration of acetic acid below the recommended occupational exposure limit whenever this material is used in a confined space or is heated above the normal temperature (up to 38°C).

9 Physical & Chemical Properties

Physical State	Thixotropic paste
Odor	Vinegar like or acetic acid odour
Odor Threshold	Not determined
pH	Not determined
Boiling Point	Not applicable
Freezing Point	Not applicable
Vapor Pressure (mm Hg)	Negligible @ 25˚C
Vapor Density (air = 1)	Not applicable
VOC Concentration	41.82 g/L (0.35 lb/gallon)
Specific Gravity (water = 1)	1.02
Solubility in Water	Insoluble
Solubility in Other Solvents	Soluble in most organic solvents
Evaporation Rate (butyl acetate = 1)	Not applicable
Decomposition Temperature	No determined

10 Stability & Reactivity

Product Stability	Stable
Hazardous Polymerization	Will not occur
Incompatible Materials	STRONG OXIDIZERS. CONCENTRATED ACIDS OR BASES cause degradation of polymer. Boiling water may soften and weaken material.
Hazardous Decomposition Products	Combustion will produce silicon dioxide, carbon dioxide and carbon monoxide. A component of this product can generate formaldehyde at approximately 150oC (300oF) and above in the atmosphere containing oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant and potential carcinogen

11 Toxicological Information

Toxicological Data	LD50 of mixture (calculated) Ingestion in rat 3,900mg/kg
Evidence of reproductive effects of Octamethylcyclotetrasiloxane in laboratory animals at concentrations of 500 and 700 ppm.	

12 Ecological Information

No data available

13 Disposal Consideration

Not classified as a Hazardous Waste.
Review local environmental regulations for disposal. Silicone wastes can often be incinerated in approved facilities. Solid waste may be sent to a designated landfill site.

14 Transport Information

TDG Information	Not regulated

15 Regulatory Information

WHMIS Classification	Class D: poisonous and infectious material Division 2: other toxic effects Subdivision B: toxic
RoHS Statement	CSL 160 Silicone Sealant does not contain Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent Chromium, Polybrominated Biphenyls (PBBs) and Polybrominated Diphenyl Ethers (PBDEs) as listed in RoHS Directives.
TSCA Status	All ingredients of this product are listed on the TSCA Inventory of Chemicals.
State of California Safe Drinking Water and Toxic Enforcement Act, 1986 (Proposition 65)	None of the ingredients of this product are listed in Proposition 65 as of December, 2006.
Canadian DSL Status	All ingredients of this product are listed on the Canadian DSL.

16 Additional Information & Sources Used

Date Issued:	May 01, 2007
Date Revised:	March 19, 2013
Prepared By:	Farooq AHMED, R&D Manager
Emergency Contact:	Baz MISTRY, Laboratory Manager or Farooq AHMED, R&D Manager
REFERENCES	1. American Conference of Governmental Industrial Hygienists Inc., Documentation of the Threshold Limit Values (TLV) and Biological Exposures Indices, 5th Edition, 1986, Cincinnati, OH. 2. Keith, L. H., et al, eds, Compendium of Safety Data Sheets for Research and Industrial Chemicals, Volume 2, 1985. 3. Sax, Irving, et al, Dangerous Properties of Industrial Materials, 1984, New York, NY. 4. Canadian Center for Occupational Health and Safety, CHEMINFO, Record #15E. 5. Material Safety Data Sheets from Cabot Corporation; Cab-O-Sil Division, Wacker-Chemie GMBH, ICI Europa Ltd. Specialty Chemicals. Kay-Fries Inc., Shin-Etsu Chemical Co. Ltd. 6. Canada's National Occupational Health & Safety Resources at www.ccohs.ca/oshanswers/legisl/whmis 7. Information from Health Canada Website at www.hc-sc.gc.ca/ahc-asc/intactiv/ghs-sgh/index_e.html 8. Information from United Nations Website at www.unece.org/trans/danger/publi/ghs/ghs_rev01/

	01files_e.html 9. Information about RoHS (Restriction of Use of Certain Hazardous Substances in Electrical and Electronic Equipments) was obtained from Website at www.rohs.gov.uk 10. Information about State of California Safe Drinking Water and Toxic Enforcement Act 1986 (Proposition 65) was obtained from Website at www.oehha.ca.gov/prop65.html