



MATERIAL SAFETY DATA

CSL 502 Industrial Silicone Sealant/Adhesive

Reviewed: Decemebr 19, 2005

MSDS NO. 160

I PRODUCT IDENTIFICATION

PRODUCT NAME CSL 502 Industrial Silicone Sealant/Adhesive
CHEMICAL NAME Not Applicable
CHEMICAL FORMULA Silicone Sealant
MOLECULAR WEIGHT Polymer

II HAZARDOUS INGREDIENTS OF MATERIAL

MATERIAL	%	CAS NUMBER	ACGIH TLV	LD50
Amorphous Silica	5-10	7631-86-95 ppm	>5000 mg/kg oral/rat	
Acetoxy Silane	1-5	13170-23-5	10 ppm	3310 mg/kg oral/rat
Acetoxy Silane	1-5	17689-77-9	10 ppm	3310 mg/kg oral/rat

III PHYSICAL DATA

Boiling Point (°C) Not Applicable
Freezing Point (°C) Not Applicable
Vapor Pressure (mm Hg) Negligible @ 25°C.
Vapor Density (Air = 1) Not Applicable
% Volatile By Volume 4 - 7
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
Appearance and Odor Smooth, thixotropic paste - acetic acid vapor by-product during cure
Odor Threshold 0.2 - 1 ppm

IV FIRE AND EXPLOSION DATA

Flash Point of Curing By-Product and Method 84-85°C. P.M.C.C. ASTM D-93
Lower Explosive Limit % Not Applicable
Upper Explosive Limit % Not Applicable
Autoignition Temperature No Data
Fire Extinguishing Agents Chemical Foam, Dry Chemical, CO₂
Fire Fighting Procedures Sealant will burn strongly if heated. 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.
Unusual Fire/ Explosion Hazard None
Hazardous Combustion Products Carbon Dioxide, Carbon Monoxide, Silicone Dioxide

V HEALTH HAZARD AND TOXICOLOGICAL DATA

A. 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 No information available and no adverse reproductive effects are anticipated
Mutagenicity Data No information available and no adverse mutagenic effects are anticipated
Teratogenicity Data No information available and no adverse teratogenic effects are anticipated
Synergistic Products None Known

B. 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.
Eyes Concentrated acetic acid vapors can cause moderate irritation and burns.
Skin Repeated exposure to acetic acid may cause irritation and thickening of the skin and dark coloration. Dermatitis may develop following acute overexposure.
Ingestion Very low oral toxicity. May cause irritation and obstruction to gastro-intestinal tract.

VI FIRST AID PROCEDURES

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.

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.

VII REACTIVITY DATA

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.

VIII PREVENTATIVE MEASURES

A. 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
Skin Protection	Gloves, coveralls, apron 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 TEMPERATURES (UP TO 38°C)

B. STORAGE AND 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 below TLV. DO NOT handle or store near an open flame, sources of heat, or sources of ignition. Cured CSL product requires no special precautions.

C. ENVIRONMENTAL PROTECTION

Spill and 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 container.
Waste Disposal	Review environmental regulations to disposal. Silicone wastes can often be incinerated in approved facilities. Solid waste may be sent to a designated landfill site.

IX ADDITIONAL INFORMATION AND SOURCES USED

- American Conference of Governmental Industrial Hygienists Inc., Documentation of the Threshold Limit Values (TLV) and Biological Exposures Indices, 5th Edition, 1986, Cincinnati, OH.
- Keith, L. H., et al, eds, Compendium of Safety Data Sheets for Research and Industrial Chemicals, Volume 2, 1985.
- Sax, Irving, et al, Dangerous Properties of Industrial Materials, 1984, New York, NY.
- Canadian Center for Occupational Health and Safety, CHEMINFO, Record #15E.
- 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.

X PREPARATION INFORMATION

Date Issued	January 22, 1993
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XI REGULATORY CLASSIFICATION

WHMIS Classification	1. CLASS B-Flammable and Combustible Material Division 3-Combustible Liquid
	2. CLASS D-Poisonous and Infectious Material Division 2-Other Toxic Effects Subdivision b-Toxic
TDG Information	Not regulated in Canada

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