

Midsun 570 HVIC Material Safety Data Sheet (MSDS)

Reviewed August 8, 2000

I PRODUCT IDENTIFICATION

PRODUCT NAME	Midsun 570 HVIC One-Part Silicone Rubber Protective Coating
CHEMICAL NAME	Coating Solution
CHEMICAL FORMULA	Silicone Sealant
MOLECULAR WEIGHT	Polymer

II HAZARDOUS INGREDIENTS OF MATERIAL

MATERIAL	%	CAS NUMBER	ACGIH TLV	LD50
Petroleum Naphtha	15-40	064742-88-7	100 PPM	>6240mg/kg (oral, rat) >3120mg/kg (dermal, rat) >14000mg/kg (inhal, rat)
Amorphous Silica	1-5	7631-86-9	5mg/m ³	>5000mg/kg oral/rat
Oximino Silane	1-5	22984-54-9	Not Est.	2400-3700mg/kg oral/rat
Crystalline Quartz	20-40	14808	0.1mg/ m ³	Not Available

III PHYSICAL DATA

Boiling Point (°C)	Not Available
Freezing Point (°C)	Not Available
Vapor Pressure (mm Hg)	Negligible @ 25°C.
Vapor Density (Air = 1)	Not Applicable
% V O C	25.8 (2.58 lb./Gal)
Specific Gravity (Water = 1)	1.2
Solubility in Water	Insoluble
Solubility in Other Solvents	Soluble in Most Organic Solvents
Evaporation Rate (Butyl Acetate = 1)	Not Applicable
Appearance and Other	Smooth, Thixotropic paste, Hydrocarbon odor
Odor Threshold	Not Applicable

IV FIRE AND EXPLOSION DATA

Flash Point	42 °C P.M.C.C. ASTM D-93.
Lower Explosive Limit %	Not Established
Upper Explosive Limit %	Not Established
Autoignition Temperature	No Data
Fire Extinguishing Agents	Dry Chemical, CO ₂ , Waterspray, Chemical Foam
Fire Fighting Procedures	Wear Self-Contained Breathing Apparatus (SCBA) which provides eye protection and is NIOSH approved. Shut off fuel supply to fire if possible. Do not use direct water stream, this may spread the fire
Unusual Fire/ Explosive Hazard	Carbon Dioxide, Carbon Monoxide, Silicone Dioxide, Nitrogen Oxides
Hazardous Combustion Products	Possible release of crystalline silica (quartz)

V. HEALTH HAZARD AND TOXICOLOGICAL DATA

A. EFFECTS OF CHRONIC EXPOSURE

Health Effects	Pulmonary Edema, Dermatitis
Toxicological Data	LD50 of mixture (calculated) Ingestion/Rat 4400 - 16700 mg/kg
Carcinogenicity Data	Respirable Crystalline Silica has been classified as a probable carcinogen by the International Agency for Research on Cancer (IARC) and the National Institute for Occupational Health and Safety (NIOSH). Neither the base compound or the cured sealant release any respirable quartz
Reproductive Data	No information available and no adverse reproductive effect are anticipated.
Mutagenicity Data	No information available and no adverse reproductive effect are anticipated.
Teratogenicity Data	No information available and no adverse reproductive effect are anticipated.
Synergistic products	None known.
Delayed Effects	Decomposition product Methyl Ethyl Ketoxime (MEKO). Lifetime studies of rats and mice indicate the following long-term health effects. - increase in liver carcinomas in male mice (375 PPM) and male rats (375 PPM). - damage to factory epithelium in both mice and rats (both sexes) at 15, 75 and 375ppm. Normal exposure levels experienced by users indicate exposures of 3ppm or less.

B. EFFECTS OF ACUTE EXPOSURE

Inhalation	Moderately irritating to respiratory passages. Prolonged exposure to high vapor concentrations can cause headaches, nausea, and central nervous system depression, anesthesia and dizziness.
Eyes	Liquid causes severe irritation on contact: may cause corneal ulcers and conjunctivitis. Vapor is an irritant: may cause corneal damage

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	and photophobia (light sensitivity).
Skin	Direct contact with vapor or liquid may cause defatting, dry and cracking of the skin. Prolonged and repeated contact may cause dermatitis
Ingestion	Ingestion can cause headache, nausea, dizziness, anesthesia, and depression of the central nervous system and burning sensation. Very low oral toxicity.

VI FIRST AID PROCEDURES

Inhalation	No emergency care anticipated. Treat symptomatically. If systems persist, consult physician.
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 eyelids open. Obtain medical attention immediately.
Skin Contact	Remove contaminated clothing. Wash gently and thoroughly with water and non-abrasive soap. If systems 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 300 ml) of water or milk to dilute material in stomach. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Repeat the administration of water/milk. Obtain medical attention immediately.
First Aid	Provide general supportive measures (comfort, warmth, and rest). Consult a physician and/or the nearest Poison Control Center for all exposures except minor instances of inhalation or skin contact. Only a physician should remove solid or plastic material in the eye.
Delayed (Subchronic & Chronic) Effects	Decomposition product Methyl Ethyl Ketoxime (MEKO). In a chronic oral toxicity animal study, methyl ethyl ketoxime produced an adverse effect upon red blood cells. This was found for all dose levels tested. Gross histopathologic alterations were observed in the spleen, lung, and kidney. In an acute dermal animal study, 200mg/kg caused mild hematologic (blood) effects. No effects were seen at 20mg/kg.

VII REACTIVITY DATA

Product Stability	Stable
Hazardous Polymerization	Will not occur
Incompatible Materials	CONCENTRATED ACIDS OR BASES - cause degradation of polymer. Boiling water may soften and weaken material.
Hazardous Decomposition Products	Combustion will produce silicone dioxide, carbon dioxide and carbon monoxide.

VIII PREVENTATIVE MEASURES

A. PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection	NIOSH/MSHA approved air-purifying respirator, equipped with organic vapor/dust cartridge.
Eye/Face Protection	Chemicals splash goggles
Skin Protection	Gloves, coveralls, apron may be useful to prevent contamination of skin or clothing.
Resistance of Material for Protective Clothing	No specific data. Most rubbers and plastics are adequate.
Ventilation Requirements	Local exhaust provides sufficient removal of vapors.

B. STORAGE AND HANDLING

Storage Conditions	Store in cool dry conditions. Keep container tightly sealed when not in use.
Handling Procedure	No specific measure required. Do not inhale vapor or ingest sealant. Cured Midsun 570 product requires no special precautions.

C. ENVIRONMENTAL PROTECTION

Spill and Leak Procedure	Eliminate sources of ignition. Restrict access to area of spill. Provide ventilation and protective clothing if needed. Scrape-up sealant with cardboard of 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

1. American Conference of Government Industrial Hygienists Inc., Documentation of the Threshold Limit Values (TLV) and Biological Exposures Indices, 5th Edition, 1986, Cincinnati, OH.
2. National Institute for Occupational Safety and Health, Registry of Toxic Effects of Chemical Substances
3. Sigma-Aldrich Corp., USA, The Sigma-Aldrich Library of Chemical Safety Data, 1985.
4. Sittig, M., Handbook of Toxic and Hazardous Chemicals and Carcinogens, 2nd Edition, 1985, Park Ridge, NJ.
5. Canadian Center of Occupational Health and Safety, CHEMINFO, Record #15E. #26E.
6. Material Safety Data Sheets from Cabot Corporation, Wacker-Chemical GMBH, General Filtration, Dow Corning, Union Carbide, Hoechst Canada, Allied Signal

X REGULATORY CLASSIFICATIONS

WHMIS Classifications

1. CLASS B-Flammable and Combustible Liquid
Division 3-combustible
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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**MIDSUN GROUP, INC.
P.O. BOX 864, SOUTHLINGTON, CT. 06489, USA
TELEPHONE (860) 378-0100 FAX (860) 378-0103**