MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	**Hylomar / Hylosil 310**
Version #	01
Issue date	12-10-2012
Revision date	-
Supersedes date	-
CAS #	Mixture
MSDS Number	25
Product use	Silicone sealant.

Manufacturer information

Manufacturer:	Hylomar Ltd.
Address:	Hylo House, Cale Lane, New Springs, Wigan, Greater Manchester, UK, WN2 1JT
Telephone number:	+44(0)1942 617000
E-mail address:	info@hylomar.co.uk
Contact person:	Technical Department
Emergency telephone:	1.866.519.4752 (USA, Canada, Mexico) 1-760-476-3962 Access code: 333544

2. Hazards Identification

Physical state	Liquid.
Appearance	Red paste.
Emergency overview	DANGER Causes skin and eye burns. Causes digestive tract burns.
OSHA regulatory status	This product is hazardous according to OSHA 29 CFR 1910.1200.
Potential health effects	
Routes of exposure	Eye contact. Skin contact. Ingestion. Inhalation.
Eyes	Causes eye burns. Risk of serious damage to eyes.
Skin	Causes skin burns.
Inhalation	In high concentrations, vapors may irritate throat and respiratory system and cause coughing.
Ingestion	Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.
Target organs	Eyes. Skin Digestive tract. Respiratory system.
Signs and symptoms	Extreme irritation of eyes and mucous membranes, including burning and tearing. Itching, redness, burning of skin.
Potential environmental effects	Not expected to be harmful to aquatic organisms.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Polyalkyl siloxane	63148-62-9	2.5 - 10
Silicon dioxide	7631-86-9	2.5 - 10
Triacetoxyethylsilane	17689-77-9	1 - < 10

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures

Eye contact	Flush thoroughly with water for at least 15 minutes. Get immediate medical assistance. If medical assistance is not immediately available, flush an additional 15 minutes. Make sure to remove any contact lenses from the eyes before rinsing.
Skin contact	Immediately take off all contaminated clothing. Get immediate medical attention. Wash contaminated clothing before reuse. Immediately flush with plenty of water for at least 15 minutes.
Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Ingestion	Immediately rinse mouth and drink plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content does not get into the lungs. Get immediate medical attention.
Notes to physician	Provide general supportive measures and treat symptomatically.
General advice	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire Fighting Measures

Flammable properties	The product is not flammable.
Extinguishing media	
Suitable extinguishing media	Water spray, foam, dry powder or carbon dioxide.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Protection of firefighters	
Specific hazards arising from the chemical	By heating and fire, toxic vapors/gases may be formed.
Protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.
Fire fighting equipment/instructions	Use standard firefighting procedures and consider the hazards of other involved materials. Cool containers exposed to heat with water spray and remove container, if no risk is involved. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.
Hazardous combustion products	Carbon monoxide and carbon dioxide. Silicon oxides.

6. Accidental Release Measures

Personal precautions	Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this MSDS. In case of spills, beware of slippery floors and surfaces. Avoid inhalation of vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not discharge into drains, water courses or onto the ground.
Methods for cleaning up	Scrape up the spilled material. Transfer to a container for disposal. Following product recovery, flush area with water. For waste disposal, see section 13 of the MSDS.
Other information	Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling	Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. Wash thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices. Avoid breathing vapor.
Storage	Keep away from heat, spark, open flames and other sources of ignition. Keep container tightly closed in a cool, well-ventilated place. Store away from incompatible materials. Incompatible materials: Fluorine. Fluorides.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value
Silicon dioxide (CAS 7631-86-9)	TWA	0.8 mg/m3
		20 mppcf

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Silicon dioxide (CAS 7631-86-9)	TWA	4 mg/m3	Total
		1.5 mg/m3	Respirable.

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
Silicon dioxide (CAS 7631-86-9)	TWA	10 mg/m3

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value	Form
Silicon dioxide (CAS 7631-86-9)	TWA	6 mg/m3	Respirable dust.

Exposure guidelines Follow standard monitoring procedures.

Engineering controls Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of exposure. Eye wash facilities and emergency shower must be available when handling this product.

Personal protective equipment

Eye / face protection Wear approved safety glasses or goggles.

Skin protection Wear protective gloves. Neoprene or nitrile gloves are recommended. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier. Normal work clothing (long sleeved shirts and long pants) is recommended.

Respiratory protection Under normal conditions, respirator is not normally required. In case of inadequate ventilation: It is recommended to use respiratory equipment with combination filter, type A2/P2.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical & Chemical Properties

Appearance Red paste.

Physical state Liquid.

Form Paste. Thixotropic gel.

Color Red.

Odor Vinegar.

Odor threshold Not available.

pH Not available.

Vapor pressure Not available.

Vapor density Not available.

Boiling point Not available.

Melting point/Freezing point Not available.

Solubility (water) Insoluble in water.

Specific gravity Not available.

Flash point Not available.

Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	Not available.
Evaporation rate	Not available.
Viscosity	Not available.

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Fluorine. Fluorides.
Hazardous decomposition products	Carbon monoxide. Carbon dioxide. Silicon oxides.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.

11. Toxicological Information

Toxicological data

Components	Species	Test Results
Polyalkyl siloxane (CAS 63148-62-9)		
Acute		
Dermal		
LD50	Rabbit	>= 5000 mg/kg
Oral		
LD50	Rat	>= 17000 mg/kg
Silicon dioxide (CAS 7631-86-9)		
Acute		
Oral		
LD50	Mouse	> 15000 mg/kg
	Rat	> 22500 mg/kg

Sensitization	No sensitizing effects known.
Acute effects	May cause discomfort if swallowed.
Local effects	Causes skin and eye burns. Causes digestive tract burns.
Carcinogenicity	Not classified.

IARC Monographs. Overall Evaluation of Carcinogenicity

Silicon dioxide (CAS 7631-86-9) 3 Not classifiable as to carcinogenicity to humans.

Mutagenicity	Not classified.
Reproductive effects	Not classified.
Symptoms and target organs	Extreme irritation of eyes and mucous membranes, including burning and tearing. Itching, redness, burning of skin.
Further information	No other specific acute or chronic health impact noted.

12. Ecological Information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Persistence and degradability	Not available.
Bioaccumulation / Accumulation	Not available.
Mobility in environmental media	The product is insoluble in water.

13. Disposal Considerations

Waste codes	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal instructions	Do not discharge into drains, water courses or onto the ground. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

DOT

Basic shipping requirements:	
UN number	UN1760
Proper shipping name	Corrosive liquids, n.o.s. (Triacetoxyethylsilane)
Hazard class	8
Packing group	II
Environmental hazards	
Marine pollutant	No
Special precautions	Read safety instructions, MSDS and emergency procedures before handling.
Additional information:	
Special provisions	B2, IB2, T11, TP2, TP27
Packaging exceptions	154
Packaging non bulk	202
Packaging bulk	242

IATA

UN number	UN1760
UN proper shipping name	Corrosive liquid, n.o.s. (Triacetoxyethylsilane)
Transport hazard class(es)	8
Packing group	II
Environmental hazards	No
Labels required	8
ERG code	8L
Special precautions for user	Read safety instructions, MSDS and emergency procedures before handling.

IMDG

UN number	UN1760
UN proper shipping name	CORROSIVE LIQUID, N.O.S. (Triacetoxyethylsilane)
Transport hazard class(es)	8
Packing group	II
Environmental hazards	
Marine pollutant	No
Labels required	8
EmS	F-A, S-B
Special precautions for user	Read safety instructions, MSDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

TDG

Proper shipping name	CORROSIVE LIQUID, N.O.S. (Triacetoxyethylsilane)
Hazard class	8
Packing group	II
Special provisions	16

15. Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
Section 302 extremely hazardous substance (40 CFR 355, Appendix A)	No
Section 311/312 (40 CFR 370)	Yes
Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)	Not controlled
Canadian regulations	This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.
WHMIS status	Controlled
WHMIS classification	E - Corrosive

WHMIS labeling

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer birth defects or other reproductive harm.

US - California Hazardous Substances (Director's): Listed substance

Silicon dioxide (CAS 7631-86-9) Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

US - New Jersey RTK - Substances: Listed substance

Silicon dioxide (CAS 7631-86-9) Listed.

US. Massachusetts RTK - Substance List

Silicon dioxide (CAS 7631-86-9) Listed.

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

Silicon dioxide (CAS 7631-86-9) Listed.

Mexico regulations This safety data sheet was prepared in accordance with the Official Mexican Standard (NOM-018-STPS-2000).

16. Other Information

Recommended use Silicone sealant.

Recommended restrictions Use in accordance with supplier's recommendations.

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings
Health: 3
Flammability: 1
Physical hazard: 0

NFPA ratings
Health: 3
Flammability: 1
Instability: 0

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available.