SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name or designation of the mixture	Hylomar / Hylosil 310
Registration number	-
Synonyms	None.
SDS number	25
Issue date	22-October-2019
Version number	01
Revision date	-
Supersedes date	-

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Silicone sealant.
Uses advised against	Use in accordance with supplier's recommendations.

1.3. Details of the supplier of the safety data sheet

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
1.4. Emergency telephone number	+1-760-476-3961 (US) Access code: 333544

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards

Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Serious eye damage/eye irritation	Category 1	H318 - Causes serious eye damage.

Hazard summary Causes skin irritation. Causes serious eye damage.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: Triacetoxyethylsilane

Hazard pictograms

Signal word Danger

Hazard statements

H315	Causes skin irritation.
H318	Causes serious eye damage.

Precautionary statements

Prevention

P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response

P302 + P352	IF ON SKIN: Wash with plenty of water.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTRE/doctor.

Storage Store away from incompatible materials.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information None.

2.3. Other hazards This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Silicon dioxide	5 - < 10	7631-86-9 231-545-4	01-2119379499-16-XXXX	-	
Classification: -					
Triacetoxyethylsilane	3 - < 5	17689-77-9 241-677-4	01-2119881778-15-XXXX	-	
Classification: Skin Corr. 1B;H314					

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General information 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.

4.1. Description of first aid measures

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.

Skin contact Remove contaminated clothes and rinse skin thoroughly with water. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse.

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.

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 doesn't get into the lungs. Get immediate medical attention.

4.2. Most important symptoms and effects, both acute and delayed Causes skin irritation. Extreme irritation of eyes and mucous membranes, including burning and tearing.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards The product is not flammable.

5.1. 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.

5.2. Special hazards arising from the substance or mixture By heating and fire, toxic vapours/gases may be formed.

5.3. Advice for firefighters

Special protective equipment 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.

Special fire fighting procedures 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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this SDS. In case of spills, beware of slippery floors and surfaces. Avoid inhalation of vapours. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

For emergency responders Keep unnecessary personnel away. Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions Prevent further leakage or spillage if safe to do so. Do not discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up Scrape up the spilled material. Transfer to a container for disposal. Following product recovery, flush area with water.

6.4. Reference to other sections For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Avoid contact with skin and eyes. Avoid breathing vapour. 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.

7.2. Conditions for safe storage, including any incompatibilities 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.

7.3. Specific end use(s) Silicone sealant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits No exposure limits noted for ingredient(s).

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs)

General Population

Components	Value	Assessment factor	Notes
Triacetoxyethylsilane (CAS 17689-77-9)			
Long-term, Systemic, Dermal	5.7 mg/kg bw/day	600	Repeated dose toxicity
Long-term, Systemic, Inhalation	19.81 mg/m3	150	Repeated dose toxicity
Long-term, Systemic, Oral	5.7 mg/kg bw/day	600	Repeated dose toxicity

Workers

Components	Value	Assessment factor	Notes
Silicon dioxide (CAS 7631-86-9)			
Long-term, Systemic, Inhalation	4 mg/m3		respiratory tract irritation
Triacetoxyethylsilane (CAS 17689-77-9)			
Long-term, Systemic, Dermal	11.39 mg/kg bw/day	300	Repeated dose toxicity
Long-term, Systemic, Inhalation	80.33 mg/m3	75	Repeated dose toxicity

Predicted no effect concentrations (PNECs)

Components	Value	Assessment factor	Notes
Triacetoxyethylsilane (CAS 17689-77-9)			
Freshwater	0.023 mg/l	1000	
Marine water	0.002 mg/l	10000	
Sediment (freshwater)	0.023 mg/kg		
Sediment (marine water)	0.002 mg/kg		
Soil	0.006 mg/kg		
STP	10.637 mg/l	10	

8.2. Exposure controls

Appropriate engineering controls Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Observe occupational exposure limits and minimise the risk of exposure. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

General information	Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
Eye/face protection	Wear approved safety glasses or goggles. Eye protection should meet standard EN 166.
Skin protection	
- Hand protection	Wear suitable gloves tested to EN374. Nitrile or Neoprene 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.
- Other	Normal work clothing (long sleeved shirts and long pants) is recommended. Use of an impervious apron 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.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
Hygiene measures	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.
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state	Liquid.
Form	Paste. Thixotropic gel.
Colour	Red.
Odour	Vinegar.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	1.29 (25 °C) (Water = 1)
Solubility(ies)	Insoluble in water.
Partition coefficient (n-octanol/water)	No data available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
9.2. Other information	No relevant additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid Contact with incompatible materials.

10.5. Incompatible materials Fluorine. Fluorides.

10.6. Hazardous decomposition products Carbon monoxide. Carbon dioxide. Silicon oxides.

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation In high concentrations, vapours may irritate throat and respiratory system and cause coughing.

Skin contact Causes skin irritation.

Eye contact Causes serious eye damage.

Ingestion May cause discomfort if swallowed.

Symptoms Causes skin irritation. Extreme irritation of eyes and mucous membranes, including burning and tearing.

11.1. Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Silicon dioxide (CAS 7631-86-9)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg, 24 Hours
Inhalation		
Dust		
LC50	Rat	> 0.14 mg/l, 4 Hours
Oral		
LD50	Rat	> 5000 mg/kg

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory sensitisation Due to lack of data the classification is not possible.

Skin sensitisation Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

Reproductivity

Triacetoxyethylsilane (CAS 17689-77-9) >= 3048.62 mg/kg bw/day NOAEL, Read across
Species: Rat
Organ: Reproductive & developmental

Specific target organ toxicity - single exposure Based on available data, the classification criteria are not met.

Specific target organ toxicity - repeated exposure Based on available data, the classification criteria are not met.

Triacetoxyethylsilane (CAS 17689-77-9) >= 3417.23 mg/kg bw/day NOAEL, Read across
Species: Rat
Organ: oral, subacute
>= 78.03 mg/kg bw/day NOAEL, Read across
Species: Rat
Organ: oral, chronic

Aspiration hazard Based on available data, the classification criteria are not met.

Mixture versus substance information The product is a mixture.

Other information No other specific acute or chronic health impact noted.

SECTION 12: Ecological information

12.1. Toxicity 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.

Components		Species	Test Results
Triacetoxyethylsilane (CAS 17689-77-9)			
Aquatic			
Algae	EC50	Algae	23.03 mg/l, 72 hours Read across
	NOErC	Algae	16.98 mg/l, 72 hours Read across
Acute			
Crustacea	EC50	Invertebrates (Invertebrates)	84.53 mg/l, 48 hours Read across
Fish	LC50	Fish	102.74 mg/l, 96 hours Read across
Other			
Micro-organisms	NOECb	Micro-organisms	106.37 mg/l, 28 days Read Across

12.2. Persistence and degradability No data available.

12.3. Bioaccumulative potential No data available.

Partition coefficient n-octanol/water (log Kow) No data available.

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

Mobility in general The product is insoluble in water.

12.5. Results of PBT and vPvB assessment This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.

12.6. Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste 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.

EU waste code The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Disposal methods/information 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.

SECTION 14: Transport information

ADR

14.1. - 14.6.: Not regulated as dangerous goods.

RID

14.1. - 14.6.: Not regulated as dangerous goods.

ADN

14.1. - 14.6.: Not regulated as dangerous goods.

IATA

14.1. - 14.6.: Not regulated as dangerous goods.

IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Not listed.

Other regulations	This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended. The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended.
National regulations	Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended. Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.
15.2. Chemical safety assessment	No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

PBT: Persistent, bioaccumulative and toxic.
vPvB: Very Persistent and very Bioaccumulative.
PNEC: Predicted No-Effect Concentration.
TWA: Time weighted average.
DNEL: Derived No-Effect Level.
ADN: European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways.
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
MARPOL: International Convention for the Prevention of Pollution from Ships.

References	HSDB® - Hazardous Substances Data Bank Registry of Toxic Effects of Chemical Substances (RTECS) ESIS (European chemical Substances Information System)
Information on evaluation method leading to the classification of mixture	The mixture is classified based on test data for physical hazards. The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available. For details, refer to Sections 9, 11 and 12.
Full text of any H-statements not written out in full under Sections 2 to 15	H314 Causes severe skin burns and eye damage.
Training information	Follow training instructions when handling this material.
Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available.