



# 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 Advanced Formulation / Hylomar Advanced Formulation HV / Hylomar Advanced Form Ultra HV
Registration number	-
Synonyms	None.
SDS number	5
Issue date	23-January-2014
Version number	03
Revision date	21-May-2019
Supersedes date	09-March-2016

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

Identified uses	Non-Setting and Non-Hardening Gasketing Compound.
Uses advised against	None known.

### 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

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

Hazard summary	Health injuries are not known or expected under normal use.
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### 2.2. Label elements

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

Hazard pictograms	None.
Signal word	None.
Hazard statements	The mixture does not meet the criteria for classification.

#### Precautionary statements

Prevention	Use personal protective equipment as required.
Response	Get medical attention/advice if you feel unwell.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.

Supplemental label information	None.
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2.3. Other hazards	This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.
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## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

## General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Butane-1,4-diol	1 - 2	110-63-4 203-786-5	-	-	
<b>Classification:</b>	Acute Tox. 4;H302, STOT SE 3;H336				
Ethylene glycol	1 - 2	107-21-1 203-473-3	01-2119456816-28-XXXX	603-027-00-1	#
<b>Classification:</b>	Acute Tox. 4;H302, STOT RE 2;H373				

## List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).

**Composition comments** The full text for all H-statements is displayed in section 16.

## SECTION 4: First aid measures

**General information** Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 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** Wash off with soap and water. Get medical attention if irritation develops and persists.

**Eye contact** Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.

**Ingestion** Rinse mouth. Drink a few glasses of water or milk. Get medical attention if any discomfort continues.

**4.2. Most important symptoms and effects, both acute and delayed** Direct contact with eyes may cause temporary irritation.

**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. Will burn if involved in a fire.

### 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** 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. In case of spills, beware of slippery floors and surfaces. Keep unnecessary personnel away.

**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** Keep away from sources of ignition - No smoking. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with skin and eyes. Avoid prolonged exposure. Wash thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices. Avoid release to the environment.

**7.2. Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a cool, well-ventilated place. Keep away from heat, spark, open flames and other sources of ignition. Store away from incompatible materials. Store in a cool, dark place at temperatures between 5°C and 35°C.

**7.3. Specific end use(s)**

Non-Setting and Non-Hardening Gasketing Compound.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Occupational exposure limits****UK. EH40 Workplace Exposure Limits (WELs)**

Components	Type	Value	Form
Ethylene glycol (CAS 107-21-1)	STEL	104 mg/m3	Vapour.
		40 ppm	Vapour.
	TWA	52 mg/m3	Vapour.
		10 mg/m3	Particulate.
		20 ppm	Vapour.

**EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU**

Components	Type	Value
Ethylene glycol (CAS 107-21-1)	STEL	104 mg/m3
		40 ppm
	TWA	52 mg/m3
		20 ppm
		20 ppm

**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
Ethylene glycol (CAS 107-21-1)			
Long-term, Systemic, Dermal	53 mg/kg bw/day	84	Repeated dose toxicity
Short-term, Systemic, Inhalation	7 mg/m3	10	Skin irritation/corrosion

**Workers**

Components	Value	Assessment factor	Notes
Ethylene glycol (CAS 107-21-1)			
Long-term, Systemic, Dermal	106 mg/kg bw/day	42	Repeated dose toxicity
Short-term, Systemic, Inhalation	35 mg/m3	2	Skin irritation/corrosion

**Predicted no effect concentrations (PNECs)**

Components	Value	Assessment factor	Notes
Ethylene glycol (CAS 107-21-1)			
Freshwater	10 mg/l	10	
Intermittent releases	10 mg/l		
Marine water	1 mg/l	100	
Sediment (freshwater)	37 mg/kg		
Sediment (marine water)	3.7 mg/kg		
Soil	1.53 mg/kg		
STP	199.5 mg/l	10	

**Exposure guidelines****UK EH40 WEL: Skin designation**

Ethylene glycol (CAS 107-21-1)

Can be absorbed through the skin.

**8.2. Exposure controls****Appropriate engineering controls**

Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours. Not likely, due to the form of the 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 safety glasses with side shields (or goggles). Eye protection should meet standard EN 166.

<b>Skin protection</b>	
<b>- Hand protection</b>	Wear suitable gloves tested to EN374. PVC or rubber 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.
<b>- Other</b>	Normal work clothing (long sleeved shirts and long pants) is recommended.
<b>Respiratory protection</b>	Under normal conditions, respirator is not normally required. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
<b>Thermal hazards</b>	Not applicable.
<b>Hygiene measures</b>	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.
<b>Environmental exposure controls</b>	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

<b>Physical state</b>	Liquid.
<b>Form</b>	Paste.
<b>Colour</b>	Blue.
<b>Odour</b>	Almost odorless.
<b>Odour threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not applicable.
<b>Flash point</b>	> 392.0 °C (> 737.6 °F)
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.

#### Upper/lower flammability or explosive limits

<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Vapour pressure</b>	Not available.
<b>Vapour density</b>	2 (Air = 1) (20 °C/68 °F)
<b>Relative density</b>	1.18 (20 °C/68 °F)
<b>Solubility(ies)</b>	Not miscible.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	275000 cP (Hylomar Advanced Formulation) (25 °C/77 °F) 1000000 cP (Hylomar Advanced Formulation HV) (25 °C/77 °F) 1500000 cP (Hylomar Advanced Form Ultra HV) (25 °C/77 °F)

**Explosive properties** Not explosive.

**Oxidising properties** Not oxidising.

### 9.2. Other information

<b>Explosive limit</b>	Not available.
<b>VOC</b>	0 (Hylomar Test Method 1.1A Determination of Volatile Matter)

## 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.

<b>10.3. Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>10.4. Conditions to avoid</b>	Heat, flames and sparks. Avoid temperatures exceeding the flash point.
<b>10.5. Incompatible materials</b>	Strong oxidising agents. Strong alkalis.
<b>10.6. Hazardous decomposition products</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Hydrogen cyanide. Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

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

### Information on likely routes of exposure

<b>Inhalation</b>	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	May cause eye irritation on direct contact.
<b>Ingestion</b>	Ingestion may cause irritation and malaise.

**Symptoms** Direct contact with eyes may cause temporary irritation.

### 11.1. Information on toxicological effects

**Acute toxicity** May cause discomfort if swallowed.

<b>Product</b>	<b>Species</b>	<b>Test Results</b>
Hylomar Advanced Formulation / Hylomar Advanced Formulation HV / Hylomar Advanced Form Ultra HV (CAS Mixture)		
<b>Acute</b>		
<b>Dermal</b>		
ATE		> 5000 mg/kg
<b>Inhalation</b>		
ATE		> 5 mg/l
<b>Oral</b>		
ATE		> 5000 mg/kg

<b>Components</b>	<b>Species</b>	<b>Test Results</b>
Ethylene glycol (CAS 107-21-1)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Mouse	> 3500 mg/kg
<b>Inhalation</b>		
<i>Aerosol</i>		
LC50	Rat	> 2.5 mg/l, 6 Hours
<b>Oral</b>		
LD50	Rat	7712 mg/kg

**Skin corrosion/irritation** No adverse effects due to skin contact are expected.

**Serious eye damage/eye irritation** May cause eye irritation on direct contact.

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

**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.

**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.

**Aspiration hazard** Due to the physical form of the product it is not an aspiration hazard.

**Mixture versus substance information** No data available.

**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.

Product	Species	Test Results
Hylomar Advanced Formulation / Hylomar Advanced Formulation HV / Hylomar Advanced Form Ultra HV (CAS Mixture)		
<i>Acute</i>	ATE	> 100 mg/l
<i>Chronic</i>	ATE	> 100 mg/l

Components	Species	Test Results
Ethylene glycol (CAS 107-21-1)		
<b>Aquatic</b>		
Algae	IC50	Pseudokirchneriella subcapitata 10940 mg/l, 96 hours
Crustacea	EC50	Daphnia magna > 100 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) 72860 mg/l, 96 hours

**12.2. Persistence and degradability** There are no data on the degradability of this product.

**12.3. Bioaccumulative potential** No data available.

**Partition coefficient  
n-octanol/water (log Kow)**

Ethylene glycol (CAS 107-21-1) -1.36

**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** Do not discharge into rivers, lakes, mountains, etc. because the product may affect the environment.

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.

**EU waste code** 08 04 09

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.

**Special precautions** Dispose of in accordance with local 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 mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

#### **National regulations**

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.  
DNEL: Derived No-Effect Level.  
PNEC: Predicted No-Effect Concentration.  
LD50: Lethal Dose, 50%.  
LC50: Lethal Concentration, 50%.  
NOEC: No observed effect concentration.  
TWA: Time weighted average.  
STEL: Short term exposure limit.  
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.  
ADN: European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways.  
IATA: International Air Transport Association.  
IMDG: International Maritime Dangerous Goods.  
MARPOL: International Convention for the Prevention of Pollution from Ships.

#### **References**

ECHA CHEM  
HSDB® - Hazardous Substances Data Bank  
Registry of Toxic Effects of Chemical Substances (RTECS)

#### **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**

H302 Harmful if swallowed.  
H336 May cause drowsiness or dizziness.

	H373 May cause damage to organs through prolonged or repeated exposure.
<b>This SDS contains revisions in the following section(s):</b>	This safety data sheet contains revisions in the following section(s): 2, 3, 8, 9, 11, 12, 15, 16
<b>Training information</b>	Follow training instructions when handling this material.
<b>Disclaimer</b>	The information in the sheet was written based on the best knowledge and experience currently available.