SAFETY DATA SHEET

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

Product identifier
Trade name or designation of the mixture HYLOGRIP HY5174
Registration number -
Synonyms None.
SDS number 10
Date of first issue 12-January-2012
Version number 01
Revision date -
Supersedes date -

Relevant identified uses of the substance or mixture and uses advised against
Identified uses Flexible Gasket Compound.
Uses advised against None known.

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
Emergency telephone: 1-760-476-3961
Access code: 333544

Section 2: Hazards identification
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 Directive 67/548/EEC or 1999/45/EC as amended
Classification Xi;R36, R43
The full text for all R-phrases is displayed in section 16.

Classification according to Regulation (EC) No 1272/2008 as amended
Health hazards
<table>
<thead>
<tr>
<th>Health hazard</th>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 2</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>Skin sensitisation</td>
<td>Category 1</td>
<td>May cause an allergic skin reaction.</td>
</tr>
</tbody>
</table>

Hazard summary
Physical hazards Not classified for physical hazards.
Health hazards Irritating to eyes. May cause sensitisation by skin contact.
Environmental hazards Not classified for hazards to the environment.
Specific hazards Irritating to eyes. May cause allergic skin reaction.
Main symptoms Irritation of eyes and mucous membranes. Exposed may experience eye tearing, redness, and discomfort. Skin irritation. May cause allergic skin reaction. Rash. In high concentrations, vapours may be irritating to the respiratory system.

Label elements
Label according to Regulation (EC) No. 1272/2008 as amended
Contains: 2-Hydroxyethyl methacrylate, 2-Hydroxypropyl methacrylate
Signal word
Warning

Hazard statements
Causes serious eye irritation. May cause an allergic skin reaction. Causes skin irritation.

Precautionary statements

Prevention
Avoid breathing fume/mist/vapors/spray. Wear protective gloves and eye/face protection. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Storage
Store away from incompatible materials.

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

Supplemental label information
None.

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

Section 3: Composition/information on ingredients

Mixture

General information

Chemical name % CAS-No. / EC No. REACH Registration No. INDEX No. Notes

2-Hydroxypropyl methacrylate 10 - 20 27813-02-1 248-666-3 - -

Classification: DSD: Xi;R36, R43 CLP: Skin Sens. 1;H317, Eye Irrit. 2;H319

2-Hydroxyethyl methacrylate 1 - 5 868-77-9 212-782-2 - 607-124-00-X

Classification: DSD: Xi;R36/38, R43 CLP: Skin Irrit. 2;H315, Skin Sens. 1;H317, Eye Irrit. 2;H319

Cumene hydroperoxide 0.1 - 1 80-15-9 201-254-7 - 617-002-00-8

Classification: DSD: O;R7, T;R23, C;R34, Xn;R21/22-48/20/22, N;R51/53 CLP: Org. Perox. EF;H242, Acute Tox. 4;H302, Acute Tox. 4;H312, Skin Corr. 1B;H314, Acute Tox. 3;H331, STOT SE 3;H335, STOT RE 2;H373, Aquatic Chronic 2;H411

# This substance has workplace exposure limit(s).
DSD: Directive 67/548/EEC.

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

Section 4: First aid measures

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

Description of first aid measures

Inhalation
Move into fresh air and keep at rest. If not breathing, give artificial respiration or give oxygen by trained personnel. Get medical attention if any discomfort continues.

Skin contact
Take off immediately all contaminated clothing. Wash skin thoroughly with soap and water. If skin irritation or rash occurs: Get medical advice/attention.

Eye contact
Flush eyes thoroughly with water for at least 15 minutes. Remove any contact lenses. Get medical attention if any discomfort continues.

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

Most important symptoms and effects, both acute and delayed
Irritation of eyes and mucous membranes. Exposed may experience eye tearing, redness, and discomfort. Skin irritation. May cause an allergic skin reaction. Rash. In high concentrations, vapours may be irritating to the respiratory system.
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.

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.

Special hazards arising from the substance or mixture

By heating and fire, toxic vapours/gases may be formed.

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 firefighting 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

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep upwind. Ventilate closed spaces before entering. Avoid inhalation of vapours/spray and contact with skin and eyes. Keep unnecessary personnel away. 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.

Environmental precautions

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

Methods and material for containment and cleaning up

Ventilate the area. In case of spills, beware of slippery floors and surfaces. Wipe up with absorbent material (e.g. cloth, fleece). Transfer to a container for disposal. Following product recovery, flush area with water.

Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

Section 7: Handling and storage

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 prolonged exposure. Wash thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices. Avoid release to the environment. Use only outdoors or in a well-ventilated area. Avoid inhalation of vapours/mist and contact with skin and eyes.

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 locked up.

Specific end use(s)

Flexible Gasket Compound.

Section 8: Exposure controls/personal protection

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.

DNEL

Not available.

PNEC

Not available.

Exposure controls

Provide adequate ventilation.

Appropriate engineering controls

Provide adequate ventilation.

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).

Skin protection

- Hand protection

Wear protective gloves. Viton or nitrile 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.
- Other
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 or risk of inhalation of vapours, use suitable respiratory equipment.

Thermal hazards
Not applicable.

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
Environmental manager must be informed of all major releases.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance Paste. Orange.
Physical state Liquid.
Form Paste.
Colour Orange.
Odour Slight. Pungent.
Odour threshold Not available.
P H 4 - 6
Melting point/freezing point Not available.
Boiling point, initial boiling point, and boiling range Not available.
Flash point > 100 °C (> 212 °F) (COC/DIN/ISO 2592)
Auto-ignition temperature Not available.
Flammability (solid, gas) Not applicable.
Flammability limit - lower (%) Not applicable.

Flammability limit - upper (%) Not applicable.
Oxidising properties Not available.
Explosive properties Not applicable.
Explosive limit Not available.
Vapour pressure Not available.
Vapour density < 0.5 (20 °C) (Air = 1)
Evaporation rate Not available.
Relative density 1 - 1.1 (20 °C) (Water = 1)
Solubility (water) Insoluble.
Partition coefficient (n-octanol/water) Not available.
Decomposition temperature Not available.
Viscosity 110000 mPa·s (20 °C)
Percent volatile Not available.
Other information No relevant additional information available.

Section 10: Stability and reactivity

Reactivity The product is stable and non reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

Conditions to avoid Heat, flames and sparks.


Hazardous decomposition products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Section 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.
Information on likely routes of exposure

**Ingestion**
Ingestion may cause irritation and malaise.

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

**Skin contact**
Causes skin irritation. May cause sensitisation by skin contact.

**Eye contact**
Causes serious eye irritation.

**Symptoms**
Irritation of eyes and mucous membranes. Exposed may experience eye tearing, redness, and discomfort. Skin irritation. May cause an allergic skin reaction. Rash. In high concentrations, vapours may be irritating to the respiratory system.

Information on toxicological effects

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

### Test results

<table>
<thead>
<tr>
<th>Components</th>
<th>Test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Hydroxypropyl methacrylate (27813-02-1)</td>
<td>Acute Oral LD50 Rat: 11200 mg/kg</td>
</tr>
<tr>
<td>Cumene hydroperoxide (80-15-9)</td>
<td>Acute Dermal LD50 Rat: 500 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute Inhalation LC50 Rat: 220 ppm 4 hours</td>
</tr>
<tr>
<td></td>
<td>Acute Oral LD50 Rat: 800 mg/kg</td>
</tr>
<tr>
<td>2-Hydroxyethyl methacrylate (868-77-9)</td>
<td>Acute Dermal LD50 Rabbit: &gt;= 3000 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute Oral LD50 Rat: 5050 mg/kg</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**
Causes skin irritation.

**Serious eye damage/eye irritation**
Causes serious eye irritation.

**Respiratory sensitisation**
No data available.

**Skin sensitisation**
May cause an allergic skin reaction.

**Germ cell mutagenicity**
No data available.

**Carcinogenicity**
No data available.

**Reproductive toxicity**
No data available.

**Specific target organ toxicity - single exposure**
In high concentrations, vapours may irritate throat and respiratory system and cause coughing.

**Specific target organ toxicity - repeated exposure**
No data available.

**Aspiration hazard**
No data available.

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

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

Section 12: Ecological information

**Toxicity**

<table>
<thead>
<tr>
<th>Components</th>
<th>Test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumene hydroperoxide (80-15-9)</td>
<td>EC50 Daphnia: 7 mg/l 24 hours</td>
</tr>
<tr>
<td></td>
<td>LC50 Fish: 3.9 mg/l 96 hours</td>
</tr>
<tr>
<td>2-Hydroxyethyl methacrylate (868-77-9)</td>
<td>LC50 Fathead minnow (Pimephales promelas): 213 - 242 mg/l 96 hours</td>
</tr>
</tbody>
</table>

**Persistence and degradability**
Not available.

**Bioaccumulative potential**
Not available.

**Mobility**
The product is insoluble in water.

**Environmental fate - Partition coefficient**
Not available.

**Mobility in soil**
Not available.

**Results of PBT and vPvB assessment**
Not a PBT or vPvB substance or mixture.

**Other adverse effects**
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. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13: Disposal considerations

**Waste treatment methods**

HYLOGRIIP HY5174

906561 Version No.: 01 Revision date: 12-January-2012 Print date: 12-January-2012
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
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
The product is not covered by international regulation on the transport of dangerous goods.

RID
The product is not covered by international regulation on the transport of dangerous goods.

ADN
The product is not covered by international regulation on the transport of dangerous goods.

IATA
The product is not covered by international regulation on the transport of dangerous goods.

IMDG
The product is not covered by international regulation on the transport of dangerous goods.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable.

Section 15: Regulatory information

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

EU regulations
- Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex I
  Not listed.
- Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex II
  Not listed.
  Not listed.
- Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1
  Not listed.
- Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2
  Not listed.
- Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3
  Not listed.
- Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V
  Not listed.
- Directive 96/61/EC concerning integrated pollution prevention and control (IPPC): Article 15, European Pollution Emission Registry (EPER)
  Not listed.
- Regulation (EC) No. 1907/2006, REACH Article 59(1). Candidate List
  Not listed.

Other regulations
The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

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. Follow national regulation for work with chemical agents.

Chemical safety assessment
No Chemical Safety Assessment has been carried out.

Section 16: Other information

List of abbreviations
- DSD: Directive 67/548/EEC.
- DNEL: Derived No-Effect Level.
- PNEC: Predicted No-Effect Concentration.
- PBT: Persistent, bioaccumulative and toxic.
- vPvB: Very Persistent and very Bioaccumulative.

References
- HSDB® - Hazardous Substances Data Bank
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.

R7 May cause fire.
R21/22 Harmful in contact with skin and if swallowed.
R23 Toxic by inhalation.
R34 Causes burns.
R36 Irritating to eyes.
R36/38 Irritating to eyes and skin.
R43 May cause sensitisation by skin contact.
R48/20/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
H242 - Heating may cause a fire.
H302 - Harmful if swallowed.
H312 - Harmful in contact with skin.
H314 - Causes severe skin burns and eye damage.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H331 - Toxic if inhaled.
H335 - May cause respiratory irritation.
H373 - May cause damage to organs through prolonged or repeated exposure.
H411 - Toxic to aquatic life with long lasting effects.

Follow training instructions when handling this material.

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

Issue date: 12-January-2012
Revision date: 12-January-2012
Print date: 12-January-2012