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 Aerograde Ultra PL32A - Light, Medium & Heavy Grades
Registration number: -
Synonyms: None.
SDS number: 4
Issue date: 22-August-2011
Version number: 03
Revision date: 17-November-2015
Supersedes date: 18-September-2014

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

Physical hazards
Flammable liquids Category 2 H225 - Highly flammable liquid and vapour.

Health hazards
Serious eye damage/eye irritation Category 2 H319 - Causes serious eye irritation.
Specific target organ toxicity - single exposure Category 3 narcotic effects H336 - May cause drowsiness or dizziness.

Hazard summary
Highly flammable liquid and vapour. Causes serious eye irritation. May cause drowsiness and dizziness.

2.2. Label elements
Label according to Regulation (EC) No. 1272/2008 as amended
Contains:
Acetone

Hazard pictograms

Signal word
Danger

Hazard statements
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
Precautionary statements

Prevention
- P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P261: Avoid breathing mist or vapour.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response
- P370 + P378: In case of fire: Use foam, carbon dioxide, dry powder or water fog for extinction.

Storage
- P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

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

Supplemental label information
- EUH066 - Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>% Chemical name</th>
<th>CAS-No. / EC No.</th>
<th>REACH Registration No.</th>
<th>INDEX No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>25 - 50</td>
<td>67-64-1</td>
<td>-</td>
<td>606-001-00-8</td>
<td>#</td>
</tr>
<tr>
<td></td>
<td></td>
<td>200-662-2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Classification: Flam. Liq. 2;H225, Eye Irrit. 2;H319, STOT SE 3;H336

List of abbreviations and symbols that may be used above
- #: This substance has been assigned Community workplace exposure limit(s).

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
- 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
- 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 irritation persists get medical 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.

4.2. Most important symptoms and effects, both acute and delayed
- Irritation of eyes and mucous membranes. Vapours may cause drowsiness and dizziness. Prolonged or repeated skin contact may cause drying, cracking, or 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 highly flammable, and explosive vapour/air mixtures may be formed even at normal room temperatures. Vapours are heavier than air and may travel along the ground to some distant source of ignition and flash back.

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, harmful 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**
Keep upwind. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapours or mists. Avoid contact with skin and eyes.

**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
Eliminate all ignition sources. Stop the flow of material, if this is without risk.
Large Spills: Ventilate the area. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.
Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use.

6.4. Reference to other sections
For non-emergency personnel
Keep unnecessary personnel away. Wear protective clothing as described in Section 8 of this safety data sheet.
For emergency responders
Prevent further leakage or spillage if safe to do so. Do not discharge into drains, water courses or onto the ground.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Ground container and transfer equipment to eliminate static electric sparks. Use non-sparking hand tools and explosion-proof electrical equipment. Use only outdoors or in a well-ventilated area. Avoid breathing mists or vapours. Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours or mists. Avoid contact with skin and eyes. 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.

7.2. Conditions for safe storage, including any incompatibilities
Follow rules for flammable liquids. 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.

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)**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone (CAS 67-64-1)</td>
<td>STEL</td>
<td>3620 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1500 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>1210 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>500 ppm</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone (CAS 67-64-1)</td>
<td>TWA</td>
<td>1210 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>500 ppm</td>
</tr>
</tbody>
</table>

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

**Recommended monitoring procedures**
Follow standard monitoring procedures.

**Derived no-effect level (DNEL)**
Not available.

**Predicted no effect concentrations (PNECs)**
Not available.

8.2. Exposure controls
Appropriate engineering controls
Use explosion-proof ventilation equipment. Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours. Provide easy access to water supply or an emergency shower.

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
If eye contact is likely, safety glasses with side shields or chemical type goggles should be worn.

Skin protection
- Hand protection
Wear protective gloves. Butyl 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
In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment with combination filter (type A2/P2).

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

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Blue thixotropic gel.</td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Form</td>
<td>Thixotropic gel</td>
</tr>
<tr>
<td>Colour</td>
<td>Blue</td>
</tr>
<tr>
<td>Odour</td>
<td>Sweet. Ethereal.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not available.</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flash point</td>
<td>-17.0 °C (1.4 °F) Closed cup</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td></td>
</tr>
<tr>
<td>Flammability limit - lower (%)</td>
<td>4</td>
</tr>
<tr>
<td>Flammability limit - upper (%)</td>
<td>57</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>185 mmHg (20 °C/68 °F)</td>
</tr>
<tr>
<td>Vapour density</td>
<td>2 (Air = 1) (20 °C/68 °F)</td>
</tr>
<tr>
<td>Relative density</td>
<td>Heavy grade: 1.10 (20 °C/68 °F)</td>
</tr>
<tr>
<td></td>
<td>Medium grade: 1.03 (20 °C/68 °F)</td>
</tr>
<tr>
<td></td>
<td>Light grade: 0.95 (20 °C/68 °F)</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Slightly miscible.</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>Not available.</td>
</tr>
<tr>
<td>(n-octanol/water)</td>
<td></td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Not oxidising.</td>
</tr>
<tr>
<td>9.2. Other information</td>
<td></td>
</tr>
<tr>
<td>Explosive limit</td>
<td>Not available.</td>
</tr>
<tr>
<td>VOC (Weight %)</td>
<td>25 - 50 (Hylomar Test Method 1.1A Determination of Volatile Matter)</td>
</tr>
</tbody>
</table>
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
Risk of ignition. 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
Heat, flames and sparks. Avoid temperatures exceeding the flash point.

10.5. Incompatible materials
Strong oxidising agents.

10.6. 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

**Inhalation**
Vapours may cause drowsiness and dizziness. In high concentrations, vapours may be irritating to the respiratory system.

**Skin contact**
Prolonged or repeated skin contact may cause drying, cracking, or irritation.

**Eye contact**
Causes serious eye irritation.

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

Symptoms
Irritation of eyes and mucous membranes. Vapours may cause drowsiness and dizziness. Prolonged or repeated skin contact may cause drying, cracking, or irritation.

11.1. Information on toxicological effects

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

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone (CAS 67-64-1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal LD50</td>
<td>Rabbit</td>
<td>20 ml/kg</td>
</tr>
<tr>
<td>Inhalation LC50</td>
<td>Rat</td>
<td>50 mg/l, 8 Hours</td>
</tr>
<tr>
<td>Oral LD50</td>
<td>Rat</td>
<td>5800 mg/kg</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td></td>
<td>Prolonged or repeated skin contact may cause drying, cracking, or irritation.</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td></td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>Respiratory sensitisation</td>
<td>Based on available data, the classification criteria are not met.</td>
<td></td>
</tr>
<tr>
<td>Skin sensitisation</td>
<td>Based on available data, the classification criteria are not met.</td>
<td></td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Based on available data, the classification criteria are not met.</td>
<td></td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Based on available data, the classification criteria are not met.</td>
<td></td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Based on available data, the classification criteria are not met.</td>
<td></td>
</tr>
<tr>
<td>Specific target organ toxicity - single exposure</td>
<td>May cause drowsiness or dizziness.</td>
<td></td>
</tr>
<tr>
<td>Specific target organ toxicity - repeated exposure</td>
<td>Based on available data, the classification criteria are not met.</td>
<td></td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Based on available data, the classification criteria are not met.</td>
<td></td>
</tr>
<tr>
<td>Mixture versus substance information</td>
<td>Not applicable.</td>
<td></td>
</tr>
<tr>
<td>Other information</td>
<td>No other specific acute or chronic health impact noted.</td>
<td></td>
</tr>
</tbody>
</table>

SECONm 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.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone (CAS 67-64-1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic Fish LC50</td>
<td>Fathead minnow (Pimephales promelas)</td>
<td>&gt; 100 mg/l, 96 hours</td>
</tr>
</tbody>
</table>
12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

Partition coefficient
n-octanol/water (log Kow)
Acetone (CAS 67-64-1) -0.24

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil

No data available.

Mobility in general
The product is miscible with water. May spread in water systems.

12.5. Results of PBT and vPvB assessment

Not a PBT or vPvB substance or mixture.

12.6. Other adverse effects

The product contains volatile organic compounds which have a photochemical ozone creation potential.

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. UN number UN1133
14.2. UN proper shipping name ADHESIVES.
14.3. Transport hazard class(es)
   Class 3
   Subsidiary risk -
   Label(s) 3
   Hazard No. (ADR) 33
   Tunnel restriction code D/E
14.4. Packing group II
14.5. Environmental hazards -
14.6. Special precautions for user
   Read safety instructions, SDS and emergency procedures before handling.

RID
14.1. UN number UN1133
14.2. UN proper shipping name ADHESIVES.
14.3. Transport hazard class(es)
   Class 3
   Subsidiary risk -
   Label(s) 3
14.4. Packing group II
14.5. Environmental hazards -
14.6. Special precautions for user
   Read safety instructions, SDS and emergency procedures before handling.

ADN
14.1. UN number UN1133
14.2. UN proper shipping name ADHESIVES.
14.3. Transport hazard class(es)
   Class 3
   Subsidiary risk -
   Label(s) 3
14.4. Packing group II
14.5. Environmental hazards
Read safety instructions, SDS and emergency procedures before handling.

14.6. Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.

IATA

14.1. UN number
UN1133

14.2. UN proper shipping name
Adhesives.

14.3. Transport hazard class(es)
Class 3
Subsidiary risk -
Label(s) 3

14.4. Packing group
II

14.5. Environmental hazards
No.

14.6. Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.

IMDG

14.1. UN number
UN1133

14.2. UN proper shipping name
ADHESIVES.

14.3. Transport hazard class(es)
Class 3
Subsidiary risk -
Label(s) 3

14.4. Packing group
II

14.5. Environmental hazards
Marine pollutant
No.

14.6. Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.

14.7. Transport in bulk according to Annex II of Marpol 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.
  Not listed.
- Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended
  Not listed.
- Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended
  Not listed.
- Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended
  Not listed.
- Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended
  Not listed.
  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
  Acetone (CAS 67-64-1)
  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.
Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding, as amended
Not listed.

Other EU regulations
Directive 2012/18/EU on major accident hazards involving dangerous substances
Acetone (CAS 67-64-1)

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work
Acetone (CAS 67-64-1)

Directive 94/33/EC on the protection of young people at work
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. The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended and respective national laws implementing EC directives.

National regulations
Follow national regulation for work with chemical agents.

15.2. 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.
LD50: Lethal Dose, 50%.
LC50: Lethal Concentration, 50%.

References
Not available.

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
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

This SDS contains revisions in the following section(s):
2, 3, 9, 11.

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.