1. Identification

Product identifier: Hylomar Aerograde Ultra PL32A - Light, Medium & Heavy Grades

Other means of identification:

- SDS number: 4
- Recommended use: Non-Setting and Non-Hardening Gasketing Compound.
- Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor 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. Hazard(s) identification

Physical hazards: Flammable liquids Category 2

Health hazards:
- Serious eye damage/eye irritation Category 2A
- Specific target organ toxicity, single exposure Category 3 narcotic effects

OSHA defined hazards: Not classified.

Label elements

Signal word: Danger

Hazard statement: Highly flammable liquid and vapor. Causes serious eye irritation. May cause drowsiness or dizziness.

Precautionary statement

Prevention:
- Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Wear protective gloves/protection clothing/eye protection/face protection. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area.

Response:
- In case of fire: Use foam, carbon dioxide, dry powder or water fog for extinction. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. 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 inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.

Storage:
- Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

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

Hazard(s) not otherwise classified (HNOC):
- None known.

Supplemental information:
- None.
3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>25 - 50</td>
</tr>
</tbody>
</table>

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

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.

Most important symptoms/effects, acute and delayed
Irritation of eyes and mucous membranes. Vapors may cause drowsiness and dizziness. Prolonged or repeated skin contact may cause drying, cracking, or irritation.

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

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

5. Fire-fighting measures

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.

Specific hazards arising from the chemical
By heating and fire, harmful vapors/gases may be formed.

Special 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
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.

General fire hazards
The product is highly flammable, and explosive vapor/air mixtures may be formed even at normal room temperatures. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Keep upwind. Ventilate closed spaces before entering them. Avoid inhalation of vapors or mists. Avoid contact with skin and eyes. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear protective clothing as described in Section 8 of this SDS.

Methods and materials 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.

Environmental precautions
Never return spills in original containers for re-use. For waste disposal, see Section 13 of the SDS.

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

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 vapors. 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.

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. Store locked up.

8. Exposure controls/personal protection

Occupational exposure limits
US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone (CAS 67-64-1)</td>
<td>PEL</td>
<td>2400 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000 ppm</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<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>750 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>500 ppm</td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<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>590 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>250 ppm</td>
</tr>
</tbody>
</table>

Biological limit values

ACGIH Biological Exposure Indices

<table>
<thead>
<tr>
<th>Components</th>
<th>Value</th>
<th>Determinant</th>
<th>Specimen</th>
<th>Sampling Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone (CAS 67-64-1)</td>
<td>50 mg/l</td>
<td>Acetone</td>
<td>Urine</td>
<td>*</td>
</tr>
</tbody>
</table>

* - For sampling details, please see the source document.

Exposure guidelines
Follow standard monitoring procedures.

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

Individual protection measures, such as 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.

Skin protection

Other
Normal work clothing (long sleeved shirts and long pants) is recommended.

Respiratory protection

In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134.

Thermal hazards
Not applicable.

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 and chemical properties

Appearance
Blue thixotropic gel.

Physical state
Liquid.
<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Thixotropic gel.</td>
</tr>
<tr>
<td>Color</td>
<td>Blue.</td>
</tr>
<tr>
<td>Odor</td>
<td>Sweet. Ethereal.</td>
</tr>
<tr>
<td>Odor 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 available.</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flash point</td>
<td>1.4 °F (-17.0 °C) 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>Vapor pressure</td>
<td>185 mmHg (20 °C/68 °F)</td>
</tr>
<tr>
<td>Vapor 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></td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>Slightly miscible.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not available.</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>Other information</td>
<td></td>
</tr>
<tr>
<td>Explosive limit</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Not oxidizing.</td>
</tr>
<tr>
<td>VOC (Weight %)</td>
<td>25 - 50 (Hylomar Test Method 1.1A Determination of Volatile Matter)</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

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

Chemical stability Risk of ignition. 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. Avoid temperatures exceeding the flash point.

Incompatible materials Strong oxidizing agents.

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

11. Toxicological information

Information on likely routes of exposure

<table>
<thead>
<tr>
<th>Route</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Vapors may cause drowsiness and dizziness. In high concentrations, vapors may be irritating to the respiratory system.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Prolonged or repeated skin contact may cause drying, cracking, or irritation.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Ingestion may cause irritation and malaise.</td>
</tr>
<tr>
<td>Symptoms related to the physical, chemical and toxicological characteristics</td>
<td>Irritation of eyes and mucous membranes. Vapors may cause drowsiness and dizziness. Prolonged or repeated skin contact may cause drying, cracking, or irritation.</td>
</tr>
</tbody>
</table>
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>Acute Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>20 ml/kg</td>
</tr>
<tr>
<td>Inhilation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>50 mg/l, 8 Hours</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>5800 mg/kg</td>
</tr>
</tbody>
</table>

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

Serious eye damage/eye irritation
Causes serious eye irritation.

Respiratory or skin sensitization

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

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

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

Carcinogenicity

IARC Monographs. Overall Evaluation of Carcinogenicity
Not listed.

NTP Report on Carcinogens
Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not regulated.

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

Specific target organ toxicity - single exposure
May cause drowsiness or dizziness.

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

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

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.

<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</td>
<td>LC50</td>
<td>Fathead minnow (Pimephales promelas) &gt; 100 mg/l, 96 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability
No data available.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

<table>
<thead>
<tr>
<th>Components</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone (CAS 67-64-1)</td>
<td>-0.24</td>
</tr>
</tbody>
</table>

Mobility in soil
No data available.

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

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

13. Disposal considerations

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.
Local disposal regulations
Dispose of in accordance with local regulations.

Hazardous waste code
D001: Waste Flammable material with a flash point <140 °F

Waste from residues / unused products
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.

14. Transport information

DOT
- UN number: UN1133
- UN proper shipping name: ADHESIVES.
- Transport hazard class(es)
  - Class: 3
  - Subsidiary risk: -
  - Label(s): 3
- Packing group: II
- Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.
- Special provisions
  - 149, B52, IB2, T4, TP1, TP8
- Packaging exceptions
  - 150
  - Packaging non bulk: 173
  - Packaging bulk: 242

IATA
- UN number: UN1133
- UN proper shipping name: Adhesives.
- Transport hazard class(es)
  - Class: 3
  - Subsidiary risk: -
  - Label(s): 3
- Packing group: II
- Environmental hazards: No.
- Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

IMDG
- UN number: UN1133
- UN proper shipping name: ADHESIVES.
- Transport hazard class(es)
  - Class: 3
  - Subsidiary risk: -
  - Label(s): 3
- Packing group: II
- Environmental hazards: No.
- Marine pollutant: F-E, S-D
- Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.
- Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
  - Not applicable.

15. Regulatory information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
Acetone (CAS 67-64-1) LISTED
Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories**
- Immediate Hazard - Yes
- Delayed Hazard - No
- Fire Hazard - Yes
- Pressure Hazard - No
- Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**
Not listed.

**SARA 311/312 Hazardous chemical**
Yes

**SARA 313 (TRI reporting)**
Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**
Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**
Not regulated.

**Safe Drinking Water Act (SDWA)**
Not regulated.

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**
- Acetone (CAS 67-64-1) 6532

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**
- Acetone (CAS 67-64-1) 35 %WV

**DEA Exempt Chemical Mixtures Code Number**
- Acetone (CAS 67-64-1) 6532

**US 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. Massachusetts RTK - Substance List**
- Acetone (CAS 67-64-1)

**US. New Jersey Worker and Community Right-to-Know Act**
- Acetone (CAS 67-64-1)

**US. Pennsylvania Worker and Community Right-to-Know Law**
- Acetone (CAS 67-64-1)

**US. Rhode Island RTK**
- Acetone (CAS 67-64-1)

**US. California Proposition 65**
Not Listed.

**International Inventories**

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

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).
16. Other information, including date of preparation or last revision

Issue date: 18-September-2014
Revision date: 17-November-2015
Version #: 02

HMIS® ratings:
- Health: 2
- Flammability: 3
- Physical hazard: 0

List of abbreviations:
- LD50: Lethal Dose, 50%.
- LC50: Lethal Concentration, 50%.

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

This SDS contains revisions in the following section(s):
6, 9, 11.