1. Identification

Product identifier: Aerograde PL32 - Light, Medium & Heavy Grades

Other means of identification:
- SDS number: 3

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: Not classified.

Health hazards:
- Acute toxicity, oral: Category 4
- Skin corrosion/irritation: Category 2
- Serious eye damage/eye irritation: Category 2
- Carcinogenicity: Category 2
- Specific target organ toxicity, repeated exposure: Category 2 (Central nervous system)

OSHA defined hazards: Not classified.

Label elements:

Signal word: Danger

Hazard statement: Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. Suspected of causing cancer. May cause damage to organs (Central nervous system) through prolonged or repeated exposure.

Precautionary statement:

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Wear protective gloves/eye protection/face protection. Wash thoroughly after handling.

Response: If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth. If on skin: Wash with plenty of water. 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. Take off contaminated clothing and wash before reuse.

Storage: Store locked up.

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

Hazard(s) not otherwise classified (HNOC): None known.
3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichlormethane</td>
<td>75-09-2</td>
<td>25-65</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 develops and persists, get medical attention.

Eye contact
Immediately rinse eyes with water. Remove any contact lenses, and continue flushing eyes with running water for at least 15 minutes. Hold eyelids apart to ensure rinsing of the entire surface of the eye and lids with water. Get immediate medical attention.

Ingestion
Rinse mouth thoroughly. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content does not get into the lungs. Drink a few glasses of water or milk. Get medical attention immediately.

Most important symptoms/effects, acute and delayed
Symptoms include itching, burning, redness, and tearing of eyes. Itching, redness, burning of skin. Vapors may cause drowsiness and dizziness.

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, toxic vapors/gases may be formed. Solvent vapors may form explosive mixtures with air.

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 not flammable.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Keep upwind. Ventilate closed spaces before entering them. Avoid inhalation of vapors/spray and 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. Ventilate the area. Wipe up with absorbent material (e.g. cloth, fleece). Transfer to a container for disposal. Following product recovery, flush area with water. For waste disposal, see Section 13 of the SDS.

Environmental precautions
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. Use only outdoors or in a well-ventilated area. Avoid inhalation of vapors/spray and 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
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. Store in closed original container at temperatures between 5°C and 25°C.
8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichlormethane (CAS 75-09-2)</td>
<td>STEL</td>
<td>125 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>25 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>Dichlormethane (CAS 75-09-2)</td>
<td>TWA</td>
<td>50 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>Dichlormethane (CAS 75-09-2)</td>
<td>0.3 mg/l</td>
<td>Dichloromethane</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

Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors.

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. Polyvinyl alcohol 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 vapors, use suitable respiratory equipment. 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. 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.

Form

Thixotropic gel.

Color

Blue.

Odor

Sweet.

Odor threshold

Not available.

pH

Not applicable.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

Not applicable.

Flash point

Not applicable.

Evaporation rate

Not applicable.

Flammability (solid, gas)

Not applicable.
**Upper/lower flammability or explosive limits**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability limit - lower (%)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flammability limit - upper (%)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Explosive limit - lower (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive limit - upper (%)</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**Vapor properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor pressure</td>
<td>47 kPa (20 °C)</td>
</tr>
<tr>
<td>Vapor density</td>
<td>2.93 (Air = 1) (20 °C)</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.32 (20 °C)</td>
</tr>
</tbody>
</table>

**Solubility(ies)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solubility (water)</td>
<td>Slightly miscible.</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>Log Pow: 1.25 - 1.30 (measured)</td>
</tr>
</tbody>
</table>

**Other information**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto-ignition temperature</td>
<td>1112 °F (600 °C)</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Explosive limit</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not available.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Not available.</td>
</tr>
<tr>
<td>VOC (Weight %)</td>
<td>25 - 65 % (Hylomar Test Method 1.1A Determination of Volatile Matter)</td>
</tr>
</tbody>
</table>

**10. Stability and reactivity**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>The product is stable and non reactive under normal conditions of storage and transport.</td>
</tr>
<tr>
<td>Chemical stability</td>
<td>Material is stable under normal conditions.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>No dangerous reaction known under conditions of normal use.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Heat, sparks, flames, elevated temperatures.</td>
</tr>
<tr>
<td>Incompatible materials</td>
<td>Strong oxidizing agents. Alkali metals.</td>
</tr>
</tbody>
</table>

**11. Toxicological information**

**Information on likely routes of exposure**

<table>
<thead>
<tr>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Vapors may cause drowsiness and dizziness.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Causes skin irritation. May be absorbed through the skin.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Harmful if swallowed. Ingestion may cause irritation and malaise.</td>
</tr>
</tbody>
</table>

**Symptoms related to the physical, chemical and toxicological characteristics**

Symptoms include itching, burning, redness, and tearing of eyes. Itching, redness, burning of skin. Vapors may cause drowsiness and dizziness.

**Information on toxicological effects**

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harmful if swallowed.</td>
<td></td>
</tr>
</tbody>
</table>

**Test Results**

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerograde PL32 - Light, Medium &amp; Heavy Grades (CAS Mixture)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Inhalation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>15000 ppm</td>
</tr>
</tbody>
</table>
Test Results

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
<td>Rat</td>
<td>1410 - 2524 mg/kg</td>
</tr>
</tbody>
</table>

Components

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichlormethane (CAS 75-09-2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute Inhalation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>79 mg/l, 2 Hours</td>
</tr>
<tr>
<td><strong>Oral</strong></td>
<td>Rat</td>
<td>1600 mg/kg</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
- Causes skin irritation.

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

Respiratory or skin sensitization
- Respiratory sensitization Not classified.
- Skin sensitization Not classified.

Germ cell mutagenicity
- Positive in vitro, but negative in vivo assays.

Carcinogenicity
- IARC Monographs. Overall Evaluation of Carcinogenicity
  - Dichlormethane (CAS 75-09-2) 2B Possibly carcinogenic to humans.
- NTP Report on Carcinogens
  - Dichlormethane (CAS 75-09-2) Reasonably Anticipated to be a Human Carcinogen.
  - Dichlormethane (CAS 75-09-2) Cancer

Reproductive toxicity
- Not classified.

Specific target organ toxicity - single exposure
- Not classified.

Specific target organ toxicity - repeated exposure
- May cause damage to the following organs through prolonged or repeated exposure: Central nervous system. Liver. Kidneys.

Aspiration hazard
- Not classified.

Chronic effects
- Prolonged exposure may cause chronic effects.

Further information
- Symptoms may be delayed. Severe overexposure may cause cardiac sensitization and result in irregular rhythm.

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>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerograde PL32 - Light, Medium &amp; Heavy Grades</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Salmo garidneri</td>
<td>5.5 mg/l, 96 hours</td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Algae</td>
<td>EC50</td>
<td>&gt; 662 mg/l, 48 hours</td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>135 - 2270 mg/l, 48 hours</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>295 mg/l, 14 days</td>
</tr>
<tr>
<td></td>
<td>NOEC</td>
<td>357 mg/l, 8 days</td>
</tr>
</tbody>
</table>

Persistence and degradability
- The product is not readily biodegradable. BOD: 5 - 25% / 28 days. The product is intrinsically biodegradable. Degradation = 100% / 28 days.

Bioaccumulative potential
- Potential to bioaccumulate is low. BCF (Cyprinus carpio): 6.4 - 40, 42 days at 0.025 ppm. Log Pow: 1.25 - 1.30 (measured).

Partition coefficient n-octanol / water (log Kow)
- Dichlormethane (CAS 75-09-2) 1.25

Mobility in soil
- Not available.

Mobility in general
- The product is slightly soluble in water.
Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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

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  UN2810  
UN proper shipping name  Toxic liquid, organic, n.o.s. (Dichlormethane)

Class  6.1  
Subsidiary risk  6.1  
Label(s)  III  
Environmental hazards  No  
Marine pollutant  No  
Special precautions for user  Read safety instructions, SDS and emergency procedures before handling.

Special provisions  IB3, T7, TP1, TP28  
Packaging exceptions  153  
Packaging non bulk  203  
Packaging bulk  241  

IATA

UN number  UN2810  
UN proper shipping name  Toxic liquid, organic, n.o.s. (Dichlormethane)

Class  6.1  
Subsidiary risk  -  
Label(s)  6.1  
Environmental hazards  No  
ERG Code  6L  
Special precautions for user  Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number  UN2810  
UN proper shipping name  Toxic liquid, organic, n.o.s. (Dichlormethane)

Class  6.1  
Subsidiary risk  -  
Label(s)  6.1  
Environmental hazards  No  
EmS  F-A, S-A  
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.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Dichlormethane (CAS 75-09-2)  Cancer
Heart
Central nervous system
Liver
Skin irritation
Eye irritation

CERCLA Hazardous Substance List (40 CFR 302.4)

Dichlormethane (CAS 75-09-2)  LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical
Yes

SARA 313 (TRI reporting)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>% by wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichlormethane</td>
<td>75-09-2</td>
<td>25-65</td>
</tr>
</tbody>
</table>

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Dichlormethane (CAS 75-09-2)

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

Safe Drinking Water Act (SDWA)
Not regulated.

US state regulations

WARNING: This product contains a chemical known to the State of California to cause cancer.

US. Massachusetts RTK - Substance List
Dichlormethane (CAS 75-09-2)

US. New Jersey Worker and Community Right-to-Know Act
Dichlormethane (CAS 75-09-2)

US. Pennsylvania Worker and Community Right-to-Know Law
Dichlormethane (CAS 75-09-2)

US. Rhode Island RTK
Dichlormethane (CAS 75-09-2)

US. California Proposition 65

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance
Dichlormethane (CAS 75-09-2)

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>
</tbody>
</table>
### Country(s) or region
- Philippines
- United States & Puerto Rico

### Inventory name
- Philippine Inventory of Chemicals and Chemical Substances (PICCS)
- Toxic Substances Control Act (TSCA) Inventory

### On inventory (yes/no)*
- No
- Yes

*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

<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue date</td>
<td>15-January-2015</td>
</tr>
<tr>
<td>Revision date</td>
<td>-</td>
</tr>
<tr>
<td>Version #</td>
<td>01</td>
</tr>
<tr>
<td>Further information</td>
<td>HMIS® is a registered trade and service mark of the NPCA.</td>
</tr>
<tr>
<td>HMIS® ratings</td>
<td>Health: 2*</td>
</tr>
<tr>
<td></td>
<td>Flammability: 0</td>
</tr>
<tr>
<td></td>
<td>Physical hazard: 0</td>
</tr>
</tbody>
</table>

#### NFPA ratings

![NFPA rating graphic]

#### List of abbreviations
- HMIS®

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