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: HYLO®CLEAN

Registration number: -

Synonyms: None.

SDS number: 46

Issue date: 16-October-2014

Version number: 01

Revision date: -

Supersedes date: -

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

Identified uses: Solvent cleaner.

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

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 Directive 67/548/EEC or 1999/45/EC as amended

Classification: F+; R12, Xi; R36, R66-67

The full text for all R-phrases is displayed in section 16.

Classification according to Regulation (EC) No 1272/2008 as amended

Physical hazards

Aerosols: Category 1, H222 - Extremely flammable aerosol.

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.

Environmental hazards: Not classified for hazards to the environment.

Specific hazards: Irritating to eyes. Dries out the skin. Pressurised container may explode when exposed to heat or flame.

Main symptoms: Symptoms may include redness, oedema, drying, defatting and cracking of the skin. Irritation of eyes and mucous membranes. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. May cause discomfort if swallowed.

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

Signal word Danger
Hazard statements
H222 Extremely flammable aerosol.
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.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
Response
P312 Call a POISON CENTRE or doctor/physician if you feel unwell.
Storage
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.
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
None known.

SECTION 3: Composition/information on ingredients
3.2. Mixtures

General information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>%</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>60 - 100</td>
<td>67-64-1</td>
<td></td>
<td>606-001-00-8</td>
<td>#</td>
</tr>
<tr>
<td>Classification: DSD:</td>
<td>F;R11, Xi;R36, R66-67</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLP:</td>
<td>Flam. Liq. 2;H225, Eye Irrit. 2;H319, STOT SE 3;H336</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Petroleum gases, liquified | 30 - 60 | 68476-85-7 | 270-704-2 | 649-202-00-6 | K,S |
| Classification: | DSD: | F+;R12 | CLP: | Flam. Gas 1;H220 |

List of abbreviations and symbols that may be used above
DSD: Directive 67/548/EEC.
#: This substance has workplace exposure limit(s).
Note K: The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0.1 % w/w 1,3-butadiene (EINECS No 203-450-8). If the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P210-P403 (Table 3.1) or the S-phrases (2-)9-16 (Table 3.2) should apply. This note applies only to certain complex oil-derived substances in Part 3.
Note S: This substance may not require a label according to Article 17 (see section 1.3 of Annex I) (Table 3.1). This substance may not require a label according to Article 23 of Directive 67/548/EEC (see section 8 of Annex VI to that Directive) (Table 3.2).
Note U (Table 3.1): When put on the market gases have to be classified as "Gases under pressure", in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case.

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.
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**
Not likely, due to the form of the product. However: 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
Symptoms may include redness, oedema, drying, defatting and cracking of the skin. Irritation of eyes and mucous membranes. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. May cause discomfort if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen.

SECTION 5: Firefighting measures

General fire hazards
The product is extremely 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. Containers may explode when heated.

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**
  Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep upwind. Keep out of low areas. Ventilate closed spaces before entering them. Avoid inhalation of vapours/spray and contact with skin and eyes. 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.

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 leak if you can do so without risk. 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. Clean surface thoroughly to remove residual contamination.

6.4. Reference to other sections
Not available.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Do not use in areas without adequate ventilation. Avoid inhalation of vapours and spray mist and contact with skin and eyes. Avoid prolonged exposure. Keep away from sources of ignition - No smoking. The product is extremely flammable, and explosive vapour/air mixtures may be formed even at normal room temperatures. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material Wash thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices. Wear protective clothing as described in Section 8 of this safety data sheet.

7.2. Conditions for safe storage, including any incompatibilities
Follow rules for flammable liquids. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Keep away from food, drink and animal feeding stuffs. Keep in an area equipped with sprinklers. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from incompatible material. Store in closed original container at temperatures between 0°C and 40°C.
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>
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<tr>
<td></td>
<td></td>
<td>1500 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>1210 mg/m³</td>
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<tr>
<td></td>
<td></td>
<td>500 ppm</td>
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<tr>
<td>Petroleum gases, liquified (CAS 68476-85-7)</td>
<td>STEL</td>
<td>2180 mg/m³</td>
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<tr>
<td></td>
<td></td>
<td>1250 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>1750 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000 ppm</td>
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</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

Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours. Use explosion-proof equipment. Eye wash fountain and emergency showers are recommended.

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

Use approved safety goggles or face shield.

Skin protection

- Hand protection
  Wear protective gloves. Butyl rubber gloves are recommended. Breakthrough time >120 min. 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 gas filter (type A2).

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

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

Appearance

Liquid.

Physical state

Liquid.

Form

Aerosol.

Colour

Colourless.

Odour

Acetone.

Odour threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.
Initial boiling point and boiling range Not available.
Flash point Not available.
Evaporation rate Not available.
Flammability (solid, gas) Not applicable.
Upper/lower flammability or explosive limits
Flammability limit - lower (%) Not available.
Flammability limit - upper (%) Not available.
Vapour pressure Not available.
Vapour density Not available.
Relative density Not available.
Solubility(ies) Soluble in water.
Partition coefficient (n-octanol/water) Not available.
Auto-ignition temperature Not available.
Decomposition temperature Not available.
Viscosity Not available.
Explosive properties Not available.
Oxidizing properties Not available.
9.2. Other information
Explosive limit Not available.
VOC (Weight %) > 60 % (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 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.
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 Not likely, due to the form of the product. However: Ingestion may cause irritation and malaise.
Symptoms Symptoms may include redness, oedema, drying, defatting and cracking of the skin. Irritation of eyes and mucous membranes. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. May cause discomfort if swallowed.

11.1. Information on toxicological effects
Acute toxicity

<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</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>
</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 sensitisation  
Not classified.

Skin sensitisation  
Not classified.

Germ cell mutagenicity  
Not classified.

Carcinogenicity  
Not classified.

Reproductive toxicity  
Not classified.

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

Specific target organ toxicity - repeated exposure  
Not classified.

Aspiration hazard  
Not classified.

Mixture versus substance information  
Not applicable.

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.

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

12.2. Persistence and degradability  
The product is expected to be biodegradable.

12.3. Bioaccumulative potential  
The product is not expected to bioaccumulate.

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

Bioconcentration factor (BCF)  
Not available.

12.4. Mobility in soil  
The product contains organic solvents which will evaporate easily from all surfaces.

Mobility in general  
The acetone component is miscible with water and 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 is a volatile organic compound which has 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  
16 05 08*  
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  
UN1950  
14.2. UN proper shipping name  
Aerosols, flammable
14.3. Transport hazard class(es)

Class 2.1
Subsidiary risk -
Label(s) 2.1
Hazard No. (ADR) -
Tunnel restriction code (D)

14.4. Packing group -
14.5. Environmental hazards No
14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

RID
14.1. UN number UN1950
14.2. UN proper shipping name Aerosols, flammable

ADN
14.1. UN number UN1950
14.2. UN proper shipping name Aerosols, flammable

IATA
14.1. UN number UN1950
14.2. UN proper shipping name Aerosols, flammable

IMDG
14.1. UN number UN1950
14.2. UN proper shipping name Aerosols, flammable

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
  Not listed.
- Regulation (EC) No. 1005/2009 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 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.
- Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry
  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 authorisation, 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
  Petroleum gases, liquified (CAS 68476-85-7)
  Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding
  Petroleum gases, liquified (CAS 68476-85-7)

Other EU regulations

- Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances
  Not listed.
- 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)
  Petroleum gases, liquified (CAS 68476-85-7)
- Directive 94/33/EC on the protection of young people at work
  Petroleum gases, liquified (CAS 68476-85-7)

Other regulations

This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006. The product is classified and labelled in accordance with EC directives or respective national laws. 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.
Young people under 18 years old are not allowed to work with this product according to the EU Directive 94/33/EC on the protection of young people at work.

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 statements or R-phrases and H-statements under Sections 2 to 15

R11 Highly flammable.
R12 Extremely flammable.
R36 Irritating to eyes.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.
H220 Extremely flammable gas.
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

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.