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

1.1 Product identifier
   - Trade name: Haydn 46
   - Article number: 6120418603

1.2 Relevant identified uses of the substance or mixture and uses advised against
   - No further relevant information available.
   - Application of the substance / the mixture: Hydraulic fluid

1.3 Details of the supplier of the safety data sheet
   - Supplier: Alfa Laval Tumba AB
     Hans Stahles väg 7
     S-147 80 Tumba
     Sweden
     +46 8 530 650 00
     info.se@alfalaval.com

   - Further information obtainable from:
     For further questions regarding the safety data sheet, please contact your local Alfa Laval Sales Company which you find at www.alfalaval.com or in section 16 "Other Information" in the end of the safety data sheet

1.4 Emergency telephone number:
   - For immediate, life-threatening emergencies, call 999
   - For health advice and information (24h) dial 111 (NHS direct).
   - In Europe: Call 112 and ask for poison information.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
   - Classification according to Regulation (EC) No 1272/2008
     The product is not classified according to the CLP regulation.

2.2 Label elements
   - Labelling according to Regulation (EC) No 1272/2008: Void
   - Hazard pictograms: Void
   - Signal word: Void
   - Hazard statements: Void
   - Additional information:
     EUH210 Safety data sheet available on request.

2.3 Other hazards
   - Results of PBT and vPvB assessment
     - PBT: Not applicable.
     - vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures
   - Description: Mixture of substances listed below with nonhazardous additions.
Trade name: Haydn 46

**SECTION 4: First aid measures**

4.1 Description of first aid measures

General information:
In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Wash contaminated clothing before reuse.

After inhalation: Supply fresh air; consult doctor if symptoms persists.

After skin contact:
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
Product in use under high pressure that has been forced under the skin, is a serious situation that requires IMMEDIATE hospital treatment.

After eye contact:
IF IN EYES: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Remove contact lenses, if present and easy to do. Continue rinsing.

After swallowing:
Rinse out mouth and then drink plenty of water.
Do NOT induce vomiting.
If symptoms persist consult doctor.

4.2 Most important symptoms and effects, both acute and delayed

Information on high pressure equipment:
Accidental speed injection under the skin of this type of material can cause serious injury. Seek immediately medical attention if an accident of this nature occurs. Even if the wound at the injection site does not look that severe at a first glance, it may lead to malformation or amputation of the affected limb if not treated directly.
Rough skin. May cause skin dryness and irritation.

4.3 Indication of any immediate medical attention and special treatment needed

A high-pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.

**SECTION 5: Firefighting measures**

5.1 Extinguishing media

Suitable extinguishing agents:
Foam
Fire-extinguishing powder
Carbon dioxide
Water haze
Trade name: Haydn 46

42.0.3

Use fire extinguishing methods suitable to surrounding conditions.

- For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:
Carbon monoxide and carbon dioxide
Sulphur oxides (SOx)

5.3 Advice for firefighters

- Protective equipment:
  - Wear self-contained respiratory protective device.
  - Wear fully protective suit.
- Additional information Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
  Avoid contact with spilled material.
  Do not breathe vapour.
  Wear protective equipment. Keep unprotected persons away.
- 6.2 Environmental precautions:
  Do not allow to enter sewers/ surface or ground water.
  Send for recovery or disposal in suitable receptacles.
- 6.3 Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Send for recovery or disposal in suitable receptacles.
- 6.4 Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling
  Avoid the formation of oil haze.
  When using do not eat, drink or smoke.
  Avoid contact with skin and eyes.
  See Section 8 for information on personal protection equipment.
- Information about fire - and explosion protection: Keep ignition sources away - Do not smoke.
- 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles:
    Store in cool, dry conditions in well sealed receptacles.
    Store only in the original receptacle.
    Keep away from heat and direct sunlight.
  - Information about storage in one common storage facility: Store away from oxidising agents.
  - Further information about storage conditions: Store receptacle in a well ventilated area.
- 7.3 Specific end use(s)
  - Hydraulic fluid
  - Professional use only.
SECTION 8: Exposure controls/personal protection

· Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters

- Ingredients with limit values that require monitoring at the workplace:

| CAS: 64742-65-0 Distillates (petroleum), solvent-dewaxed heavy paraffinic |
|-----------------------------|-----------------------------|
| CONTROL PARAMETERS | Long-term value: 1 mg/m³ |
|                         | Oil mist, metal working fluids, Ref: GESTIS UK. |

- Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

- Personal protective equipment:

  - General protective and hygienic measures:
    - Be sure to clean skin thoroughly after work and before breaks.
    - Ensure that washing facilities are available at the work place.
    - Use only in well-ventilated areas.
    - Keep away from foodstuffs, beverages and feed.
    - Avoid contact with the eyes and skin.

  - Respiratory protection:
    - Use suitable respiratory protective device in case of insufficient ventilation.
      - Bp > 65 °C = Filter A1
      - Bp < 65 °C = Filter AX1
      - Hot Material = Filter A1P2

  - Protection of hands:
    - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
    - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

  - Material of gloves
    - Nitrile rubber, NBR
    - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

  - Penetration time of glove material
    - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection: Wear eye/face protection.

- Body protection:
  - Protective work clothing
  - Oil resistant protective clothing

(Contd. on page 5)
SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:
Form: Fluid

Colour: Light yellow

Odour: Characteristic

Odour threshold: Not determined.

pH-value at 20 °C: 7

Change in condition
Melting point/Melting range: <-27 °C
Boiling point/Boiling range: > 300 °C

Flash point: > 206 °C

Flammability (solid, gaseous): Not applicable.

Ignition temperature: >200 °C

Decomposition temperature: >300 °C

Self-igniting: Product is not self-igniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:
Lower: Not determined.
Upper: Not determined.

Vapour pressure: <0.01 kPa

Density: Not determined.
Relative density 0.87-0.90 kg/m3
Vapour density Not determined.
Evaporation rate Not determined.

Solubility in / Miscibility with water: Insoluble.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:
Dynamic: Not determined.
Kinematic at 40 °C: 46 cSt (6.72 cSt @ 100 °C)

Solvent content:
Organic solvents: 0.0 %

9.2 Other information
No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity Reacts with strong oxidising agents.
10.2 Chemical stability
10.3 Possibility of hazardous reactions
10.4 Conditions to avoid
10.5 Incompatible materials:
10.6 Hazardous decomposition products:

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- **Acute toxicity**

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<td>Oral LD₅₀</td>
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<tr>
<td>Dermal LD₅₀</td>
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<tr>
<td>Inhalative LC₅₀/₄ h</td>
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Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
  - **Skin corrosion/irritation**
    Prolonged and/or repeated skin contact combined with poor personal hygiene may cause inflammation of the skin in the form of dermatitis, eczema and oil acne. Product in use under high pressure that has been forced under the skin, is a serious situation that requires IMMEDIATE hospital treatment.
  - **Serious eye damage/irritation**
    Contact with eyes may result in mild irritation.
  - **Respiratory or skin sensitisation**
    Based on available data, the classification criteria are not met.
  - **Other information (about experimental toxicology):**
    If the product is overheated, fumes and vapors may be irritating to the upper respiratory tract and lungs.
  - **Acute effects (acute toxicity, irritation and corrosivity)**
    Low acute toxicity, but aspiration following ingestion and vomiting may cause severe and potentially fatal chemical pneumonia.
  - **Repeated dose toxicity**
    Repeated exposure may cause skin dryness or cracking.
  - **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
    Product contains mineral oils of types shown to be noncarcinogenic in animal skin-painting studies. Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC). Other components are not known to be associated with carcinogenic effects.
  - **Germ cell mutagenicity**
    Based on available data, the classification criteria are not met.
  - **Carcinogenicity**
    Based on available data, the classification criteria are not met.
  - **Reproductive toxicity**
    Based on available data, the classification criteria are not met.
  - **STOT-single exposure**
    Based on available data, the classification criteria are not met.
  - **STOT-repeated exposure**
    Based on available data, the classification criteria are not met.
  - **Aspiration hazard**
    Based on available data, the classification criteria are not met.
SECTION 12: Ecological information

- 12.1 Toxicity
  - Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability
  - Not easily biodegradable
- 12.3 Bioaccumulative potential
  - > 3
- 12.4 Mobility in soil
  - Low mobility in soil. Some components may penetrate the soil and contaminate groundwater.
- Additional ecological information:
  - General notes:
  Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
  Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- 12.5 Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
- 12.6 Other adverse effects
  - Spills may form a film on the water surface. This film may cause physical damage to aquatic organisms and reduce oxygen transfer.

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
  - Recommendation
  Must be specially treated adhering to official regulations.
  Hand over to hazardous waste disposers.
- European waste catalogue
  - Dangerous Waste
  The European Waste Catalogue (EWC) waste codes do not refer to product but to origin. The manufacturer is therefore unable to quote a waste code for products which are used in various industries. Any codes shown should be regarded as a recommendation to the user.
- Uncleaned packaging:
  - Recommendation:
  Packagings that may not be cleansed are to be disposed of in the same manner as the product. Disposal must be made according to official regulations.

SECTION 14: Transport information

- 14.1 UN-Number
  - ADR, ADN, IMDG, IATA
  - Void
- 14.2 UN proper shipping name
  - ADR, ADN, IMDG, IATA
  - Void
Trade name: Haydn 46

14.3 Transport hazard class(es)
   - ADR, ADN, IMDG, IATA
     - Class: Void

14.4 Packing group
   - ADR, IMDG, IATA
     - Void

14.5 Environmental hazards:
   - Marine pollutant: No

14.6 Special precautions for user
   - Not applicable.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
   - Not applicable.

UN "Model Regulation": Void

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
   - EU regulation (EC) no 1272/2008 (CLP)
   - EU Regulation (EC) no.1907/2006 (REACH)
   - EC DIRECTIVE 2008/98/EC (waste)
   - TSCA (Toxic Substance Control Act) - All chemical components in this material are included in, or are exceptions from the TSCA listing.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

LIMITATION OF LIABILITY

This document is only intended to be used as guidance as regards the risks of which we are aware that are associated with the product. Every individual who works with the product or in close proximity of it must receive suitable training. Individuals who come into contact with the product must be capable of using their own judgement as regards conditions or methods for handling, storing and using the product. Alfa Laval is not liable for demands, losses or damage of any kind that arise from flaws or deficiencies in this document or from using, handling, storing or disposing of the product unless it can be proven that Alfa Laval has acted in a grossly negligent manner. Beyond what has been agreed upon and specified in writing with Alfa Laval in the individual case, Alfa Laval makes no promises or assumes any liability, including but not limited to implicit guarantees regarding marketability or appropriateness in terms of both the information provided in this document and the product to which the information refers.

Please contact your local Alfa Laval Sales Company for further questions:
www.alfalaval.com

- Relevant phrases
  - H304 May be fatal if swallowed and enters airways.
- Department issuing MSDS: MACC -Materials & Chemistry Centre

(Contd. on page 9)
### Contact:
Please contact your local Alfa Laval Sales Company for further questions:

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**Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Asp. Tox. 1: Aspiration hazard, Hazard Category 1

* Data compared to the previous version altered.