GLUNZ & JENSEN

MATERIAL SAFETY DATA SHEET

Revision date: April 30th, 2008
Version: 1.0

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY

Product Name: HEADCAP SERVICE FLUID

HMIS codes
Health -2
Flammability – 1
Reactivity – 0
Contact rating - 2
PPE - A

Manufacturer: Glunz & Jensen A/S
Address: Haslevvej 13
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Denmark
Telephone: + 45 57 68 81 81
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Emergency phone number:
For Chemical Emergency Spill Leak Fire Exposure or Accident Call CHEMTREC Day or Night:
Domestic North America 800-424-9300
International, call +1 703-527-3887 (collect calls accepted).

2. COMPOSITION / INFORMATIONON ON HAZARDOUS INGREDIENT

Chemical name	Percent by weight	CAS number	ACGIH TLV	OSHA PEL
Mineral oil	>90%	8042-47-5	No data	No data

3. HAZARDOUS IDENTIFICATION

Potential Acute Health Effects:
Slightly hazardous in case of eye contact (irritant), of ingestion. Non-irritant for skin. Non-hazardous in case of inhalation.

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.
Repeated or prolonged exposure is not known to aggravate medical condition.

4. FIRST AID

Eye Contact:
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Skin Contact:
Wash with soap and water. Get medical attention if irritation develops.

Serious Skin Contact:
Not available.

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion:
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

5. FIRE FIGHTING MEASURES

Flammability of the Product: May be combustible at high temperature.
Auto-Ignition Temperature: Not available.
Flash Points: CLOSED CUP: 168.33°C (335°F).
Flammable Limits: Not available.
Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances:
Slightly flammable to flammable in presence of open flames and sparks, of heat.
Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not available.
Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:
SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.
Special Remarks on Explosion Hazards: Not available.

6. ACCIDENTAL RELEASE MEASURE

Small Spill:
Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Large Spill:
Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

7. HANDLING AND STORAGE

Precautions:
Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe gas/fumes/ vapor/spray. Keep away from incompatibles such as oxidizing agents.

Storage:
Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 24°C (75.2°F).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection:
Safety glasses. Lab coat.

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:
TWA: 5 STEL: 10 (mg/m3) as oil mist
Consult local authorities for acceptable exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance: Liquid. (Transparent water-white liquid)
Odor: Odorless.
Color: Clear
pH (1% soln/water): Not applicable.
Boiling Point: 310°C (590°F)
Melting Point: Not available.
Critical Temperature: Not available.
Specific Gravity: 0.835 @ 15.6 C (Water = 1)
Vapor Pressure: <0.1 kPa (@ 20°C)
Vapor Density: Not available.
Volatility: Not available.
Odor Threshold: Not available.
Water/Oil Dist. Coeff.: Not available.
Ionicity (in Water): Not available.
Dispersion Properties: Not available.
Solubility:
Insoluble in cold water.
Soluble in hydrocarbons.

10. STABILITY AND REACTIVITY

Stability: The product is stable.
Instability Temperature: Not available.
Conditions of Instability: Excess heat, incompatibles
Incompatibility with various substances: Reactive with oxidizing agents.
Corrosivity: Non-corrosive in presence of glass.
Special Remarks on Reactivity: May react with strong oxidizing agents
Special Remarks on Corrosivity: Not available.
Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Routes of Entry: Absorbed through skin. Eye contact.

Toxicity to Animals:
LD50: Not available.
LC50: Not available.

Chronic Effects on Humans: CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC.

Other Toxic Effects on Humans:
Slightly hazardous in case of ingestion.
Non-irritant for skin. Non-hazardous in case of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:
Highly refined mineral oils are not classified as human carcinogens. However, related forms (untreated and mildly-treated oils used in metal machining, mule spinning and jute processing) are listed as human carcinogens by both IARC (group 1) and NTP.

Special Remarks on other Toxic Effects on Humans:
Potential Health Effects:

Skin: This product is not expected to cause any skin irritation upon direct single or repeated and prolonged contact. However, similar chemical composition products applied to the skin of lab animals resulted in minimal to slight dermal irritation.

Eyes: May cause mild (minimal) eye irritation.

Inhalation: May cause respiratory tract irritation with coughing and shortness of breath. This product has a low vapor pressure and is not expected to present an inhalation hazard at ambient conditions. Caution should be taken to prevent aerosolization or misting. If aspiration occurs, it may lead to chemical pneumonitis which is characterized by pulmonary edema and hemorrhage and may be fatal. Signs of lung involvement include increased respiratory rate, increased heart rate, and bluish discoloration of the skin. Coughing, choking and gagging are often noted at the time of aspiration.

Ingestion: Ingestion is relatively non-toxic unless aspiration occurs. It has laxative properties and may cause gastrointestinal tract discomfort, abdominal cramps, vomiting and diarrhea.

Exposure to a large single dose or repeated small doses by inhalation, aspiration or ingestion leading to aspiration can lead to lipid pneumonia or lipid granuloma. These are low-grade, chronic localized tissue reactions which are not fatal.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: Not available.

Special Remarks on the Products of Biodegradation: Not available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal:
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. TRANSPORT INFORMATION

DOT Classification:
Not a DOT controlled material (United States).

Identification:
Not applicable.

Special Provisions for Transport:
Not applicable.

15. REGULATORY INFORMATION

Federal and State Regulations:
TSCA 8(b) inventory: Mineral oil

Other Regulations:
EINECS: This product is on the European Inventory of Existing Commercial Chemical substances.

Other Classifications:
WHMIS (Canada): Not controlled under WHMIS (Canada).
DSCL (EEC): This product is not classified according to the EU regulations. Not applicable.

HMIS (U.S.A.):
Health Hazard**:** 1
Fire Hazard**:** 1
Reactivity**:** 0
Personal Protection**:** a

National Fire Protection Association (U.S.A.):
Health**:** 0
Flammability: 1
Reactivity**:** 0
Specific hazard**:**
Protective Equipment**:**
Not applicable.
Lab coat.
Not applicable.
Safety glasses.

16. OTHER INFORMATION

Disclosure:
The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind express or implied is made with respect to the information contained herein. The data in this MSDS relates only to the specific material designated herein and does not apply to use in combination with any other material or process.

Definitions:

ACGIH: American Conference of Governmental Industrial Hygienists
AIHA: American Industrial Hygiene Association
CEILING: (TLV-Ceiling and PEL Ceiling Limit). The ceiling exposure limit or concentration not to be exceeded for even brief times.
DOT: Department of Transportation
HMIS: The Hazardous Materials Identification system (HMIS) developed by the National Paint and Coating Association (NPCA) to provide information in the acute health hazards, reactivity and flammability of products encountered in the workplace at room temperature.
HMIS codes assigned for this product are only suggested ratings based on anticipated normal screen printing applications. The employer has the ultimate responsibility for signing these rating and should fully evaluate the MSDS work practices and environmental conditions prior to assigning the appropriate ratings.
HMIS rating involves data interpretations that may vary from company to company.
HMIS Personal Protection Index of "X-Ask your supervisor" is given on this MSDS due to varying work conditions which may dictate different levels of protection. Please review this MSDS before determining appropriate protective equipment and beginning work.
IARC: International Agency for Research on Cancer
NFPA: National Fire Protection Association
NTP: National Toxicology Program
STEL: Short-Term Exposure Limit: ACGIH terminology for the short-term exposure limit or maximum concentration for a continuous exposure period of 15 minutes.
TLV: Threshold Limit Value. A term ACGIH uses to express the airborne concentration of a material to which workers can be exposed during a normal daily and weekly schedule without adverse effects.
TWA: Time-Weighted Average
VOC: Volatile Organic Compound