Printing date 26.09.2016

Revision: 26.09.2016

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

· 1.1 Product identifier

• Trade name: Clarke Hydraulic Oil HP 32

- · Article number: 3050830 (1 litre size) & 3050835 (5 litre size)
- · Registration number Mixture
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- Product category PC17 Hydraulic fluids
- · Application of the substance / the mixture Lubricant
- Uses advised against Processes involving extreme heat use advised against.

· 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Clarke International Hemnall Street Epping Essex CM16 4GL Tel: 0044 1992 565300

· Further information obtainable from: Product safety department.

• 1.4 Emergency telephone number: Tel: 0044 1992 565300

SECTION 2: Hazards identification

\cdot 2.1 Classification of the substance or mixture

• **Classification according to Regulation (EC) No 1272/2008** The substance 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
- · 2.3 Other hazards
- \cdot Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.1 Chemical characterisation: Substances

- · CAS No. Description
- Highly refined mineral oil
- $\cdot \ Identification \ number(s)$
- · Additional information: A blend of highly refined mineral oils with multifunctional additives

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information: Immediately remove any clothing soiled by the product.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:
- Immediately wash with water and soap and rinse thoroughly.
- If skin irritation continues, consult a doctor.
- · After eye contact:

Check for and remove any contact lenses.

- Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing:
- Wash mouth out with water

(Contd. on page 2)

Printing date 26.09.2016

Revision: 26.09.2016

Trade name: Clarke Hydraulic Oil HP 32

(Contd. of page 1)

Do not induce vomiting; call for medical help immediately.

If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

 \cdot 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

· Information for doctor:

High pressure injection injuries of mineral and synthetic oils through the skin require prompt surgical intervention and possibly steroid therapy, to minimise tissue damage and loss of function. Because entry wounds are small and do not reflect the seriousness of the underlying damage, surgical exploration to determine the extent of involvement may be necessary. Local anaesthetics or hot soaks should be avoided because they can contribute to swelling, vasospasm and ischaemia. Prompt surgical decompression, debridement and evacuation of foreign material should be performed under general anaesthetics, and wide exploration is essential.

· 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

· Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture Combustible
- · 5.3 Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

• 6.1 Personal precautions, protective equipment and emergency procedures Particular danger of slipping on leaked/spilled product. Ensure adequate ventilation

· 6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course. Do not allow to penetrate the ground/soil.

• 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 No dangerous substances are released.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Prevent formation of aerosols.

Ensure good ventilation/exhaustion at the workplace.

· Information about fire - and explosion protection: No special measures required.

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

• Requirements to be met by storerooms and receptacles: Prevent any seepage into the ground.

· Information about storage in one common storage facility: Store away from oxidising agents.

• Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles. Store in a bunded area.

(Contd. on page 3)

⁻ GB

Printing date 26.09.2016

Revision: 26.09.2016

Trade name: Clarke Hydraulic Oil HP 32

(Contd. of page 2)

• 7.3 Specific end use(s) No further relevant information available.

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: Not required.
- Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- Select PPE appropriate for the operations taking place taking into account the product properties.
- · General protective and hygienic measures:
- Wash hands before breaks and at the end of work.
- Do not carry product impregnated cleaning cloths in trouser pockets.
- Avoid close or long term contact with the skin.
- Do not eat, drink, smoke or sniff while working.
- Avoid contact with the eyes.
- Do not inhale gases / fumes / aerosols.
- Respiratory protection: Not necessary if room is well-ventilated.
- · 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 \cdot Material of gloves

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.

· 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:
- Safety glasses

Goggles recommended during refilling

- · Body protection:
- Oil resistant protective clothing

Body protection must be chosen depending on product properties, activity and possible exposure.

SECTION 9: Physical and chemical properties

 General Information 		
· Appearance:		
Form:	Fluid	
Colour:	Brown	
· Odour:	Mineral-oil-like	
· Change in condition		
Melting point/Melting range		
Boiling point/Boiling range:	Undetermined.	
· Flash point:	> 100 °C	
· Ignition temperature:	>250 °C	
· Danger of explosion:	Product does not present an explosion hazard.	
· Explosion limits:		
<u>_</u> ^	Not determined.	
Lower:	Not determined.	

GB -

Printing date 26.09.2016

Revision: 26.09.2016

Trade name: Clarke Hydraulic Oil HP 32

	(Contd. of page 3)
· Density at 20 °C:	0.86 g/cm ³
 Solubility in / Miscibility with water: 	Not miscible or difficult to mix.
 Viscosity: Kinematic at 40 °C: 9.2 Other information 	30 cSt No further relevant information available.

SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.

- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: Strong oxidising agents.
- · 10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- Acute toxicity Based on available data, the classification criteria are not met.
- · Primary irritant effect:
- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · 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 Inherently biodegradable
- 12.3 Bioaccumulative potential Product is not expected to bioaccumulate.
- 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Generally not hazardous for water
- \cdot 12.5 Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

- · Recommendation
- Recommended Hierarchy of Controls:
- Minimise waste;

(Contd. on page 5)

⁻ G

Printing date 26.09.2016

Revision: 26.09.2016

(Contd. of page 4)

Trade name: Clarke Hydraulic Oil HP 32

- Reuse if not contaminated;

- Recycle, if possible; or
- Safe disposal (if all else fails).

Contact waste processors for recycling information.

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Delivery of waste oil to offically authorised collectors only.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

· European waste catalogue

Waste key numbers in accordance with the European Waste Catalogue (EWC) are origin-referred defined. Since this product is used in several industries, no waste key can be provided by the supplier. The waste key number should be determined in arrangement with your waste disposal partner or the responsible authority.

· Uncleaned packaging:

· Recommendation:

Disposal must be made according to official regulations.

Container remains hazardous when empty. Continue to observe all precuations.

Containers, even those that are "empty," may contain residues that can develop flammable vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

SECTION 14: Transport information

· 14.1 UN-Number · ADR, ADN, IMDG, IATA	Void
 14.2 UN proper shipping name ADR, ADN, IMDG, IATA 	Void
· 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.	
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	Void

SECTION 15: Regulatory information

• 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.

· Department issuing SDS: Product safety department.

· Contact:

(Contd. on page 6)

GB

Printing date 26.09.2016

Revision: 26.09.2016

Trade name: Clarke Hydraulic Oil HP 32

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO) 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 CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

GB