SAFETY DATA SHEET REFRIGERATION LUBRICANT PAG 46-68-100-125-150- UNIVERSAL

Safety data sheet

Refrigeration Lubricant PAG 46-68-100-125-150- Universal

2/2/2018 revision 4

Section 1: identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Identification of the mixture: Commercial name: Refrigeration Lubricant PAG 46-68-100-125-150- Universal

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

Identified uses: PAG lubrificant for air conditioning systems

Section. 2: Hazard identification

2.1. Classification of substance of mixture

Regulation CE 1272/2008 (CLP): The product is not considered dangerous according to EC Regulation 1272/2008 (CLP).

Physico-chemical effects damaging to human health and the environment: No other danger

2.2. Label elements

The product is not considered dangerous according to EC Regulation CE 1272/2008 (CLP).

Hazard pictograms: None Indications of danger: None

Precautionary statement disposal: None

Special disposal: None

Special measures according to Annex XVII of REACH and subsequent adjustments: None

2.3. Other hazards

: None identified

Section 3: composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components according to CLP Regulation and classification: None.

Section 4: first aid measures

4.1. Description of first aid measures

Skin contact: Wash skin thoroughly with soap and water.

Eye contact: Any material that contacts the eye should be washed out immediatly with water. Call a doctor

Ingestion: Do not induce vomiting at all. IMMEDIATELY GO TO MEDICAL CHECK-UP.

Inhalation: Take the victim outdoors and keep him warm and at rest.

4.2. Most important symptoms and effects, both acute and delayed

None

4.3. Indication of any immediate medial attention and special treatment needed

Treatment: None

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Section 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

CO2.

Unsuitable extinguishing media: Not determined.

5.2. Special hazards arising from the substance or mixture

Do not inhale the gases produced by the explosion and combustion.

Combustion produces dense smoke.

5.3. Advice for firefighters

Use suitable respiratory equipment.

Separately collect contaminated water used to extinguish the fire. Do not discharge into the drain system.

If safety is practicable, move undamaged containers out of the hazard area.

Section 6: Accidental release measures

6.1. Personal precautions, Protective equopment and emergency procedures

Wear personal protective equipment.

Move people to a safe place.

See protective measures exposed to point 7 and 8.

6.2. Environmental precautions

Prevent penetration into soil/subsoil. Prevent runoff into surface water or drainage system.

Keep contaminated washing water and eliminate it.

In the event of a gas leak or penetration into watercourses, soil or drainage system, inform the responsible authorities.

Material suitable for collection: absorbent material, organic, sand

6.3. Method and material for conteinment and cleaning up

Wash with water.

6.4. Reference to other section

See section 8 and 13 for other information

Section 7: handling and storage

7.1. Precaution for safe handling

Avoid contact with skin and eyes, inhalation of vapours and fogs.

Do not eat or drink during work.

Please also refer to section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep container well closed. To maintain product quality, do not store in heat or direct sunlight. Store in a dry, cool and well-ventilated place. Keep away from food, drink and feed.

Incompatible materials: No particular substances. See also paragraph 10 hereafter.

Indication for rooms: Properly ventilated rooms.

7.3. Specific end use(s)

No information available.

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Section 8: Exposure controls/personal protection

8.1. Control parameters

No work exposure limits are available

Exposure limit values DNEL

N.A.

PNEC exposure limit values

N.A.

8.2. Exposure controls

Eye protection: Not required for normal use. However, operate according to good working practices.

Skin protection: No special precautions required for normal use.

Hand protection: Not required for normal use. Respiratory protection: Not required for normal use.

Thermal hazards: None

Environmental exposure controls: None Suitable engineering checks: None

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance and colour: colourless liquid

Odour: characteristic Odour threshold: N.A.

pH: N.O.

Melting/freezing point: N.O.

Boiling point and boiling range: >200 °C

Solid/gas flammability: N.O.

Upper/lower flammability limit or explosion: N.O.

Vapour density: N.O. Flash point: >200°C Evaporation speed: N.O. Vapour pressure: N.O.

Relative density: 0.985-1.052 g/mL (15°C)

Water solubility: insoluble Solubility in oil: N.O.

Partition coefficient (n-octanol/water): N.O.

Auto-ignition temperature: N.O. Decomposition temperature: N.O. Viscosity: 46-150 mm2/s (40°C) Explosive properties: N.O. Oxidizing properties: N.O.

9.2. Other information

Mixability: N.O. Liposolubility: N.O. Conductivity: N.O.

Characteristic properties of substance groups N.O.

C.O.V. (p/p): 0 %

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Section 10: Stability and reactivity

10.1. Reactivity

Steady under normal conditions

10.2. Chemical stability

Steady under normal conditions

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

Steady under normal conditions

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

No data available

Section 11: Toxicological information

11.1. Informazion on toxicological effects

Toxicological information regarding the product:

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(a) acute toxicity

Classification: Not classified

Considerations: Not classified on available data

(b) skin corrosion/irritation Classification: Not classified

Considerations: Not classified on available data (c) Serious eye injury/serious eye irritation

Classification: Not classified

Considerations: Not classified on available data

d) respiratory or dermal sensitisation

Classification: Not classified

Considerations: Not classified on available data

(e) germ cell mutagenicity Classification: Not classified

Considerations: Not classified on available data

f) Cancerogenicity

Classification: Not classified

Considerations: Not classified on available data

(g) toxicity for reproduction Classification: Not classified

Considerations: Not classified on available data

(h) STOT - single exposure Classification: Not classified

Considerations: Not classified on available data

i) STOT — repeated exposure Classification: Not classified

Considerations: Not classified on available data

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j) Hazard in case of aspiration Classification: Not classified

Considerations: Not classified on available data

Toxicological information regarding the main substances present in the product: N.A.

Section 12: Ecological information

12.1. Toxicity

Use according to good working practices, avoiding to waste the product in the environment.

Refrigeration Lubricant PAG 46-68-100-125-150- Universal Classification: Not classified for environmental hazards Considerations: Not classified on available data

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative Potencial

N.A.

12.4. Mobility

N.A.

12.5. Results of PBT and vPvB assessment

Substance vPvB: None - Substance PBT: None

12.6. Other adverse effects

None

Section 13: Disposal considerations

13.1. Waste treatment methods

Recover if possible. Operate according to current local and national regulations.

Section 14: Transport informations

14.1. UN Number

Not dangerous goods according to transport regulations.

14.2. UN shipping name

N.A.

14.3. Transport hazard classes

N.A.

14.4. Packaging group

N.A.

14.5. Environmental hazards

IMDG-Marine pollutant: No

14.6. User special precautions

N.A.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

N.A.

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Section 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

D.Lqs. 9/4/2008 n. 81

D.M. Lavoro 26/02/2004 (Occupational exposure limits)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) e (UE) n. 758/2013

Regulation (EC) 2015/830

Regulation (EC) n. 286/2011 (ATP 2 CLP)

Regulation (EC) n. 618/2012 (ATP 3 CLP)

Regulation (EC) n. 487/2013 (ATP 4 CLP)

Regulation (EC) n. 944/2013 (ATP 5 CLP)

Regulation (EC) n. 605/2014 (ATP 6 CLP)

Regulation (EC) n. 2015/1221 (ATP 7 CLP)

Regulation (EC) n. 2016/918 (ATP 8 CLP)

Regulation (EC) n. 2016/1179 (ATP 9 CLP)

Restrictions on the product or substances contained in accordance with Annex XVII of Regulation (EC) 1907/2006 (REACH) and subsequent adjustments:

Restrictions on the product: None.

Restrictions on contained substances: No restrictions.

Where applicable, please refer to the following regulations:

Ministerial circulars 46 and 61 (Aromatic amines).

Directive 2012/18/EU (Seveso III)

Regulation 648/2004/EC (Detergents).

D.L. 3/4/2006 n. 152 Environmental regulations

Directive 2004/42/EC (VOC Directive)

Directive EU 2012/18 (Seveso III):

Category Seveso III according to Annex 1, Part 1

None

15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the mixture

Section 16: Other information

Paragraphs modified from the previous revision:

SECTION 6: measures in case of accidental release

SECTION 7: handling and storage

SECTION 9: physical and chemical properties

SECTION 10: stability and reactivity

SECTION 11: toxicological information

SECTION 12: ecological information

SECTION 15: Regulatory information

SECTION 16: other information

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This document has been written by a competent SDS technician who has received appropriate training. Main bibliographical sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold CCNL - Annex 1

Higher Institute of Health - National Inventory of Chemical Substances

The information provided herein is based on our knowledge as at the above date. It refers only to the product indicated and does not constitute a guarantee of any particular quality.

The user is obliged to ensure the suitability and completeness of this information in relation to the specific use to be made of it. This sheet cancels and replaces all previous editions.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CLP: Classification, Labelling, Packaging.

DNEL: Derived level without effect.

EINECS: European Inventory of Existing European Chemical Substances on the Market.

GefStoffVO: Ordinance on Dangerous Substances in Germany.

GHS: Globally harmonised classification and labelling system for chemicals.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation of the "International Air Transport Association" (IATA).

ICAO: International Civil Aviation Organisation.

ICAO-TI: Technical Instructions of the "International Civil Aviation Organisation" (ICAO).

IMDG: International Maritime Dangerous Goods Code.

INCI: International Nomenclature of Cosmetic Ingredients.

KSt: Explosion Coefficient.

LC50: Lethal concentration for 50% of the test population.

LD50: Lethal dose for 50 per cent of the test population.

PNEC: Expected concentration without effect.

RID: Regulation concerning the international transport of dangerous goods by rail.

STEL: Short term exposure limit.
STOT: Organo-specific toxicity.
TLV: Threshold limit value.
TWA: Time weighted average

WGK: Water hazard class (Germany).