



## Safety Data Sheet dated 01/06/2024

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

#### 1.1. Product identifier

Identification of the substance:

Trade name:

38819

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

Synthetic oil for refrigeration HFC compressors

#### 1.3. Details of the supplier of the safety data sheet

Company:

NRF B.V.

Langenboomseweg 64

5451 JM Mill

Competent person responsible for the safety data sheet:

Michal Mieczkowski / [info@nrf.eu](mailto:info@nrf.eu) / +31(0)485476476

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

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

Adverse physicochemical, human health and environmental effects:

No other hazards

#### 2.2. Label elements

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

Symbols:

None

Hazard statements:

None

Precautionary statements:

None

Special Provisions:

None

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

#### 2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Identification of the substance:

N.A.

#### 3.2. Mixtures

N.A.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### In case of skin contact:

Injuries due to high pressure jets require a prompt surgical intervention and possibly a steroids therapy, to minimize tissue damage and loss of functions.

Every substance, in case of accidents with high pressure pipes or similar, can be accidentally injected under skin tissue, even without external noticeable skin damage. In this case it's necessary to bring the injured as soon as possible to the hospital for required treatment. Remove contaminated clothes.

Wash with plenty of water and soap.

#### In case of eyes contact:

Wash eyes immediately with plenty of water for some minute leaving eyelids open.

Immediately call a doctor if pain and redness persists.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

#### In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

#### In case of Inhalation:

In case of exposition to high concentration of vapours and mist remove person from the contaminated area and move to a well ventilated place. Call for medical attention if necessary.

Remove casualty to fresh air and keep warm and at rest.

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

None

### 4.3. Indication of any immediate medical attention and special treatment needed

Treatment:

None

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media:

Use class B fire extinguishing media: carbon dioxide, dry chemical powder, foam, sand, earth. Water.

Carbon dioxide (CO<sub>2</sub>).

Extinguishing media which must not be used for safety reasons:

Avoid usage of water jets. Use water only to cool the surface of the container exposed to fire.

None in particular.

### 5.2. Special hazards arising from the substance or mixture

Avoid to breathe combustion smoke, because, as a result of fire unburnt compounds can be formed, as long as other potentially dangerous compounds.

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

### 5.3. Advice for firefighters

Note: Cool with water all the containers not involved in fire but exposed to heat of fire, to avoid eventual explosion and propagation of fire.

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

Full protective suit equipped with respiratory equipment.

## SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures  
Avoid contact with skin and eyes, using appropriate protective equipments.  
In case of spillage of relevant quantities, most of all if in confined environment, avoid to breathe vapours and ventilate the environment, or use protective equipment for respiration.  
Wear personal protection equipment.  
Remove persons to safety.  
See protective measures under point 7 and 8.
- 6.2. Environmental precautions  
Avoid dispersion of the product and penetration in the soil, in the sewers or in surface water. If necessary inform competent local authorities.  
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.  
Retain contaminated washing water and dispose it.  
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.  
Suitable material for taking up: absorbing material, organic, sand
- 6.3. Methods and material for containment and cleaning up  
Stem in case of spillage of relevant quantities of product. Contains the spill of little quantities of product with earth, sand or other inert absorbing material. Transfer in appropriate impermeable containers, adequate for storage and transport of recovered material. Dispose according to current regulation.  
Wash with plenty of water.
- 6.4. Reference to other sections  
See also section 8 and 13

## SECTION 7: Handling and storage

- 7.1. Precautions for safe handling  
Avoid direct contact with the product.  
Avoid to breathe aerosol or vapours of the product, ensuring an adequate ventilation of workplace, most of all if confined.  
Avoid contact with skin and eyes, inhalation of vapours and mists.  
Do not eat or drink while working.  
See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities  
Maintain the product in original containers, stored in an environment and conditions such as is possible to ensure control and containment of leakage. Store in a cool place, away from any heat source or possible ignition and from exposure to sun light. Avoid accumulating electrostatic charge. Containers must be maintained closed. Ensure adequate ventilation of the room.  
Keep away from food, drink and feed.  
Incompatible materials:  
None in particular.  
Instructions as regards storage premises:  
Adequately ventilated premises.
- 7.3. Specific end use(s)  
None in particular

## SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters  
No specific requirements in normal conditions of use.  
No occupational exposure limit available  
DNEL Exposure Limit Values  
N.A.

PNEC Exposure Limit Values

N.A.

8.2. Exposure controls

Eye protection:

For more information refer to UNI-EN 166 standard.

Not needed for normal use. Anyway, operate according good working practices.

Protection for skin:

Use full suit and apron in suitable material; change immediately contaminated clothes and wash carefully before reuse.

It's advisable to maintain good personal and work clothes hygiene.

For more information refer to UNI-EN 465/466/467 standard.

No special precaution must be adopted for normal use.

Protection for hands:

Wear work gloves (for example in neoprene, nitrile or PVC), preferably with inner cover, resistant to mineral oils or solvents. Gloves must be changed when signs of wear are visible. Wear gloves after an adequate cleaning of the hands.

In case of not prolonged contacts, use of barrier creams may be an useful protection equipment.

Wear work gloves (for example in neoprene, nitrile or PVC), preferably with inner cover, resistant to mineral oils or solvents. Gloves must be changed when signs of wear are visible. Wear gloves after an adequate cleaning of the hands.

In case of not prolonged contacts, use of barrier creams may be an useful protection equipment.

Choice of protective gloves depends also on use conditions and needs to consider the information from the supplier.

For more information refer to UNI-EN 374 standard.

Not needed for normal use.

Respiratory protection:

Whenever operational conditions and other equipment to limit workers exposure will be not adequate to respect exposure limits as specified in section 8, other protective equipments for respiratory ways are needed: mask with filter for organic vapours and for dusts/mists (e.g. active carbon mask)

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

## SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance and colour:	Liquid of amber colour
Odour:	Characteristic
Odour threshold:	Not Relevant
pH:	Not Relevant
Melting point / freezing point:	Not Relevant
Initial boiling point and boiling range:	> 250°C (at atmospheric pressure)
Solid/gas flammability:	Not Relevant
Upper/lower flammability or explosive limits:	Not Relevant
Vapour density:	Not Relevant
Flash point:	> 240°C
Evaporation rate:	Not Relevant
Vapour pressure:	Not Relevant
Relative density:	< 1 kg/dm <sup>3</sup>
Solubility in water:	NO

Solubility in oil:	YES
Partition coefficient (n-octanol/water):	Not Relevant
Auto-ignition temperature:	Not Relevant
Decomposition temperature:	Not Relevant
Viscosity at 40°C:	: 92 – 108 cst
Explosive properties:	Not Relevant
Oxidizing properties:	Not Relevant

#### 9.2. Other information

Miscibility:	Not Relevant
Fat Solubility:	Not Relevant
Conductivity:	Not Relevant
Pour point:	< - 20°C
Substance Groups relevant properties	N.A.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Avoid contact with strong acids and bases and strong oxidizers.  
Stable under normal conditions

#### 10.2. Chemical stability

Product is stable to room temperature.  
Stable under normal conditions

#### 10.3. Possibility of hazardous reactions

None

#### 10.4. Conditions to avoid

Stable under normal conditions.

#### 10.5. Incompatible materials

None in particular.

#### 10.6. Hazardous decomposition products

None.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Toxicological information of the substance:

N.A.

If not differently specified, the information required in Regulation 453/2010/EC listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

#### 12.2. Persistence and degradability

The product floats on the water (if density is <1)  
Product is adsorbed superficially in the soil.  
The product evaporates difficultly.

- 12.3. Bioaccumulative potential  
N.A.
- 12.4. Mobility in soil  
N.A.
- 12.5. Results of PBT and vPvB assessment  
vPvB Substances: None - PBT Substances: None
- 12.6. Other adverse effects  
None

### SECTION 13: Disposal considerations

- 13.1. Waste treatment methods  
Dispose product (and emulsions in case of water-soluble lubrorefrigerants products) and containers sending it to approved companies, paying attention to obligations of DPR n.691 of 23/08/82 (Mandatory consortium for used oils) and Part IV of the Environmental code (D.Lgs. n. 152 of 3/4/2006) and updates  
Don't discharge in sewers, tunnels or water courses. Follow current legal obligations.  
Recover if possible. In so doing, comply with the local and national regulations currently in force.  
Where applicable, refer to the following regulatory provisions : 91/156/EEC, 91/689/EEC, 94/62/EC and subsequent amendments.

### SECTION 14: Transport information

- 14.1. UN number  
Not classified as dangerous in the meaning of transport regulations.
- 14.2. UN proper shipping name  
N.A.
- 14.3. Transport hazard class(es)  
N.A.
- 14.4. Packing group  
N.A.
- 14.5. Environmental hazards  
Marine pollutant: No  
N.A.
- 14.6. Special precautions for user  
N.A.
- 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code  
N.A.

### SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture  
Dir. 98/24/EC (Risks related to chemical agents at work)  
Dir. 2000/39/EC (Occupational exposure limit values)  
Dir. 2006/8/EC  
Regulation (EC) n. 1907/2006 (REACH)  
Regulation (EC) n. 1272/2008 (CLP)  
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013  
Regulation (EU) n. 453/2010 (Annex I)  
Regulation (EU) n. 286/2011 (ATP 2 CLP)  
Regulation (EU) n. 618/2012 (ATP 3 CLP)  
Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Where applicable, refer to the following regulatory provisions :



Directive 2003/105/CE ('Activities linked to risks of serious accidents') and subsequent amendments.

Regulation (EC) nr 648/2004 (detergents).

1999/13/EC (VOC directive)

D.M. of 13 february 2003: third list of harmonized laws concerning the implementation of directive 89/686/CEE on personal protective equipment. D. Lgs. N. 81 of 9/4/2008: implementation of article 1 of Law 3 august 2007, n. 123, on health and security safeguard in the workplace.

D.M. 14 january 2008: List of diseases for which is mandatory a report according to article 139 of Testo Unico, approved with decree of the President of the Italian Republic 30 june 1965, n. 1124, and subsequent integrations. D.P.R. n. 689 of 26/05/1959: Determination of companies and processes subject to control of the Fire protection command, to enhance fire protection. Directive 98/8/CE of 16 february 1998 on placing of biocidal products on the market.

Provisions related to directives 82/501/EC(Seveso), 96/82/EC(Seveso II):

N.A.

15.2. Chemical safety assessment

No

## SECTION 16: Other information

Don't use this product for uses different from those identified. In this case user may be subject to risk not evaluated.

This sheet has been compiled in accordance to Guidance on preparation of Safety Data Sheets for lubricants, prepared by the Industrial Group of Lube Companies (GAIL) - Website: <http://aispec.federchimica.it>

This safety data sheet has been completely updated in compliance to Regulation 453/2010/EU. This document was prepared by a competent person who has received appropriate training.

Main bibliographic 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 - Appendix 1

Insert further consulted bibliography

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

This data sheet is valid for the products POE of all ISO viscosity grades; this value is intended as a part of the trade name of the product.

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

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

CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.

EINECS: European Inventory of Existing Commercial Chemical Substances.

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.



IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
LTE:	Long-term exposure.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STE:	Short-term exposure. STEL:
	Short Term Exposure limit. STOT:
	Specific Target Organ Toxicity. TLV:
	Threshold Limiting Value.
TWATLV:	Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
WGK:	German Water Hazard Class.