



# HFO 22

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830  
Date of issue: 29/03/2012 Revision date: 13/03/2018 Supersedes: 28/06/2017 Version: 2.2

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : HFO 22  
Product code : 220071  
Type of product : Lubricants  
Product group : Blend

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

##### 1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial  
For professional use only  
Function or use category : Lubricants and additives

##### 1.2.2. Uses advised against

No additional information available

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

UNIL LUBRICANTS NV  
Bergensesteenweg 713  
1600 Sint - Pieters - Leeuw - Belgique-Belgie  
T 0032 02 365 02 00  
[info@unil.com](mailto:info@unil.com) - [www.unil.be](http://www.unil.be)

#### 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Cardiff Centre) Gwenwyn Ward, Llandough Hospital	Penarth CF64 2XX Cardiff	0344 892 0111	

### SECTION 2: Hazards identification

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

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

##### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

EUH-statements : EUH210 - Safety data sheet available on request.

#### 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Comments : DMSO extract < 3% (IP 346)  
The highly refined mineral oil contains <3% (w/w) DMSOextract, according to IP346.

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Distillates (petroleum), hydrotreated heavy paraffinic, Baseoil - unspecified, [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil of at least 100 SUS at 100 °F (19cSt at 40 °C). It contains a relatively large proportion of saturated hydrocarbons.]	(CAS-No.) 64742-54-7 (EC-No.) 265-157-1 (EC Index-No.) 649-467-00-8 (REACH-no) 01-2119484627-25	>= 80	Asp. Tox. 1, H304
Phenol, 4-dodecyl-	(CAS-No.) 104-43-8 (EC-No.) 203-202-9	< 0,1	Skin Corr. 1C, H314 Eye Dam. 1, H318 Repr. 1B, H360F Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-statements: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice (show the label where possible). Never give anything by mouth to an unconscious person.
First-aid measures after inhalation	: When symptoms occur: go into open air and ventilate suspected area. Assure fresh air breathing. Allow the victim to rest.
First-aid measures after skin contact	: Rinse skin with water/shower. Wash contaminated clothing before reuse. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists. Rinse immediately with plenty of water.
First-aid measures after ingestion	: Rinse mouth. Call a POISON CENTER/doctor if you feel unwell. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: None under normal use.
Symptoms/effects after skin contact	: Contact during a long period may cause light irritation.
Symptoms/effects after eye contact	: May cause slight irritation.

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

No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: Dry powder. Carbon dioxide. Foam. Sand. AFFF foam. Water spray.
Unsuitable extinguishing media	: Do not use a heavy water stream. When cooling/extinguishing: no water in the substance.

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

Fire hazard	: Combustible product.
Explosion hazard	: Not applicable.
Reactivity in case of fire	: Decomposes on exposure to temperature rise: release of harmful/irritant gases/vapours.
Hazardous decomposition products in case of fire	: Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.

#### 5.3. Advice for firefighters

Precautionary measures fire	: Post warning notices (including no smoking). Avoid ignition sources. No open flames, no sparks, and no smoking.
Firefighting instructions	: Evacuate area. Prevent fire fighting water from entering the environment. Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: Use water spray or fog for cooling exposed containers.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Relevant water authorities should be notified of any large spillage to water course or drain. Practice good housekeeping - spillage can be slippery on smooth surface either wet or dry.
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### 6.1.1. For non-emergency personnel

- Protective equipment : Concerning personal protective equipment to use, see section 8. Wear suitable protective clothing and gloves.
- Emergency procedures : Evacuate unnecessary personnel. Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel).
- Measures in case of dust release : Not applicable.

### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Clean up any spills as soon as possible, using an absorbent material to collect it. Ventilate area.

### 6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Remove all floating oil before biological treatment/discharge. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it. Collect all waste in suitable and labelled containers and dispose according to local legislation. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
- Other information : May be dangerously slippery if spilled.

### 6.4. Reference to other sections

For disposal of residues refer to section 13 : Disposal considerations" ". Concerning personal protective equipment to use, see section 8. See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Additional hazards when processed : Combustible product.
- Precautions for safe handling : Use personal protective equipment as required. Do not get in eyes, on skin, or on clothing. No open flames. No smoking. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product.

### 7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Comply with applicable regulations.
- Storage conditions : Store in original container. Keep container closed when not in use. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. Keep in fireproof place.
- Incompatible products : See Heading 10. Strong bases. Strong acids.
- Incompatible materials : See Heading 10. Sources of ignition. Direct sunlight.
- Heat and ignition sources : No flames, no sparks. Eliminate all sources of ignition.
- Information on mixed storage : Oxidation agents.
- Storage area : Store away from heat. Floors should be impervious, resistant to liquids and easy to clean.
- Special rules on packaging : Keep only in original container.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Personal protective equipment:

Avoid all unnecessary exposure.

#### Materials for protective clothing:

Separate working clothes from town clothes. Launder separately

#### Hand protection:

protective gloves. Breakthrough time : refer to the recommendations of the supplier

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Type	Material	Permeation	Thickness (mm)	Penetration	Standard
	Nitrile rubber (NBR), Neoprene rubber (HNBR), Polyvinylchloride (PVC)	6 (> 480 minutes)			

### Eye protection:

Eye protection should only be necessary where liquid could be splashed or sprayed. Chemical goggles or safety glasses

Type	Use	Characteristics	Standard
Safety glasses	Droplet		

### Skin and body protection:

Rinse and then wash skin thoroughly with water and soap

### Respiratory protection:

Avoid the formation of mists in the atmosphere. If this material is handled at elevated temperature or under mist forming conditions, approved respiratory protection equipment should be used. Wear appropriate mask

### Personal protective equipment symbol(s):



### Other information:

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Oily.
Colour	: colourless to yellow.
Odour	: characteristic.
Odour threshold	: No data available No data available
pH	: Not applicable
pH solution	: Not applicable
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 208 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Combustible product
Vapour pressure	: < 0,01 mm Hg
Relative vapour density at 20 °C	: No data available
Relative density	: 0,861
Solubility	: Material insoluble in water. soluble in most organic solvents.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: 21,2 cSt
Viscosity, dynamic	: No data available
Explosive properties	: Heating may cause a fire. Not classified as explosive according to EC criteria, but may present risks in the event of a fire.
Oxidising properties	: Not applicable.
Explosive limits	: No data available

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### 9.2. Other information

Additional information : At or above flash point, vapours present may burn in open or explode if confined when mixed with air and exposed to ignition source

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No decomposition if stored normally.

### 10.2. Chemical stability

Combustible product. Stable at ambient temperature and under normal conditions of use. Not established.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

All heat sources. Sparks. Open flame. Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong oxidizers. Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

**Distillates (petroleum), hydrotreated heavy paraffinic, Baseoil - unspecified, [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil of at least 100 SUS at 100 °F (19cSt at 40 °C). It contains a relatively large proportion of saturated hydrocarbons.] (64742-54-7)**

LD50 oral rat	> 5000 mg/kg (OECD 420 method)
LD50 dermal rabbit	> 2000 mg/kg (OECD 402 method)
LC50 inhalation rat (mg/l)	> 5,53 mg/l/4h (mg/L air, aerosol) (OECD 403 method)

Skin corrosion/irritation : Not classified

pH: Not applicable

Additional information : Based on available data, the classification criteria are not met

Serious eye damage/irritation : Not classified

pH: Not applicable

Additional information : Based on available data, the classification criteria are not met

Respiratory or skin sensitisation : Not classified

Additional information : Based on available data, the classification criteria are not met

Germ cell mutagenicity : Not classified

Additional information : Based on available data, the classification criteria are not met

Carcinogenicity - Description : Not classified

Additional information : Based on available data, the classification criteria are not met

Reproductive toxicity : Not classified

Additional information : Based on available data, the classification criteria are not met

STOT-single exposure : Not classified

Additional information : Based on available data, the classification criteria are not met

STOT-repeated exposure : Not classified

Additional information : Based on available data, the classification criteria are not met

Aspiration hazard : Not classified

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Viscosity, kinematic	21,2 mm <sup>2</sup> /s
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Potential adverse human health effects and symptoms : Not classified as dangerous preparation/substance. Based on available data, the classification criteria are not met.

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### SECTION 12: Ecological information

#### 12.1. Toxicity

Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

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LC50 fish 1	> 100 mg/l (Pimephales promelas, 96h) (OECD 203 method)
EC50 Daphnia 1	> 10000 mg/l (Gammarus pulex, 48h) (OECD 202 method)
EC50 Daphnia 2	> 10000 mg/l (Daphnia magna, 48h) (OECD 202 method)
NOEC (acute)	>= 100 mg/l (Pseudokirchnerella subcapitata, 72h) (OECD 201 method)
NOEC chronic fish	>= 1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox, 14/28d)
NOEC chronic crustacea	10 mg/l (Daphnia magna, 21d) (OECD 211 method)

#### 12.2. Persistence and degradability

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Persistence and degradability	Not established.
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Biodegradation	31 % (28d) (OECD 301F method)
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#### 12.3. Bioaccumulative potential

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Log Pow	No data available
Log Kow	No data available
Bioaccumulative potential	Not established.

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

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This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII  
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

#### 12.6. Other adverse effects

Additional information : Avoid release to the environment.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Recycling is preferred to disposal or incineration. Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. Take up liquid spill into absorbent material, e.g.: sand/earth.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	: Avoid release to the environment. Empty containers should be taken for recycling, recovery or waste in accordance with local regulation.
European List of Waste (LoW) code	: 13 02 00 - waste engine, gear and lubricating oils

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

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ADR	IMDG	IATA	ADN	RID
<b>14.5. Environmental hazards</b>				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

### 14.6. Special precautions for user

Special transport precautions : Not regulated or not hazardous

#### - Overland transport

Transport regulations (ADR) : Not subject

#### - Transport by sea

Transport regulations (IMDG) : Not subject

#### - Air transport

No data available

#### - Inland waterway transport

No data available

#### - Rail transport

Transport regulations (RID) : Not subject

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

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes:

Revision - See : \*

Section	Changed item	Change	Comments
	Comments	Added	
	Supersedes	Modified	
	Revision date	Modified	
3	Composition/information on ingredients	Modified	
8.2	Hand protection	Modified	
13.1	European List of Waste (LoW) code	Added	

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

Other information : None.

Full text of H- and EUH-statements:

Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Asp. Tox. 1	Aspiration hazard, Category 1

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Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Repr. 1B	Reproductive toxicity, Category 1B
Skin Corr. 1C	Skin corrosion/irritation, Category 1C
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H360F	May damage fertility.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH210	Safety data sheet available on request.

SDS EU (REACH Annex II)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*