HF-S HYDRAULIC FLUID BARDAHL

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Reference number: 36981
Issue date: 24-09-20 Revision date: 07-11-23 Supersedes version of: 24-09-20 Version: 1.1

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

1.1. Product identifier

Product form : Mixture
Product name : HF-S HYDRAULIC FLUID BARDAHL
UFI : RTTT-CJN1-8E3K-FNP3
Product code : 36981 # 7313698VR0
Type of product : Lubricants and additives

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

1.2.1. Relevant identified uses

Intended for general public
Main use category : Consumer use
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

Distributor
SADAPS BARDAHL Additives & Lubricants
ZI TOURNAI OUEST 2 - RUE DU MONT DES CARLIERS, 3
7522 TOURNAI
BELGIQUE
T +32 (0).69.59.03.60, F +32 (0).69.59.03.61
msds@bardahlfrance.com, www.bardahl.fr

Supplier
SADAPS BARDAHL Additives & Lubricants
ZI TOURNAI OUEST 2 - RUE DU MONT DES CARLIERS, 3
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BELGIQUE
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msds@bardahlfrance.com, www.bardahl.fr

1.4. Emergency telephone number

Emergency number : + 32 (0)70.245.245 / +33 (0)1.45.42.59.59

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital Msida MSD 2090 Msida	112 +356 2545 6508	
Saudi Arabia	Poison Control Center-Riyadh	General Directorate of Health Affairs Medial Province	+966 112324180 +966 112324189	
United Arab Emirates	Health Authority – Abu Dhabi (HAAD) Poison & Drug Information Center (PDIC)	P.O. Box 5674	+ 800-424	
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER	+44 20 7188 7188	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity (inhalation:vapour) Category 4	H332
Aspiration hazard, Category 1	H304

Hazardous to the aquatic environment – Acute Hazard Not classified

Hazardous to the aquatic environment – Chronic Hazard Not classified

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07 GHS08

Signal word (CLP) : Danger

Contains : Dec-1-ene, dimers, hydrogenated; Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

Hazard statements (CLP) : H304 - May be fatal if swallowed and enters airways.
H332 - Harmful if inhaled.

Precautionary statements (CLP) : P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P260 - Do not breathe vapours.
P271 - Use only outdoors or in a well-ventilated area.
P312 - Call a POISON CENTER, doctor if you feel unwell.
P331 - Do NOT induce vomiting.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER, a doctor.
P405 - Store locked up.
P501 - Dispose of contents and container to a hazardous or special waste collection point.

Child-resistant fastening : Applicable

Tactile warning : Applicable

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Dec-1-ene, dimers, hydrogenated	CAS-No.: 68649-11-6 EC-No.: 500-228-5 REACH-no: 01-2119493069-28	50 - <100	Acute Tox. 4 (Inhalation), H332 Asp. Tox. 1, H304
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (Note L)	CAS-No.: 72623-86-0 EC-No.: 276-737-9 EC Index-No.: 649-482-00-X REACH-no: 01-2119474878-16	20 - <50	Asp. Tox. 1, H304
Alkylamine	EC-No.: 620-540-6	0,10 - <0,25	Acute Tox. 4 (Oral), H302 (ATE=1350 mg/kg bodyweight) Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1)

Specific concentration limits:		
Name	**Product identifier**	**Specific concentration limits**
Alkylamine	EC-No.: 620-540-6	(0,1 ≤ C < 0,25) Aquatic Acute 1; H400 (0,1 ≤ C < 0,25) Aquatic Chronic 1; H410

Note L - The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 (“Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method” Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.
Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If medical advice is needed, have product container or label at hand.

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : Remove contaminated clothes. Wash skin with plenty of water. Wash contaminated clothing before reuse.

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.

First-aid measures after ingestion : Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects after inhalation : May be fatal if swallowed and enters airways. Harmful if inhaled.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Water spray. Dry powder. Foam.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.
Other information : Prevent liquid from entering sewers, watercourses, underground or low areas.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area. Eliminate every possible source of ignition. Ensure adequate ventilation, especially in confined areas. Keep public away from danger area. Equip cleanup crew with proper protection.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Dike for recovery or absorb with appropriate material. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Prevent liquid from entering sewers, watercourses, underground or low areas. Do not allow product to spread into the environment.

6.3. Methods and material for containment and cleaning up

For containment : Recover the product with absorbent material.
Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it. Dispose of contaminated materials in accordance with current regulations.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of solid materials or residues refer to section 13 : "Disposal considerations".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not eat, drink or smoke when using this product. Ensure good ventilation of the work station.
Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Provide local exhaust or general room ventilation.
Storage conditions : Store in a closed container. Keep out of frost.
Heat and ignition sources : Keep away from naked flames/heat. Keep away from ignition sources.
Storage area : Store in a dry place. Store in a well-ventilated place.
Special rules on packaging : Store in original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

HF-S HYDRAULIC FLUID BARDAHL	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Mineral oils (AHRMO)
IOEL TWA	5 mg/m³ (inhalable fraction)
Remark	(Year of adoption 2010)
Regulatory reference	SCOEL Recommendations

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Ensure that there is a suitable ventilation system.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:
Safety glasses. ISO 16321-1

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing. Wash contaminated clothes

Hand protection:
Gloves. ISO 374-1

Hand protection					
Type	**Material**	**Permeation**	**Thickness (mm)**	**Penetration**	**Standard**
Reusable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	≥0.38		

Other skin protection

Materials for protective clothing:
Wear suitable protective clothing

8.2.2.3. Respiratory protection

Respiratory protection:
Good ventilation of the workplace required

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Green.
Odour	:	characteristic.
Odour threshold	:	Not available
Melting point	:	Not available
Freezing point	:	Not available
Boiling point	:	Not available
Flammability	:	Not available
Explosive limits	:	Not available
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	156 °C
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	Not available
Viscosity, kinematic	:	18,7 mm²/s (40°C)
Solubility	:	insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	Not available
Vapour pressure at 50°C	:	Not available
Density	:	0,82 g/cm³ (15°C)
Relative density	:	Not available
Relative vapour density at 20°C	:	Not available
Particle characteristics	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Stable under normal conditions of use.

10.4. Conditions to avoid

Heat. Open flame. Sparks. Water, humidity. Freezing.

10.5. Incompatible materials

Strong bases. Strong acids. oxidizing materials.

10.6. Hazardous decomposition products

Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Inhalation:vapour: Harmful if inhaled.

HF-S HYDRAULIC FLUID BARDAHL	
ATE CLP (vapours)	14,667 mg/l/4h

Dec-1-ene, dimers, hydrogenated (68649-11-6)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 3000 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	1,17 mg/l/4h

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)	
LD50 oral rat	> 5000 mg/kg OCDE 401
LD50 dermal rabbit	> 2000 mg/kg OCDE 402
LC50 Inhalation - Rat	> 5,53 mg/l OCDE 403
LC50 Inhalation - Rat (Dust/Mist)	> 5,53 mg/l/4h

Alkylamine	
LD50 oral rat	1350 mg/kg (OCDE 401)

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : May be fatal if swallowed and enters airways.

HF-S HYDRAULIC FLUID BARDAHL	
Viscosity, kinematic	18,7 mm²/s (40°C)

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

11.2.2. Other information

Potential adverse human health effects and symptoms : Harmful if inhaled.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute) : Not classified.

Hazardous to the aquatic environment, long–term (chronic) : Not classified.

Dec-1-ene, dimers, hydrogenated (68649-11-6)	
LC50 - Fish [1]	> 1000 mg/l
EC50 - Crustacea [1]	> 1000 mg/l
EC50 72h - Algae [1]	> 1000 mg/l
NOEC chronic crustacea	125 mg/l (Daphnie, 21 jr)

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)	
LC50 - Fish [1]	> 100 mg/l Pimephales promelas, 96h (OCDE 203)
LC50 - Other aquatic organisms [1]	> 10000 mg/l Gammarus pulex, (OCDE 202)
NOEC chronic fish	> 1000 mg/l
NOEC chronic crustacea	> 10 mg/l Daphnia magna, (OCDE 211)
NOEC chronic algae	≥ 100 mg/l (72h - OCDE 201)

Alkylamine	
LC50 - Fish [1]	0,1 mg/l (OCDE 203)
EC50 - Crustacea [1]	0,043 mg/l (OCDE 202)
NOEC (chronic)	0,0107 mg/l CE 10 (Daphnie, 21 jr) (OCDE 211)

12.2. Persistence and degradability

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)	
Persistence and degradability	Not readily biodegradable.
Biodegradation	31 % (28d) OCDE 301F

Alkylamine	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)	
Partition coefficient n-octanol/water (Log Kow)	> 6

12.4. Mobility in soil

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (72623-86-0)	
Ecology - soil	insoluble in water.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Sewage disposal recommendations : Do not discharge into drains or the environment.

Product/Packaging disposal recommendations : Collect all waste in suitable and labelled containers and dispose according to local legislation.

Additional information : Empty the packaging completely prior to disposal. Do not re-use empty containers.

Ecological waste information : Do not discharge the product into the environment.

European List of Waste (LoW, EC 2000/532) : 13 01 11* - synthetic hydraulic oils

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available			

14.6. Special precautions for user

Overland transport
Not applicable

Transport by sea
Not applicable

Air transport
Not applicable

Rail transport
Not applicable

14.7. Maritime transport in bulk according to IMO instruments

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

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	**Applicable on**
3(b)	HF-S HYDRAULIC FLUID BARDAHL ; Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based ; Alkylamine
3(c)	Alkylamine

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 2024/590)
Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (EC 273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Germany

Employment restrictions	:	Observe restrictions according Act on the Protection of Working Mothers (MuSchG). Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).
Water hazard class (WGK)	:	WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).
Override matching entry (12. BImSchV)	:	Is not subject to the Major Accidents Ordinance (12. BImSchV)

Netherlands

SZW List of Carcinogenic Substances	:	None of the components are listed
SZW List of Mutagenic Substances	:	None of the components are listed
SZW List of Reprotoxic Substances – Breastfeeding	:	None of the components are listed
SZW List of Reprotoxic Substances – Fertility	:	None of the components are listed
SZW List of Reprotoxic Substances – Development	:	None of the components are listed

Denmark

Danish National Regulations	:	Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Acute Not classified	Hazardous to the aquatic environment – Acute Hazard Not classified
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic Not classified	Hazardous to the aquatic environment – Chronic Hazard Not classified
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Safety Data Sheet (SDS), EU

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.