POWER SPRAY BARDAHL

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Reference number: 3271
Issue date: 04-09-18 Revision date: 19-08-25 Supersedes version of: 27-01-21 Version: 2.0

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

1.1. Product identifier

Product form : Mixture
Product name : POWER SPRAY BARDAHL
UFI : 2417-YE3N-490W-8WCH
Product code : 3271 # 731327R2
Type of product : Aerosol
Vaporizer : Aerosol

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.be

Supplier
SADAPS BARDAHL Additives & Lubricants
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BELGIQUE
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msds@bardahlfrance.com, www.bardahl.be

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]

Aerosol, Category 1	H222;H229
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Aspiration hazard, Category 1	H304
Hazardous to the aquatic environment – Chronic Hazard, Category 2	H411

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) :



GHS02 GHS07 GHS09

Signal word (CLP) : Danger

Hazard statements (CLP) : H222 - Extremely flammable aerosol.
H229 - Pressurised container: May burst if heated.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P264 - Wash hands thoroughly after handling.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, eye protection, face protection.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER, a doctor.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P391 - Collect spillage.
P501 - Dispose of contents/container to a hazardous or special waste collection point.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 - Do not spray on an open flame or other ignition source.
P251 - Do not pierce or burn, even after use.
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C, 122 °F.

EUH-statements : EUH208 - Contains Amines, C10-14-tert-alkyl. May produce an allergic reaction.

Extra phrases : Use as per instructions and specifically for this purpose.

Child-resistant fastening : Not applicable

Tactile warning : Not applicable

2.3. Other hazards

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

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]
butane (<0.1% (203-450-8)) substance with national workplace exposure limit(s) (AT, BE, DE, DK, ES, FI, FR, GB, HU, IE, LV, PL) (Note C)(Note U)	CAS-No.: 106-97-8 EC-No.: 203-448-7 EC Index-No.: 601-004-00-0 REACH-no: 01-2119474691-32	40	Flam. Gas 1A, H220 Press. Gas
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics substance with national workplace exposure limit(s) (FR)	EC-No.: 918-481-9 REACH-no: 01-2119457273-39	20-30	Asp. Tox. 1, H304 EUH066
oleic acid, compound with (Z)-N-octadec-9-enylpropane-1,3-diamine (2:1)	CAS-No.: 34140-91-5 EC-No.: 251-846-4 REACH-no: 01-2119974119-29	<3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT RE 2, H373 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 2, H411
Amines, C10-14-tert-alkyl	EC-No.: 701-175-2 REACH-no: 01-2119456798-18	<1	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Acute Tox. 3 (Dermal), H311 (ATE=300 mg/kg bodyweight) Acute Tox. 2 (Inhalation), H330 (ATE=0,5 mg/l/4h) Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 (M=1)
C16-18-(even numbered, saturated and unsaturated)-alkylamines	CAS-No.: 1213789-63-9 EC-No.: 627-034-4 REACH-no: 01-2119473797-19	<0,5	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)

Note C - Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.
Note U - When put on the market gases have to be classified as ‘Gases under pressure’, in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case. The following codes are assigned:. Press. Gas (Comp.), Press. Gas (Liq.), Press. Gas (Ref. Liq.), Press. Gas (Diss.). Aerosols shall not be classified as gases under pressure (See Annex I, Part 2, Section 2.3.2.1, Note 2).
Product subject to CLP Annex I, item 1.1.3.7. The disclosure rules of the components is modified in this case.
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 skin contact : Causes skin irritation. May produce an allergic reaction.
Symptoms/effects after eye contact : Causes serious eye irritation.

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

Fire hazard : Extremely flammable aerosol.
Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. Pressurised container: May burst if heated.
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.

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.

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. Provide good ventilation in process area to prevent formation of vapour. For further information refer to section 8: "Exposure controls/personal protection". Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use.
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	:	Keep out of frost.
Heat and ignition sources	:	Keep away from naked flames/heat. Keep away from ignition sources. Do not expose to temperatures exceeding 50 °C/ 122 °F.
Information on mixed storage	:	Keep away from food, drink and animal feeding stuffs.
Storage area	:	Store in a well-ventilated place. Store in a dry 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

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	
France - Occupational Exposure Limits	
VME (OEL TWA)	1200 mg/m³
	184 ppm

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	5 mg/m³ 8h
IOEL STEL	10 mg/m³ 15min
Belgium - Occupational Exposure Limits	
OEL TWA	5 mg/m³ 8h, mist (Belgium, 5/2021)
OEL STEL	10 mg/m³ 15min, mist (Belgium, 5/2021)
Bulgaria - Occupational Exposure Limits	
OEL TWA	5 mg/m³ 8h ; Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgarie, 6/2021).
Croatia - Occupational Exposure Limits	
GVI (OEL TWA)	5 mg/m³
Czech Republic - Occupational Exposure Limits	
PEL (OEL TWA)	5 mg/m³ 8h; aerosol ; Government regulation of Czech Republic PEL/NPK-P (République Tchèque, 5/2021).
NPK-P (OEL C)	10 mg/m³ 15min; aerosol ; Government regulation of Czech Republic PEL/NPK-P (République Tchèque, 5/2021).

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
Denmark - Occupational Exposure Limits	
OEL TWA	1 mg/m³ 8 h; mist and particles; Working Environment Authority (Danemark, 11/2021).
Finland - Occupational Exposure Limits	
HTP (OEL TWA)	5 mg/m³ 8h ; mist ; Institute of Occupational Health, Ministry of Social Affairs (Finlande, 10/2021).
France - Occupational Exposure Limits	
VME (OEL TWA)	5 mg/m³
VLE (OEL C/STEL)	10 mg/m³
Greece - Occupational Exposure Limits	
OEL TWA	5 mg/m³ 8h; mist; Ministry of Labour and Social Affairs (Grèce, 9/2021).
Hungary - Occupational Exposure Limits	
AK (OEL TWA)	5 mg/m³ 8h; mist; 5/2020. (II. 6.) ITM Decree (Hongrie, 2/2020).
Ireland - Occupational Exposure Limits	
OEL TWA	5 ppm 8h; particulates; NAOSH (Irlande, 5/2021). Notes: Advisory Occupational Exposure Limit Values (OELVs)
Latvia - Occupational Exposure Limits	
OEL TWA	5 mg/m³ 8h; Ministers Cabinet Regulations Nr.325 - AER (Lettonie, 2/2021).
Lithuania - Occupational Exposure Limits	
IPRV (OEL TWA)	1 mg/m³ 8h; mist; Lithuanian Hygiene Standard HN 23 (Lituanie, 1/2021).
TPRV (OEL STEL)	3 mg/m³ 15min; mist; Lithuanian Hygiene Standard HN 23 (Lituanie, 1/2021).
Netherlands - Occupational Exposure Limits	
TGG-8u (OEL TWA)	5 mg/m³ 8h; mist; Ministry of Social Affairs and Employment, Legal limit values (Pays-Bas, 7/2021).
Poland - Occupational Exposure Limits	
NDS (OEL TWA)	5 mg/m³
Portugal - Occupational Exposure Limits	
OEL TWA	5 mg/m³
Romania - Occupational Exposure Limits	
OEL TWA	5 mg/m³ 8h; HG 1218/2006 with subsequent modifications and additions (Roumanie, 3/2021).
Slovakia - Occupational Exposure Limits	
NPHV (OEL TWA)	1 mg/m³ (mineral oils); 8h; liquid aerosol, fumes; Government regulation SR c. 355/2006 (Slovaquie, 9/2020).
NPHV (OEL STEL)	5 mg/m³ (mineral oils); 15min; liquid aerosol, fumes; Government regulation SR c. 355/2006 (Slovaquie, 9/2020).
Sweden - Occupational Exposure Limits	
NGV (OEL TWA)	1 mg/m³ 8h; mist and fumes; Work environment authority Regulation 2018:1 (Suède, 9/2021).
KGV (OEL STEL)	3 mg/m³ 15min; mist and fumes; Work environment authority Regulation 2018:1 (Suède, 9/2021).
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA)	5 mg/m³

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
WEL STEL (OEL STEL)	10 mg/m³
Iceland - Occupational Exposure Limits	
OEL TWA	1 mg/m³ 8h; particulates; Ministry of Welfare, List of Exposure Limits (Islande, 5/2021).
Switzerland - Occupational Exposure Limits	
MAK (OEL TWA)	5 mg/m³

2-ethylhexan-1-ol (104-76-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	2-ethylhexan-1-ol
IOEL TWA	5,4 mg/m³
	1 ppm
Regulatory reference	COMMISSION DIRECTIVE (EU) 2017/164
Austria - Occupational Exposure Limits	
MAK (OEL TWA)	5,4 mg/m³
	1 ppm
MAK (OEL STEL)	10,8 mg/m³
	2 ppm
Belgium - Occupational Exposure Limits	
OEL TWA	5,4 mg/m³
	1 ppm
Denmark - Occupational Exposure Limits	
OEL TWA	5,4 mg/m³
	1 ppm
OEL STEL	10,8 mg/m³
	2 ppm
Finland - Occupational Exposure Limits	
HTP (OEL TWA)	5,4 mg/m³
	1 ppm
France - Occupational Exposure Limits	
VME (OEL TWA)	5,4 mg/m³
	1 ppm
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA)	54 mg/m³
	10 ppm
Ireland - Occupational Exposure Limits	
OEL TWA	5,4 mg/m³
	1 ppm
Italy - Occupational Exposure Limits	
OEL TWA	5,4 mg/m³
	1 ppm

2-ethylhexan-1-ol (104-76-7)	
Latvia - Occupational Exposure Limits	
OEL TWA	5,4 mg/m³
	1 ppm
Poland - Occupational Exposure Limits	
NDS (OEL TWA)	5,4 mg/m³
NDSP (OEL C)	10,8 mg/m³
Romania - Occupational Exposure Limits	
OEL TWA	5,4 mg/m³
	1 ppm
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA)	5,4 mg/m³
	1 ppm
VLA-EC (OEL STEL)	110 mg/m³
	20 ppm
Sweden - Occupational Exposure Limits	
NGV (OEL TWA)	5,4 mg/m³
	1 ppm
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA)	5,4 mg/m³
Norway - Occupational Exposure Limits	
Grenseverdi (OEL TWA)	5,4 mg/m³
	1 ppm
Korttidsverdi (OEL STEL)	54 mg/m³
	10 ppm
Switzerland - Occupational Exposure Limits	
MAK (OEL TWA)	5,4 mg/m³
	1 ppm
KZGW (OEL STEL)	10,8 mg/m³
	2 ppm

mineral oil	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	5 mg/m³

butane (<0.1% (203-450-8)) (106-97-8)	
Austria - Occupational Exposure Limits	
MAK (OEL TWA)	1600 mg/m³
	800 ppm
MAK (OEL STEL)	3800 mg/m³
	1600 ppm

butane (<0.1% (203-450-8)) (106-97-8)	
Belgium - Occupational Exposure Limits	
OEL STEL	2370 mg/m³
	980 ppm
Denmark - Occupational Exposure Limits	
OEL TWA	1200 mg/m³
	500 ppm
OEL STEL	2400 mg/m³
	1000 ppm
Finland - Occupational Exposure Limits	
HTP (OEL TWA)	1900 mg/m³
	800 ppm
HTP (OEL STEL)	2400 mg/m³
	1000 ppm
France - Occupational Exposure Limits	
Local name	n-Butane
VME (OEL TWA)	1900 mg/m³
	800 ppm
Remark	Valeurs recommandées/admises
Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 984, 2016)
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA)	2400 mg/m³
	1000 ppm
Hungary - Occupational Exposure Limits	
AK (OEL TWA)	2350 mg/m³
CK (OEL STEL)	9400 mg/m³
Ireland - Occupational Exposure Limits	
OEL STEL	1000 ppm
Latvia - Occupational Exposure Limits	
OEL TWA	300 mg/m³
Poland - Occupational Exposure Limits	
NDS (OEL TWA)	1900 mg/m³
NDSCh (OEL STEL)	3000 mg/m³
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA)	1935 mg/m³
	800 ppm
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA)	1450 mg/m³
	600 ppm
WEL STEL (OEL STEL)	1810 mg/m³

butane (<0.1% (203-450-8)) (106-97-8)	
	750 ppm
Switzerland - Occupational Exposure Limits	
MAK (OEL TWA)	1900 mg/m³
	800 ppm
KZGW (OEL STEL)	7600 mg/m³
	3200 ppm
USA - ACGIH - Occupational Exposure Limits	
ACGIH® TLV® TWA	1900 mg/m³
	800 ppm

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

No additional information available

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

Hand protection:
Gloves. ISO 374-1

8.2.2.3. Respiratory protection

Respiratory protection:
Good ventilation of the workplace required. Where excessive vapour, mist, or dust may result, use approved respiratory protection equipment

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
Appearance	:	Aerosol.
Colour	:	Yellow.
Odour	:	characteristic.
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	No data available
Relative vapour density at 20°C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Viscosity, kinematic	:	< 20,5 mm²/s (40°C)
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions. Contains gas under pressure; may explode if heated.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

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

10.5. Incompatible materials

No additional information available

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 toxicological effects

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified

Acute toxicity (inhalation) : Not classified

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 Inhalation - Rat	4951 mg/m³ 4 hours

oleic acid, compound with (Z)-N-octadec-9-enylpropane-1,3-diamine (2:1) (34140-91-5)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg

Phosphoric acid, mono- and bis(branched and linear pentyl) esters (84418-71-3)	
LD50 oral rat	> 2000 mg/kg

Amines, C10-14-tert-alkyl	
LD50 oral rat	612 mg/kg
LD50 dermal rat	251 mg/kg
LC50 Inhalation - Rat (Vapours)	1,19 mg/l/4h

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
LD50 oral rat	> 5000 mg/kg bodyweight (OECD 401)
LD50 dermal rabbit	> 5000 mg/kg bodyweight (OECD 402)
LC50 Inhalation - Rat (Vapours)	> 5,53 mg/l/4h (OECD 403)

Methyl-1H-benzotriazole (29385-43-1)	
LD50 oral rat	720 mg/kg
LD50 dermal rat	> 2000 mg/kg

2-ethylhexan-1-ol (104-76-7)	
LD50 oral rat	2500 mg/kg
LD50 dermal rabbit	2500 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	1,5 mg/l/4h
LC50 Inhalation - Rat (Vapours)	11 mg/l/4h

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)	
LD50 oral rat	3100 mg/kg bodyweight
LD50 dermal rabbit	> 5000 mg/kg bodyweight

mineral oil	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	> 5 mg/l/4h

Polyol polyester	
LD50 oral rat	> 2100 mg/kg OECD 401

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified
STOT-single exposure : Not classified

C16-18-(even numbered, saturated and unsaturated)-alkylamines (1213789-63-9)	
STOT-single exposure	May cause respiratory irritation.

2-ethylhexan-1-ol (104-76-7)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

oleic acid, compound with (Z)-N-octadec-9-enylpropane-1,3-diamine (2:1) (34140-91-5)	
NOAEL (subchronic, oral, animal/male, 90 days)	1 mg/kg bodyweight
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Phosphoric acid, mono- and bis(branched and linear pentyl) esters (84418-71-3)	
NOAEL (subacute, oral, animal/male, 28 days)	300 mg/kg bodyweight

C16-18-(even numbered, saturated and unsaturated)-alkylamines (1213789-63-9)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

triphenyl phosphite (101-02-0)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : May be fatal if swallowed and enters airways.

POWER SPRAY BARDAHL	
Vaporizer	Aerosol
Viscosity, kinematic	< 20,5 mm²/s (40°C)

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	
Viscosity, kinematic	1,3 mm²/s

TRIMETHYLOL PROPANE ESTER	
Viscosity, kinematic	47 mm²/s (40°C)

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short–term (acute) : Not classified
Hazardous to the aquatic environment, long–term (chronic) : Toxic to aquatic life with long lasting effects.

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	
LC50 - Fish [1]	> 1000 mg/l
EC50 - Crustacea [1]	> 1000 mg/l Daphnia Magna
EC50 72h - Algae [1]	> 1000 mg/l Pseudokirchnerella subcapitata
NOEC chronic algae	1000 mg/l Pseudokirchnerella subcapitata

oleic acid, compound with (Z)-N-octadec-9-enylpropane-1,3-diamine (2:1) (34140-91-5)	
LC50 - Fish [1]	1,34 mg/l LC50 96 h - fish [mg/l]
EC50 - Crustacea [1]	1,4 mg/l

oleic acid, compound with (Z)-N-octadec-9-enylpropane-1,3-diamine (2:1) (34140-91-5)	
NOEC (acute)	993,2 mg/kg

Phosphoric acid, mono- and bis(branched and linear pentyl) esters (84418-71-3)	
LC50 - Fish [1]	> 100 mg/l
EC50 - Crustacea [1]	56 mg/l
EC50 72h - Algae [1]	> 100 mg/l

Amines, C10-14-tert-alkyl	
LC50 - Fish [1]	1,3 mg/l
EC50 - Crustacea [1]	2,5 mg/l
ErC50 algae	0,44 mg/l
NOEC chronic fish	0,078 mg/l

C16-18-(even numbered, saturated and unsaturated)-alkylamines (1213789-63-9)	
LC50 - Fish [1]	0,06 mg/l
EC50 - Crustacea [1]	0,011 mg/l

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
LC50 - Fish [1]	> 100 mg/l (Pimephales promelas)
EC50 - Crustacea [1]	> 10000 mg/l (Daphnia magna)
NOEC chronic fish	1000 mg/l (Oncorhynchus mykiss) - 14 days
NOEC chronic crustacea	10 mg/l (Daphnia magna) - 21 days
NOEC chronic algae	> 100 mg/l (Pseudokirchneriella subcapitata) - 72 days

Methyl-1H-benzotriazole (29385-43-1)	
LC50 - Fish [1]	55 mg/l
EC50 - Crustacea [1]	55 mg/l
EC50 72h - Algae [1]	52 mg/l

2-ethylhexan-1-ol (104-76-7)	
LC50 - Fish [1]	28,2 mg/l (Pimephales promelas, 4DY)
LC50 - Fish [2]	17,1 mg/l (Ide mélanote (Leuciscus idus), 4DY)
EC50 - Crustacea [1]	1,82 mg/l (48h)
EC50 - Crustacea [2]	2,72 mg/l (24h)
EC50 - Other aquatic organisms [1]	39 mg/l (Cladocère, 2DY)
EC50 72h - Algae [1]	16,6 mg/l Scenedesmus subspicatus
EC50 72h - Algae [2]	11,5 mg/l Desmodesmus subspicatus
EC50 96h - Algae [1]	1,3 mg/l Skeletonema costatum
NOEC chronic fish	14 mg/l (Ide mélanote (Leuciscus idus), 4DY)

triphenyl phosphite (101-02-0)	
EC50 - Crustacea [1]	0,94 mg/l (Daphnia magna)

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)	
LC50 - Fish [1]	4,4 mg/l Oncorhynchus mykiss

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)	
EC50 - Crustacea [1]	75 mg/l Daphnia magna ; 2 days
EC50 72h - Algae [1]	410 mg/l Scenedesmus quadricauda ; 3 days
NOEC chronic crustacea	0,4 mg/l (Daphnia magna), 21 d
NOEC chronic algae	220 mg/l Scenedesmus quadricauda; 3 days

mineral oil	
LC50 - Fish [1]	> 100 mg/l (Pimephales promelas)
EC50 - Crustacea [1]	> 10000 mg/l (Daphnia magma)
EC50 72h - Algae [1]	> 100 mg/l (Scenedesmus quadricauda)
NOEC chronic crustacea	> 10 mg/l (Daphnia magma) ; 21 days

Polyol polyester	
LC50 - Fish [1]	> 10000 mg/l (OECD 203; Brachydanio rerio)
EC50 - Crustacea [1]	> 10000 mg/l (OECD 202)
EC50 - Crustacea [2]	> 10000 mg/l (OECD 202)
EC50 - Other aquatic organisms [1]	> 10000 mg/l (OECD 201)

12.2. Persistence and degradability

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	
Biodegradation	80 % 28 days

oleic acid, compound with (Z)-N-octadec-9-enylpropane-1,3-diamine (2:1) (34140-91-5)	
Persistence and degradability	Readily biodegradable.
Biodegradation	61 % 28 days

Phosphoric acid, mono- and bis(branched and linear pentyl) esters (84418-71-3)	
Persistence and degradability	(OECD 301B method).
Biodegradation	45 %

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
Persistence and degradability	Not readily biodegradable.
Biodegradation	31 % (28 d OECD 301F)

2-ethylhexan-1-ol (104-76-7)	
Persistence and degradability	Readily biodegradable.
Biodegradation	95 % (OECD TG 302 B), 100% (OECD TG 301 C)

triphenyl phosphite (101-02-0)	
Biodegradation	0,14 % OECD TG 301 D

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)	
Persistence and degradability	Not readily biodegradable. (OECD 301D method). <5 % biodegradation 28 days.

mineral oil	
Persistence and degradability	Not readily biodegradable. (OECD 301B method). 31 % biodegradation 28 days.

Polyol polyester	
Biodegradation	78 % (28 days, OECD 301C)

12.3. Bioaccumulative potential

oleic acid, compound with (Z)-N-octadec-9-enylpropane-1,3-diamine (2:1) (34140-91-5)	
Bioconcentration factor (BCF REACH)	70,8
Partition coefficient n-octanol/water (Log Kow)	32,91

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
Bioconcentration factor (BCF REACH)	260
Partition coefficient n-octanol/water (Log Pow)	9,2

2-ethylhexan-1-ol (104-76-7)	
Bioconcentration factor (BCF REACH)	25,35
Partition coefficient n-octanol/water (Log Kow)	2,9

triphenyl phosphite (101-02-0)	
Partition coefficient n-octanol/water (Log Kow)	6,62 (25°C)

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)	
Partition coefficient n-octanol/water (Log Kow)	3,6

Polyol polyester	
Partition coefficient n-octanol/water (Log Pow)	> 5

12.4. Mobility in soil

2-ethylhexan-1-ol (104-76-7)	
Mobility in soil	-1,42

12.5. Results of PBT and vPvB assessment

Component	
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	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
Methyl-1H-benzotriazole (29385-43-1)	PBT: not yet assessed vPvB: not yet assessed
triphenyl phosphite (101-02-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII vPvB: not yet assessed
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)	PBT: not yet assessed vPvB: not yet assessed

12.6. 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. Dispose used or damaged aerosol cans at permitted disposal sites.
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)	:	16 05 04* - gases in pressure containers (including halons) containing dangerous substances

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number			
UN 1950	UN 1950	UN 1950	UN 1950
14.2. UN proper shipping name			
AEROSOLS	AEROSOLS	Aerosols, flammable	AEROSOLS
Transport document description			
UN 1950 AEROSOLS (oleic acid, compound with (Z)-N-octadec-9-enylpropane-1,3-diamine (2:1) ; C16-18-(even numbered, saturated and unsaturated)-alkylamines), 2.1, (D), ENVIRONMENTALLY HAZARDOUS	UN 1950 AEROSOLS (oleic acid, compound with (Z)-N-octadec-9-enylpropane-1,3-diamine (2:1) ; C16-18-(even numbered, saturated and unsaturated)-alkylamines), 2.1, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 1950 Aerosols, flammable, 2.1, ENVIRONMENTALLY HAZARDOUS	UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)			
2.1	2.1	2.1	2.1
			
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available			

14.6. Special precautions for user

Overland transport

Classification code (ADR)	:	5F
Special provisions (ADR)	:	190, 327, 344, 625
Limited quantities (ADR)	:	1l
Excepted quantities (ADR)	:	E0
Packing instructions (ADR)	:	P207
Special packing provisions (ADR)	:	PP87, RR6, L2
Mixed packing provisions (ADR)	:	MP9
Transport category (ADR)	:	2
Special provisions for carriage - Packages (ADR)	:	V14
Special provisions for carriage - Loading, unloading and handling (ADR)	:	CV9, CV12

Special provisions for carriage - Operation (ADR)	:	S2
Tunnel restriction code (ADR)	:	D

Transport by sea

Special provisions (IMDG)	:	63, 190, 277, 327, 344, 381, 959
Packing instructions (IMDG)	:	P207, LP200
Special packing provisions (IMDG)	:	PP87, L2
EmS-No. (Fire)	:	F-D
EmS-No. (Spillage)	:	S-U
Stowage category (IMDG)	:	None
Stowage and handling (IMDG)	:	SW1, SW22
Segregation (IMDG)	:	SG69

Air transport

PCA Excepted quantities (IATA)	:	E0
PCA Limited quantities (IATA)	:	Y203
PCA limited quantity max net quantity (IATA)	:	30kgG
PCA packing instructions (IATA)	:	203
PCA max net quantity (IATA)	:	75kg
CAO packing instructions (IATA)	:	203
CAO max net quantity (IATA)	:	150kg
Special provisions (IATA)	:	A145, A167, A802
ERG code (IATA)	:	10L

Rail transport

Classification code (RID)	:	5F
Special provisions (RID)	:	190, 327, 344, 625
Limited quantities (RID)	:	1L
Excepted quantities (RID)	:	E0
Packing instructions (RID)	:	P207, LP200
Special packing provisions (RID)	:	PP87, RR6, L2
Mixed packing provisions (RID)	:	MP9
Transport category (RID)	:	2
Special provisions for carriage – Packages (RID)	:	W14
Special provisions for carriage - Loading, unloading and handling (RID)	:	CW9, CW12
Colis express (express parcels) (RID)	:	CE2
Hazard identification number (RID)	:	23

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

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

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)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Seveso Directive (Disaster Risk Reduction)

Seveso III Part I (Categories of dangerous substances)	Qualifying quantity (tonnes)	
	Lower-tier	Upper-tier
P3a FLAMMABLE AEROSOLS 'Flammable' aerosols Category 1 or 2, containing flammable gases Category 1 or 2 or flammable liquids Category 1	150	500
E2 Hazardous to the Aquatic Environment in Category Chronic 2	200	500

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

France

Occupational diseases	
Code	Description
RG 36	Diseases caused by oils and fats of mineral or synthetic origin
RG 49	Skin disorders caused by aliphatic, alicyclic amines or ethanolamines
RG 65	Eczematiform lesions of allergic mechanism
RG 84	Conditions caused by liquid organic solvents for professional use: saturated or unsaturated aliphatic or cyclic liquid hydrocarbons and mixtures thereof; liquid halogenated hydrocarbons; nitrated derivatives of aliphatic hydrocarbons; alcohols; glycols, glycol ethers; ketones; aldehydes; aliphatic and cyclic ethers, including tetrahydrofuran; esters; dimethylformamide and dimethylacetamine; acetonitrile and propionitrile; pyridine; dimethylsulfone and dimethylsulfoxide

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 3, Highly 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-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : None of the components are listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling : 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
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

Switzerland

Storage class (LK) : LK 2 - Liquefied or pressurized gases

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:	
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aerosol 1	Aerosol, Category 1
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Gas 1A	Flammable gases, Category 1A
Press. Gas	Gases under pressure
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1A	Skin sensitisation, category 1A
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH208	Contains Amines, C10-14-tert-alkyl. May produce an allergic reaction.

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.