Hydraulic Valve Lifter Concentrate

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 13/06/2023 Revision date: 17/06/2021 Version: 6.02

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

1.1. Product identifier

Product form	:	Mixture
Product name	:	Hydraulic Valve Lifter Concentrate
Product code	:	W76841
Product group	:	Trade product

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

1.2.1. Relevant identified uses

Use of the substance/mixture	:	Oil additive

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ITW ADDITIVES INTL B.V.
Industriepark-West 46
9100 Sint-Niklaas
Belgium
T +32 3 766 60 20 - F +32 3 778 16 56
msds@wynns.eu - www.wynns.com

1.4. Emergency telephone number

Emergency number	:	BIG: +32(0)14 58 45 45 (NL FR EN DE)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Serious eye damage/eye irritation, Category 2 H319
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

Signal word (CLP)	:	Warning
Hazard statements (CLP)	:	H319 - Causes serious eye irritation.
Precautionary statements (CLP)	:	P102 - Keep out of reach of children. P280 - Wear eye protection. 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.

2.3. Other hazards

Contains no PBT/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 is 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]
4-methylpentan-2-ol	CAS-No.: 108-11-2 EC-No.: 203-551-7 EC Index-No.: 603-008-00-8 REACH-no: 01-2119473979-13	1 – 2,5	Flam. Liq. 3, H226 Eye Irrit. 2, H319 STOT SE 3, H335
2-(2-butoxyethoxy)ethanol substance with a Community workplace exposure limit	CAS-No.: 112-34-5 EC-No.: 203-961-6 EC Index-No.: 603-096-00-8 REACH-no: 01-2119475104-44	1 – 2,5	Eye Irrit. 2, H319
Cyclohexanone substance with a Community workplace exposure limit	CAS-No.: 108-94-1 EC-No.: 203-631-1 EC Index-No.: 606-010-00-7 REACH-no: 01-2119453616-35	≤ 1	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Dam. 1, H318
N-phenylbenzenamine, reaction products with 2,4,4-trimethylpentene	CAS-No.: 68411-46-1 EC-No.: 270-128-1 REACH-no: 01-2119491299-23	0,1 – 1	Repr. 2, H361f
C16-18-(even numbered, saturated and unsatd.)-alkylamines (Oleylamine)	CAS-No.: 1213789-63-9 EC-No.: 627-034-4 REACH-no: 01-2119473797-19	0,01 – 0,02	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)

Specific concentration limits:

Name	Product identifier	Specific concentration limits
4-methylpentan-2-ol	CAS-No.: 108-11-2 EC-No.: 203-551-7 EC Index-No.: 603-008-00-8 REACH-no: 01-2119473979-13	(25 ≤C < 100) STOT SE 3, H335

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 : Check the vital functions. Keep victim at rest in half upright position. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Keep watching the victim. Give psychological aid. Prevent cooling by covering the victim (no warming up). Keep the victim calm, avoid physical strain. If necessary seek medical advice.

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation occurs: Get medical advice/attention.

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. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : If swallowed, rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor if you feel unwell.

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

No additional information available

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 : Water spray. AFFF foam. ABC-powder.

Unsuitable extinguishing media : None to our knowledge. If there is a fire close by, use suitable extinguishing agents. Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustible liquid.

Explosion hazard : Product is not explosive.

5.3. Advice for firefighters

Firefighting instructions : Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Spill area may be slippery.

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable gloves and eye/face protection. protective clothing.

Emergency procedures : Mark the danger area. Take off contaminated clothing. Prevent flow to low areas.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage. Contain leaking substance, pump over in suitable containers.
Methods for cleaning up : Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Clean preferably with a detergent - Avoid the use of solvents.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Meet the legal requirements. Presents no particular risk when handled in accordance with good occupational hygiene practice.
Hygiene measures : Use good personal hygiene practices. IF ON SKIN: Gently wash with plenty of soap and water. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Does not require any specific or particular technical measures.
Storage conditions : Store in a dry place. Meet the legal requirements.
Storage area : Meet the legal requirements. Protect from heat and direct sunlight.
Special rules on packaging : Store in a closed container.

7.3. Specific end use(s)

See product bulletin for detailed information.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

4-methylpentan-2-ol (108-11-2)	
Belgium - Occupational Exposure Limits	
OEL TWA	106 mg/m³
OEL TWA [ppm]	25 ppm
OEL STEL	169 mg/m³
OEL STEL [ppm]	40 ppm
Remark	D
France - Occupational Exposure Limits	
VME (OEL TWA)	100 mg/m³
VME (OEL TWA) [ppm]	25 ppm
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	85 mg/m³
AGW (OEL TWA) [2]	20 ppm
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	106 mg/m³
WEL TWA (OEL TWA) [2]	25 ppm
WEL STEL (OEL STEL)	170 mg/m³

4-methylpentan-2-ol (108-11-2)	
WEL STEL (OEL STEL) [ppm]	40 ppm
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	25 ppm
ACGIH OEL STEL [ppm]	40 ppm

2-(2-butoxyethoxy)ethanol (112-34-5)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	67,5 mg/m³
IOEL TWA [ppm]	10 ppm
IOEL STEL	101,2 mg/m³
IOEL STEL [ppm]	15 ppm
Belgium - Occupational Exposure Limits	
OEL TWA	67,5 mg/m³
OEL TWA [ppm]	10 ppm
OEL STEL	101,2 mg/m³
OEL STEL [ppm]	15 ppm
France - Occupational Exposure Limits	
VME (OEL TWA)	101,2 mg/m³
VME (OEL TWA) [ppm]	15 ppm
VLE (OEL C/STEL)	67,5 mg/m³
VLE (OEL C/STEL) [ppm]	10 ppm
Hungary - Occupational Exposure Limits	
AK (OEL TWA)	67,5 mg/m³
CK (OEL STEL)	101,2 mg/m³

Cyclohexanone (108-94-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	40,8 mg/m³
IOEL TWA [ppm]	10 ppm
IOEL STEL	81,6 mg/m³
IOEL STEL [ppm]	20 ppm
Belgium - Occupational Exposure Limits	
OEL TWA	40,8 mg/m³
OEL TWA [ppm]	10 ppm
OEL STEL	81,6 mg/m³
OEL STEL [ppm]	20 ppm
Remark	D

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

4-methylpentan-2-ol (108-11-2)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	208 mg/m³
Acute - local effects, inhalation	104 mg/m³
Long-term - systemic effects, dermal	11,8 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	83 mg/m³
Long-term - local effects, inhalation	83 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	155,2 mg/m³
Acute - local effects, inhalation	52,1 mg/m³
Long-term - systemic effects,oral	4,2 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	14,7 mg/m³
Long-term - systemic effects, dermal	4,2 mg/kg bodyweight/day
Long-term - local effects, inhalation	14,7 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0,6 mg/l
PNEC aqua (marine water)	0,06 mg/l
PNEC aqua (intermittent, freshwater)	3,3 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	2,94 mg/kg dwt
PNEC sediment (marine water)	0,3 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,24 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	1 mg/l

2-(2-butoxyethoxy)ethanol (112-34-5)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	101,2 mg/m³
Long-term - systemic effects, dermal	83 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	67,5 mg/m³
Long-term - local effects, inhalation	67,5 mg/m³
DNEL/DMEL (General population)	
Acute - local effects, inhalation	60,7 mg/m³
Long-term - systemic effects,oral	5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	40,5 mg/m³
Long-term - systemic effects, dermal	50 mg/kg bodyweight/day
Long-term - local effects, inhalation	40,5 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	1,1 mg/l

2-(2-butoxyethoxy)ethanol (112-34-5)	
PNEC aqua (marine water)	0,11 mg/l
PNEC aqua (intermittent, freshwater)	11 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	4,4 mg/kg dwt
PNEC sediment (marine water)	0,44 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,32 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	56 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	200 mg/l

Cyclohexanone (108-94-1)	
DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	100 mg/kg bodyweight/day
Acute - local effects, inhalation	100 mg/m³
Long-term - systemic effects, dermal	10 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	100 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, dermal	30 mg/kg bodyweight
Acute - systemic effects, inhalation	50 mg/m³
Acute - systemic effects, oral	10 mg/kg bodyweight
Acute - local effects, inhalation	50 mg/m³
Long-term - systemic effects,oral	5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	20 mg/m³
Long-term - systemic effects, dermal	20 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0,033 mg/l
PNEC aqua (marine water)	0,003 mg/l
PNEC aqua (intermittent, freshwater)	0,329 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0,095 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,014 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l

4-hydroxy-4-methylpentan-2-one (123-42-2)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	240 mg/m³

4-hydroxy-4-methylpentan-2-one (123-42-2)	
Long-term - systemic effects, dermal	9,4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	66,4 mg/m³
Long-term - local effects, inhalation	66,4 mg/m³
DNEL/DMEL (General population)	
Acute - local effects, inhalation	120 mg/m³
Long-term - systemic effects,oral	3,4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	11,8 mg/m³
Long-term - systemic effects, dermal	3,4 mg/kg bodyweight/day
Long-term - local effects, inhalation	11,8 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	2 mg/l
PNEC aqua (marine water)	0,2 mg/l
PNEC aqua (intermittent, freshwater)	1 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	9,06 mg/kg dwt
PNEC sediment (marine water)	0,91 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,63 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l

N-phenylbenzenamine, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	0,08 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0,6 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	0,04 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0,14 mg/m³
Long-term - systemic effects, dermal	0,04 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0,034 mg/l
PNEC aqua (marine water)	0,003 mg/l
PNEC aqua (intermittent, freshwater)	0,51 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0,446 mg/kg dwt
PNEC sediment (marine water)	0,045 mg/kg dwt
PNEC (Soil)	
PNEC soil	2,59 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Does not require any specific or particular technical measures.

8.2.2. Personal protection equipment

Personal protective equipment:
Gloves. Safety glasses.

Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection

Eye protection:
Protective goggles

8.2.2.2. Skin protection

Hand protection:
Neoprene. Nitrile rubber. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Time of penetration is to be checked with the glove producer

8.2.2.3. Respiratory protection

Respiratory protection:
No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Other information:
Breakthrough time : >30'. Thickness of the glove material >0,1 mm.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	brown.
Appearance	:	Viscous.
Odour	:	Oily.
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	:	63 °C (ASTM D93)
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	Not available
Viscosity, kinematic	:	20 mm²/s @ 40°C (ASTM D445)
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	:	0,9 g/cm³ @ 20°C (ASTM D4052)
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

Other properties	:	Dimethylsulfoxide (DMSO) <3%
Additional information	:	The physical and chemical data in this section are typical values for this product and are not intended as product specifications.

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Combustible liquid. Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from strong acids and strong oxidizers.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. On burning: release of harmful/irritant gases/vapours. Carbon monoxide. Carbon dioxide.

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)	:	Not classified

4-methylpentan-2-ol (108-11-2)	
LD50 oral rat	2590 mg/kg bodyweight
LD50 dermal rabbit	2870 mg/kg bodyweight
LC50 Inhalation - Rat	> 16 mg/l/4h Wistar

2-(2-butoxyethoxy)ethanol (112-34-5)	
LD50 oral rat	7291 mg/kg bodyweight COBS, CD, BR
LD50 dermal rabbit	2764 mg/kg bodyweight New Zealand White

2-(2-butoxyethoxy)ethanol (112-34-5)	
LC50 Inhalation - Rat [ppm]	> 29 ppm @2h

Cyclohexanone (108-94-1)	
LD50 oral rat	1890 mg/kg bodyweight
LD50 dermal rabbit	1100 mg/kg bodyweight
LC50 Inhalation - Rat	11 mg/l/4h

N-phenylbenzenamine, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
LD50 oral rat	> 5000 mg/kg bodyweight albino
LD50 dermal rat	> 2000 mg/kg bodyweight albino

C16-18-(even numbered, saturated and unsatd.)-alkylamines (Oleylamine) (1213789-63-9)	
LD50 oral rat	1689 mg/kg bodyweight Sprague-Dawley

Skin corrosion/irritation : Not classified
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

4-methylpentan-2-ol (108-11-2)	
STOT-single exposure	May cause respiratory irritation.

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

STOT-repeated exposure : Not classified

C16-18-(even numbered, saturated and unsatd.)-alkylamines (Oleylamine) (1213789-63-9)	
STOT-repeated exposure	May cause damage to organs (digestive tract, liver, immune system) through prolonged or repeated exposure (oral).

Aspiration hazard : Not classified

Hydraulic Valve Lifter Concentrate	
Viscosity, kinematic	20 mm²/s @ 40°C (ASTM D445)

2-(2-butoxyethoxy)ethanol (112-34-5)	
Viscosity, kinematic	< 6,1 mm²/s

N-phenylbenzenamine, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
Viscosity, kinematic	352,7 mm²/s Temp.: '40°C' Parameter: 'kinematic viscosity (in mm²/s)'

C16-18-(even numbered, saturated and unsatd.)-alkylamines (Oleylamine) (1213789-63-9)	
Viscosity, kinematic	6,064 mm²/s

11.2. Information on other hazards

No additional information available

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

4-methylpentan-2-ol (108-11-2)	
LC50 - Fish [1]	> 92,4 mg/l @96h Pimephales promelas
EC50 - Crustacea [1]	48h 337 mg/l Daphnia magna
EC50 - Other aquatic organisms [1]	96h 334 mg/l Pseudokirchneriella subcapitata
NOEC (acute)	48h 288 mg/l Daphnia magna

2-(2-butoxyethoxy)ethanol (112-34-5)	
LC50 - Fish [1]	96h 1300 mg/l Lepomis macrochirus
EC50 - Crustacea [1]	24h 2850 mg/l Daphnia magna
EC50 - Other aquatic organisms [1]	72h 1101 mg/l Pseudokirchnerella subcapitata

Cyclohexanone (108-94-1)	
LC50 - Fish [1]	96h 527 (≤ 732) mg/l Pimephales promelas
EC50 - Crustacea [1]	24h 800 mg/l Daphnia magna
EC50 - Other aquatic organisms [1]	72h 32,9 mg/l Chlamydomonas reinhardtii

N-phenylbenzenamine, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
LC50 - Fish [1]	> 100 mg/l @96h Brachydanio rerio
EC50 - Crustacea [1]	51 mg/l @48h Daphnia magna
EC50 - Other aquatic organisms [1]	> 100 mg/l @72h Desmodesmus subspicatus
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

C16-18-(even numbered, saturated and unsatd.)-alkylamines (Oleylamine) (1213789-63-9)	
LC50 - Fish [1]	96h 0,06 mg/l Pimephales promelas
EC50 - Crustacea [1]	48h 0,98 mg/l Daphnia magna
EC50 - Other aquatic organisms [1]	72h 0,46 mg/l Desmodesmus subspicatus

12.2. Persistence and degradability

4-methylpentan-2-ol (108-11-2)	
Persistence and degradability	Readily biodegradable in water. easily degradable in the soil.

Cyclohexanone (108-94-1)	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

2-(2-butoxyethoxy)ethanol (112-34-5)	
Partition coefficient n-octanol/water (Log Pow)	1

Cyclohexanone (108-94-1)	
Bioaccumulative potential	Bioaccumulation unlikely.

12.4. Mobility in soil

No additional information available

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

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Remove to an authorized waste treatment plant. Avoid release to the environment.

European List of Waste (LoW) code : 12 01 12* - spent waxes and fats
15 01 10* - packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	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

Inland waterway 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)

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 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (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 (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

Water hazard class (WGK)	:	WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).
Hazardous Incident Ordinance (12. BImSchV)	:	Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen	:	N-phenylbenzenamine, reaction products with 2,4,4-trimethylpentene is listed
SZW-lijst van mutagene stoffen	:	N-phenylbenzenamine, reaction products with 2,4,4-trimethylpentene is 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

Class for fire hazard	:	Class III-1
Store unit	:	50 liter
Classification remarks	:	Flammable according to the Danish Ministry of Justice; Emergency management guidelines for the storage of flammable liquids must be followed
Danish National Regulations	:	Pregnant/breastfeeding women working with the product must not be in direct contact with 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 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
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
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361f	Suspected of damaging fertility.
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.
Repr. 2	Reproductive toxicity, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
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

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.