



# Hydraulic Valve Lifter Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
Issue date: 23/09/2024 Revision date: 12/01/2023 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 : W76844

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

##### Relevant identified uses

Use of the substance/mixture : Oil additive

##### Uses advised against

Restrictions on use : Seek expert judgment if the intended use is different from the recommended use

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

##### Supplier

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](mailto:msds@wynns.eu), [www.wynns.com](http://www.wynns.com)

##### Distributor

ITW Automotive Aftermarket  
Saxon House,  
2-4 Victoria Street  
SL4 1EN Windsor  
UNITED KINGDOM  
T +44 (0)24 7647 2634  
[sales@wynns.uk.com](mailto:sales@wynns.uk.com), [www.wynns.uk.com](http://www.wynns.uk.com)

##### Distributor

Wynn's Automotive France S.A.S.  
2 Av. Léonard de Vinci  
Z.A. Europarc  
33600 PESSAC Cedex  
FRANCE  
T +33 5 57 26 29 00  
[contact@wynns.fr](mailto:contact@wynns.fr), [www.wynns.fr](http://www.wynns.fr)

##### Distributor

Krafft S.L.U.  
Carretera de Urnieta, s/n  
20140 Andoain - Guipúzcoa  
ESPAÑA  
T +34 943 410 400, F +34 943 410 440  
[msds@krafft.es](mailto:msds@krafft.es), [www.krafft.es](http://www.krafft.es)

#### 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.

# Hydraulic Valve Lifter Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 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 and/or vPvB substances  $\geq 0.1\%$  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

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-Pentanol, 4-methyl-	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	$\leq 1$	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 (ATE=1890 mg/kg bodyweight) Acute Tox. 4 (Dermal), H312 (ATE=1100 mg/kg bodyweight) Acute Tox. 4 (Inhalation), H332 (ATE=1,5 mg/l/4h) Skin Irrit. 2, H315 Eye Dam. 1, H318
Benzenamine, N-phenyl-, 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 Aquatic Chronic 3, H412
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 (ATE=1689 mg/kg bodyweight) 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)

# Hydraulic Valve Lifter Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
2-Pentanol, 4-methyl-	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. 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.
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# Hydraulic Valve Lifter Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 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.

### 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

#### National occupational exposure and biological limit values

2-Pentanol, 4-methyl- (108-11-2)	
Belgium - Occupational Exposure Limits	
OEL TWA	106 mg/m <sup>3</sup>
	25 ppm
OEL STEL	169 mg/m <sup>3</sup>
	40 ppm
Remark	D
France - Occupational Exposure Limits	
VME (OEL TWA)	100 mg/m <sup>3</sup>
	25 ppm

# Hydraulic Valve Lifter Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

<b>2-Pentanol, 4-methyl- (108-11-2)</b>	
<b>Germany - Occupational Exposure Limits (TRGS 900)</b>	
AGW (OEL TWA)	85 mg/m <sup>3</sup>
	20 ppm
<b>United Kingdom - Occupational Exposure Limits</b>	
WEL TWA (OEL TWA)	106 mg/m <sup>3</sup>
	25 ppm
WEL STEL (OEL STEL)	170 mg/m <sup>3</sup>
	40 ppm
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	25 ppm
ACGIH OEL STEL	40 ppm
<b>2-(2-butoxyethoxy)ethanol (112-34-5)</b>	
<b>EU - Indicative Occupational Exposure Limit (IOEL)</b>	
Local name	2-(2-Butoxyethoxy)ethanol
IOEL TWA	67,5 mg/m <sup>3</sup>
	10 ppm
IOEL STEL	101,2 mg/m <sup>3</sup>
	15 ppm
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
<b>Belgium - Occupational Exposure Limits</b>	
Local name	2-(2-Butoxyéthoxy)éthanol # 2-(2-Butoxyethoxy)ethanol
OEL TWA	67,5 mg/m <sup>3</sup>
	10 ppm
OEL STEL	101,2 mg/m <sup>3</sup>
	15 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
<b>France - Occupational Exposure Limits</b>	
VME (OEL TWA)	101,2 mg/m <sup>3</sup>
	15 ppm
VLE (OEL C/STEL)	67,5 mg/m <sup>3</sup>
	10 ppm
<b>Hungary - Occupational Exposure Limits</b>	
AK (OEL TWA)	67,5 mg/m <sup>3</sup>
CK (OEL STEL)	101,2 mg/m <sup>3</sup>
<b>Cyclohexanone (108-94-1)</b>	
<b>EU - Indicative Occupational Exposure Limit (IOEL)</b>	
IOEL TWA	40,8 mg/m <sup>3</sup>
	10 ppm

# Hydraulic Valve Lifter Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Cyclohexanone (108-94-1)	
IOEL STEL	81,6 mg/m <sup>3</sup>
	20 ppm
Belgium - Occupational Exposure Limits	
OEL TWA	40,8 mg/m <sup>3</sup>
	10 ppm
OEL STEL	81,6 mg/m <sup>3</sup>
	20 ppm
Remark	D

### DNEL and PNEC

2-Pentanol, 4-methyl- (108-11-2)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	208 mg/m <sup>3</sup>
Acute - local effects, inhalation	104 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	11,8 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	83 mg/m <sup>3</sup>
Long-term - local effects, inhalation	83 mg/m <sup>3</sup>
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	155,2 mg/m <sup>3</sup>
Acute - local effects, inhalation	52,1 mg/m <sup>3</sup>
Long-term - systemic effects, oral	4,2 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	14,7 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	4,2 mg/kg bodyweight/day
Long-term - local effects, inhalation	14,7 mg/m <sup>3</sup>
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/m <sup>3</sup>
Long-term - systemic effects, dermal	83 mg/kg bodyweight/day

# Hydraulic Valve Lifter Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

2-(2-butoxyethoxy)ethanol (112-34-5)	
Long-term - systemic effects, inhalation	67,5 mg/m <sup>3</sup>
Long-term - local effects, inhalation	67,5 mg/m <sup>3</sup>
DNEL/DMEL (General population)	
Acute - local effects, inhalation	60,7 mg/m <sup>3</sup>
Long-term - systemic effects, oral	5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	40,5 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	50 mg/kg bodyweight/day
Long-term - local effects, inhalation	40,5 mg/m <sup>3</sup>
PNEC (Water)	
PNEC aqua (freshwater)	1,1 mg/l
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/m <sup>3</sup>
Long-term - systemic effects, dermal	10 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	100 mg/m <sup>3</sup>
DNEL/DMEL (General population)	
Acute - systemic effects, dermal	30 mg/kg bodyweight
Acute - systemic effects, inhalation	50 mg/m <sup>3</sup>
Acute - systemic effects, oral	10 mg/kg bodyweight
Acute - local effects, inhalation	50 mg/m <sup>3</sup>
Long-term - systemic effects, oral	5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	20 mg/m <sup>3</sup>
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

# Hydraulic Valve Lifter Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

<b>Cyclohexanone (108-94-1)</b>	
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0,095 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0,014 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	10 mg/l
<b>2-Pentanone, 4-hydroxy-4-methyl- (123-42-2)</b>	
<b>DNEL/DMEL (Workers)</b>	
Acute - local effects, inhalation	240 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	9,4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	66,4 mg/m <sup>3</sup>
Long-term - local effects, inhalation	66,4 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Acute - local effects, inhalation	120 mg/m <sup>3</sup>
Long-term - systemic effects, oral	3,4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	11,8 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	3,4 mg/kg bodyweight/day
Long-term - local effects, inhalation	11,8 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	2 mg/l
PNEC aqua (marine water)	0,2 mg/l
PNEC aqua (intermittent, freshwater)	1 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	9,06 mg/kg dwt
PNEC sediment (marine water)	0,91 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0,63 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	10 mg/l
<b>Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	0,08 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0,6 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	0,04 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0,14 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	0,04 mg/kg bodyweight/day



# Hydraulic Valve Lifter Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)

#### 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
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#### PNEC (STP)

PNEC sewage treatment plant	10 mg/l
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### 8.2. Exposure controls

#### 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.

#### Personal protection equipment

##### Personal protective equipment:

Gloves. Safety glasses.

##### Personal protective equipment symbol(s):



#### Eye and face protection

##### Eye protection:

Protective goggles

#### 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

#### Respiratory protection

##### Respiratory protection:

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

## 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

# Hydraulic Valve Lifter Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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 mm <sup>2</sup> /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/cm <sup>3</sup> @ 20°C (ASTM D4052)
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

### 9.2. Other information

#### Other safety characteristics

Other properties	: Dimethylsulfoxide (DMSO) <3%
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## 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

2-Pentanol, 4-methyl- (108-11-2)	
LD50 oral rat	2590 mg/kg bodyweight
LD50 oral	>
LD50 dermal rabbit	2870 mg/kg bodyweight
LD50 dermal	2870 mg/kg

# Hydraulic Valve Lifter Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

<b>2-Pentanol, 4-methyl- (108-11-2)</b>	
LC50 Inhalation - Rat	> 16 mg/l/4h Wistar
LC50 Inhalation - Rat (Dust/Mist)	16 mg/l/4h
<b>2-(2-butoxyethoxy)ethanol (112-34-5)</b>	
LD50 oral rat	7291 mg/kg bodyweight COBS, CD, BR
LD50 dermal rabbit	2764 mg/kg bodyweight New Zealand White
LC50 Inhalation - Rat [ppm]	> 29 ppm @2h
<b>Cyclohexanone (108-94-1)</b>	
LD50 oral rat	1890 mg/kg bodyweight
LD50 dermal rabbit	1100 mg/kg bodyweight
LC50 Inhalation - Rat	11 mg/l/4h
<b>Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)</b>	
LD50 oral rat	> 5000 (<) mg/kg bodyweight albino
LD50 dermal rat	> 2000 mg/kg bodyweight albino
<b>C16-18-(even numbered, saturated and unsatd.)-alkylamines (Oleylamine) (1213789-63-9)</b>	
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
<b>2-Pentanol, 4-methyl- (108-11-2)</b>	
STOT-single exposure	May cause respiratory irritation.
<b>C16-18-(even numbered, saturated and unsatd.)-alkylamines (Oleylamine) (1213789-63-9)</b>	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified
<b>C16-18-(even numbered, saturated and unsatd.)-alkylamines (Oleylamine) (1213789-63-9)</b>	
STOT-repeated exposure	May cause damage to organs (digestive tract, liver, immune system) through prolonged or repeated exposure (oral).
Aspiration hazard	: Not classified
<b>Hydraulic Valve Lifter Concentrate</b>	
Viscosity, kinematic	20 mm²/s @ 40°C (ASTM D445)
<b>2-(2-butoxyethoxy)ethanol (112-34-5)</b>	
Viscosity, kinematic	< 6,1 mm²/s
<b>Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)</b>	
Viscosity, kinematic	352,7 mm²/s
<b>C16-18-(even numbered, saturated and unsatd.)-alkylamines (Oleylamine) (1213789-63-9)</b>	
Viscosity, kinematic	6,064 mm²/s

# Hydraulic Valve Lifter Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 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

#### 2-Pentanol, 4-methyl- (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
ErC50 algae	334 mg/l
NOEC (acute)	48h 288 mg/l Daphnia magna
NOEC chronic algae	75,5 mg/l

#### 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 ( $\leq 732$ ) 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

#### Benzenamine, N-phenyl-, 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 Desmodesmus 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

#### Hydraulic Valve Lifter Concentrate

Persistence and degradability	Rapidly degradable
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#### 2-Pentanol, 4-methyl- (108-11-2)

Persistence and degradability	Readily biodegradable in water, easily degradable in the soil.
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# Hydraulic Valve Lifter Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 2-(2-butoxyethoxy)ethanol (112-34-5)

Persistence and degradability	Rapidly degradable
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### Cyclohexanone (108-94-1)

Persistence and degradability	Readily biodegradable.
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### Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)

Persistence and degradability	Rapidly degradable
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### C16-18-(even numbered, saturated and unsatd.)-alkylamines (Oleylamine) (1213789-63-9)

Persistence and degradability	Rapidly degradable
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## 12.3. Bioaccumulative potential

### 2-(2-butoxyethoxy)ethanol (112-34-5)

Partition coefficient n-octanol/water (Log Pow)	1
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### Cyclohexanone (108-94-1)

Bioaccumulative potential	Bioaccumulation unlikely.
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## 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, EC 2000/532)	: 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
<b>14.1. UN number or ID 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

# Hydraulic Valve Lifter Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

ADR	IMDG	IATA	ADN	RID
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
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

#### 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)

##### Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

##### 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)

# Hydraulic Valve Lifter Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### National regulations

#### France

Occupational diseases	
Code	Description
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

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

#### Netherlands

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

#### Poland

Polish National Regulations : Act of 25 February 2011 on chemical substances and their mixtures (J. o L. No. 63, item 322 as amended; consolidated text J. o L. 2019, item 1225).  
Act of 14 December 2012 on waste (J. o L. 2013, item 322 as amended; consolidated text J. o L. 2020, item 797).  
The announcement of Marshal of the Sejm of the Republic of Poland dated 19 October 2016 concerning the consolidated text announcement of the decree on the management of packaging and packaging waste (J. o L. 2016, item 1863 as amended).  
Decree of the Minister of Environment of 14 December 2014 on the catalogue of waste (J. o L. 2014, item 1923).  
Act of 19 August 2011 on the Carriage of Dangerous Goods (J. o L. 2011 No. 227, item 1367 as amended; consolidated text J. o L. 2020, item 154).  
Regulation of the Minister of Family, Labour and Social Policy of 12 June 2018 on the highest permissible concentration and intensity of noxious agents for health at work environment (J. o L. item 1286 as amended).  
The announcement of Minister of Health dated 9 September 2016 concerning the consolidated text announcement of the decree of the Minister of Health of 30 December 2004 on health and safety at work related to exposure to chemical agents at work (J. o L. of 16 September 2016, item 1488)  
Regulation of the Minister of Health of 2 February 2011 on tests and measurements of the noxious agents for health at work environment (J. o L. No. 33, item 166 as amended).  
Regulation of the Minister of Environment of 9 December 2003 on particularly hazardous substances to the environment (J. o L. No. 217, item 2141).  
ADR Agreement: Government Statement of 13 March 2023 on the entry into force of amendments to Annexes A and B to the Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), signed in Geneva on 30 September 1957 (J. o. L. 2023, item 891)

### 15.2. Chemical safety assessment

No additional information available

# Hydraulic Valve Lifter Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 16: Other information

Data sources : JISZ 7253 : 2019.

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
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
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.
H412	Harmful 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.