



ZHS Servo

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
 Issue date: 12-3-2021 Revision date: 3-12-2021 Supersedes: 20-4-2021 version: 2.1

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

1.1. Product identifier

Product form : Mixture
 Product name : ZHS Servo
 UFI : AMFF-012C-NA2F-6WTS
 Product code : ATR.ZHS Servo
 Type of product : Other engine, gear and lubricating oils.
 Product group : Blend

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

1.2.1. Relevant identified uses

Main use category : Professional use, Consumer use, Industrial use
 Industrial/Professional use spec : Non-dispersive use
 Used in closed systems
 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

Auto-Teile-Ring GmbH
 Marie-Curie-Strasse 3
 D-73770 Denkendorf Denkendorf - Germany
 T +49 (0)711 918979-99
info@cartechnic.de - www.carttechnic.de

1.4. Emergency telephone number

Country	Official advisory body	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)	
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	+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]

Aspiration hazard, Category 1 H304
 Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412
 Full text of H-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) :



GHS08

CLP Signal word

: Danger.

Hazardous ingredients

: Hydrotreated light paraffinic distillates (petroleum); Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics; Hydrogen desulphurised gas oils.

Hazard statements (CLP)

: H304 - May be fatal if swallowed and enters airways.
 H412 - Harmful to aquatic life with long lasting effects.

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Precautionary statements (CLP) : P273 - Avoid release to the environment.
P301+P310+P331 - IF SWALLOWED: Immediately call a POISON CENTER. Do NOT induce vomiting.
P501 - Dispose of container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Other hazards not contributing to the classification : If spilled, may cause the floor to be slippery. Forms thin oil film on surface of water.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments : Highly refined mineral oil, contains <3% (w/w) DMSO extract, according to IP346

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Distillates (petroleum), hydrotreated light paraffinic, Baseoil (Note L)	(CAS-No.) 64742-55-8 (EC-No.) 265-158-7 (EC Index-No.) 649-468-00-3 (REACH-no) 01-2119487077-29	≥ 40 – < 50	Asp. Tox. 1, H304
Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	(EC-No.) 934-954-2 (REACH-no) 01-2119826592-36	≥ 40 – < 50	Asp. Tox. 1, H304
Hydrogen desulphurised gas oils.	(CAS-No.) 64742-79-6 (EC-No.) 265-182-8 (REACH-no) 01-2119471311-49	≥ 5 – < 10	Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Carc. 1B, H350 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Alkylphenol (2,6-di-tert-butylphenol)	(CAS-No.) 128-39-2 (EC-No.) 204-884-0 (REACH-no) 01-2119490822-33	≥ 0,25 – < 1	Skin Irrit. 2, H315 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
tris(methylphenyl) phosphate	(CAS-No.) 1330-78-5 (EC-No.) 809-930-9 (REACH-no) 01-2119531335-46	≥ 0,1 – < 0,25	Repr. 2, H361d Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Phenol, dodecyl-, branched substance listed as REACH Candidate (Phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP))	(CAS-No.) 121158-58-5 (EC-No.) 310-154-3 (REACH-no) 01-2119513207-49	≥ 0,025 – < 0,1	Repr. 1B, H360F Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
Naphthalene	(CAS-No.) 91-20-3 (EC-No.) 202-049-5	< 0,01	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General : In all cases of doubt, or when symptoms persist, seek medical attention.

After inhalation : Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.

After skin contact : Wash skin with mild soap and water. Take off immediately all contaminated clothing and wash it before reuse. Get immediate medical advice/attention.

After eye contact : In case of eye contact, immediately rinse with clean water for 10-15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion : Do not induce vomiting. Rinse mouth out with water. Call a POISON CENTER/doctor if you feel unwell.

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

After inhalation : No specific data. May cause headache, nausea and irritation of respiratory tract.

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After skin contact	: May be harmful in contact with skin.
After eye contact	: Not expected to present a significant eye contact hazard under anticipated conditions of normal use.
After ingestion	: Entering the lungs by ingestion or vomiting may cause severe lung damage. Keep under medical supervision for at least 48 hours. After ingestion: Gastric and intestinal problems.

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	: Water spray, powder, foam and CO ₂ .
Unsuitable extinguishing media	: Do not use a water jet since it may cause the fire to spread.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, nitrogen oxides (NO _x). Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases. Very toxic by inhalation. May have a narcotic effect at high concentrations. Mass of toxic emissions per mass of combustion products.
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5.3. Advice for firefighters

Precautionary measures fire	: Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Self-contained breathing apparatus with an air line.
Other information	: Discharge combustion ash or solids themselves on permitted sites.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Avoid contact with skin and eyes. If spilled, may cause the floor to be slippery. Use protective clothing.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear suitable protective clothing and eye/face protection.
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6.1.2. For emergency responders

Protective equipment	: Wear suitable protective clothing and eye/face protection.
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6.2. Environmental precautions

Avoid release to the environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for cleaning up	: Clean up any spills as soon as possible, using an absorbent material to collect it. Collect all waste in suitable and labelled containers and dispose according to local legislation.
Other information	: If spilled, may cause the floor to be slippery.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Take action to prevent static discharges.
Precautions for safe handling	: Provide sufficient air exchange and/or exhaust. Wear personal protective equipment. Do not breathe vapours. Do not get in eyes, on skin, or on clothing.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Keep away from food, drink and animal feedingstuffs. Store in a closed container. Protect from moisture.
Storage conditions	: Store in original container.
Incompatible products	: Strong oxidizing agents.
Storage area	: Keep in a cool, well-ventilated place. Store in a closed container.

7.3. Specific end use(s)

Please refer to the product description for further information.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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EU	IOELV TWA (mg/m ³)	5 mg/m ³
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Naphthalene (91-20-3)

EU	IOELV TWA (mg/m ³)	50 mg/m ³
EU	IOELV TWA (ppm)	10 ppm
Germany	Notes	
United Kingdom	WEL TWA (mg/m ³)	50 mg/m ³

Additional information : Based on ACGIH TLV, a concentration of 5 mg/m³ oilspray (TWA, 8 hour workday) is recommended.

8.2. Exposure controls

Technical measures:

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment:

Gloves. Safety glasses.

Materials for protective clothing:

Wear suitable protective clothing, gloves and eye/face protection

Hand protection:

Wear suitable gloves resistant to chemical penetration

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,38		EN ISO 374, EN 420

Eye protection:

Wear security glasses which protect from splashes. Liquid splashes may occur. EN 166

Skin and body protection:

Long sleeved protective clothing

Respiratory protection:

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

Personal protective equipment symbol(s):



Environmental exposure controls:

Do not allow into drains or water courses. Not degradable in the soil.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Oily.
Colour	: Green.
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	: > 105 °C
Auto-ignition temperature	: No data available

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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	: 0,842 ($\geq 0,852$) @ 15°C
Density	: 842 (842 – 852) kg/m ³ @ 15°C
Solubility	: Insoluble in water. Water: Negligible.
Log Pow	: No data available
Viscosity, kinematic	: 18 (17 – 19) mm ² /s 40°C
Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive.
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content : 0 %

SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal conditions.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Strong oxidizing agent.

10.6. Hazardous decomposition products

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, nitrogen oxides (NO_x), sulphur compounds.

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
Additional information	: Swallowing the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis Keep under medical supervision for at least 48 hours

Distillates (petroleum), hydrotreated light paraffinic, Baseoil (64742-55-8)

LD50 oral rat	> 5000 mg/kg OECD 420
LD50 dermal rabbit	> 5000 mg/kg OECD 402
LC50 Inhalation - Rat	> 5 mg/l/4h OECD 403

tris(methylphenyl) phosphate (1330-78-5)

LD50 oral rat	3700 mg/kg
LD50 dermal rabbit	10000 mg/kg
LC50 Inhalation - Rat	11,1 mg/l

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics

LD50 oral rat	> 5000 mg/kg OECD 401
LD50 dermal rabbit	> 3160 mg/kg 24h OECD 402
LC50 Inhalation - Rat	5266 ml/m ³ OECD 403

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Hydrogen desulphurised gas oils. (64742-79-6)

LD50 oral rat	> 5000 mg/kg OECD 401
LD50 dermal rat	> 2000 mg/kg OECD 402
LC50 Inhalation - Rat	4,6 mg/l OECD 403

Alkylphenol (2,6-di-tert-butylphenol) (128-39-2)

LD50 oral rat	> 5000 mg/kg bodyweight
LD50 dermal rabbit	> 2000 mg/kg

Naphthalene (91-20-3)

LD50 oral rat	> 490 mg/kg
LD50 dermal rat	> 2200 mg/kg
LC50 Inhalation - Rat	> 500 mg/m ³ 8h

Skin corrosion/irritation	: Not classified.
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified. (This product is formulated with highly refined mineral oils which are considered under IARC as not carcinogenic. It was the IP 346 test showed that all oils in this product contains less than 3% extractable substances.)
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified

Alkylphenol (2,6-di-tert-butylphenol) (128-39-2)

NOAEL (oral, rat, 90 days)	100 mg/kg bodyweight
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Aspiration hazard : May be fatal if swallowed and enters airways.

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Viscosity, kinematic	18 (17 – 19) mm ² /s 40°C
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SECTION 12: Ecological information

12.1. Toxicity

Ecology - water	: 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)	: Harmful to aquatic life with long lasting effects.

Distillates (petroleum), hydrotreated light paraffinic, Baseoil (64742-55-8)

EC50 Daphnia 1	> 10000 mg/l OECD 202
EC50 other aquatic organisms 1	> 100 mg/l OECD 201
EC50 96h - Algae [1]	> 100 mg/l OECD 203
NOEC chronic fish	> 1000 mg/l 14/21d (Oncorhynchus mykiss - SQAR Petrotox)
NOEC chronic crustacea	10 mg/l OECD 211

tris(methylphenyl) phosphate (1330-78-5)

LC50 fish 1	0,6 mg/l
EC50 Daphnia 1	0,14 mg/l
EC50 72h - Algae [1]	0,4 mg/l Desmodesmus subspicatus
NOEC chronic fish	0,01 mg/l 28d (Oncorhynchus mykiss)

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Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics

LC50 fish 1	> 1028 mg/l OECD 203
EC50 Daphnia 1	> 3193 mg/l ISO 14996
EC50 72h - Algae [1]	> 10000 mg/l Skeletonema costatum ISO 10253
NOEC chronic fish	> 1000 mg/l 28d (Oncortynchus mykiss - QSAR Petrotox)
NOEC chronic crustacea	> 1000 mg/l 21d (Daphnia magna - QSAR Petrotox)

Hydrogen desulphurised gas oils. (64742-79-6)

LC50 fish 1	> 21 mg/l OECD 203 (Oncorhynchus mykiss)
EC50 Daphnia 1	7385 mg/l QSAR PetrotiOX
EC50 72h - Algae [1]	> 1000 mg/l
NOEC chronic crustacea	0,163 mg/l 21d (Daphnia magna - QSAR Petrotox)

Alkylphenol (2,6-di-tert-butylphenol) (128-39-2)

LC50 fish 1	1 mg/l
EC50 Daphnia 1	0,45 mg/l 48h
EC50 72h - Algae [1]	1,2 mg/l
LOEC (chronic)	0,086 mg/l Daphnia magna @21d
NOEC (chronic)	0,035 mg/l Daphnia magna @21d
NOEC chronic fish	0,3 mg/l 28d
NOEC chronic crustacea	0,035 mg/l 21d

Naphthalene (91-20-3)

LC50 fish 1	≈ 1,6 mg/l Oncorhynchus mykiss
LC50 other aquatic organisms 2	2,16 mg/l @48h Daphnia magna
EC50 Daphnia 1	≈ 1,96 mg/l @48h Daphnia magna
EC50 other aquatic organisms 1	≈ 0,93 mg/l 30 min
EC50 other aquatic organisms 2	> 20 mg/l 18h

12.2. Persistence and degradability

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Persistence and degradability	Not soluble in water, so only minimally biodegradable.
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Phenol, dodecyl-, branched (121158-58-5)

Biodegradation	25 % Sturm-test @28d
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12.3. Bioaccumulative potential

Phenol, dodecyl-, branched (121158-58-5)

Bioconcentration factor (BCF REACH)	2,9 @27d
Log Kow	7,1 @0,1d

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Component

Phenol, dodecyl-, branched (121158-58-5)	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
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12.6. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste materials	: Empty the packaging completely prior to disposal.
European List of Waste (LoW) code	: 13 01 10* - mineral based non-chlorinated hydraulic oils

SECTION 14: Transport information

In accordance with ADR / IMDG

ADR	IMDG
14.1. UN number	
Not applicable	Not applicable
14.2. UN proper shipping name	
Not applicable	Not applicable
14.3. Transport hazard class(es)	
Not applicable	Not applicable
14.4. Packing group	
Not applicable	Not applicable
14.5. Environmental hazards	
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No
No supplementary information available	

14.6. Special precautions for user

Overland transport

No data available

Transport by sea

No data available

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list $\geq 0,1$ % / SCL

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : 0 %

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Indication of changes:

Section	Changed item	Change	Comments
	Revision date	Modified	
	Type of product	Added	

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	Comments (on top of composition)	Modified	
1.1	Product group	Added	
2.2	Precautionary statements (CLP)	Modified	

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) 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 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 1B	Carcinogenicity, Category 1B
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Repr. 1B	Reproductive toxicity, Category 1B
Repr. 2	Reproductive toxicity, Category 2
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H350	May cause cancer.
H351	Suspected of causing cancer.
H360F	May damage fertility.
H361d	Suspected of damaging the unborn child.
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.
H412	Harmful to aquatic life with long lasting effects.

SDS MPM REACH

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.