according to UK REACH Regulation

ADDINOL Antifreeze Super

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

1.1. Product identifier

ADDINOL Antifreeze Super

UFI: 7SH3-69T2-020U-45N6

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

Use of the substance/mixture

Refrigerant. Anti-freezing agent.

1.3. Details of the supplier of the safety data sheet

Manufacturer

Company name: ADDINOL Lube Oil GmbH

Gebäude 4609

Street: Am Haupttor Place: D-06237 Leuna

Telephone: +49 (0) 3461 845-0 Telefax: +49 (0) 3461 845-555

e-mail: info@addinol.de
Contact person: Application Technology
Internet: www.addinol.de

Responsible Department: ADDINOL Application Technology

Supplier

Company name: Specialised Products (Western) Limited
Street: 76 Cobham Road, Ferndown Industrial Estate

Place: GB-BH21 7RN Wimborne, Dorset

Telephone: +44 1202 891393 Telefax: +44 1202 876908

e-mail: sales@specialisedproducts.co.uk
Internet: http://specialisedproducts.co.uk

1.4. Emergency telephone +44 1202 891393 - This number is serviced during office hours.

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Acute Tox. 4; H302 Repr. 1B; H360FD STOT RE 2; H373

Full text of hazard statements: see SECTION 16.

This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

ethanediol; ethylene glycol **Signal word:**Danger

Pictograms:





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Hazard statements

H302 Harmful if swallowed.

H360FD May damage fertility. May damage the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P201 Obtain special instructions before use.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing

protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P501 Dispose of contents/container to industrial incineration plant.

Special labelling of certain mixtures

Restricted to professional users.

Additional advice on labelling

The product is classified and labelled according to EC directives or corresponding national laws.

2.3. Other hazards

Spilled product must not leak into the ground.

Do not allow uncontrolled leakage of product into the environment.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

Chemical name			
EC No	Index No	REACH No	
Classification (GB CLP Regulation))	•	
ethanediol; ethylene glycol			> 80 %
203-473-3	603-027-00-1		
Acute Tox. 4, STOT RE 2; H302 H	373	•	
Sodium benzoate			< 5 %
208-534-8		01-2119460683-35	
Eye Irrit. 2; H319			
disodium tetraborate pentahydrate	borax pentahydrate		<3 %
215-540-4	005-011-00-4		
Repr. 1B; H360FD	•	•	
Methyl-1H-benzotriazole			0.5 - < 1 %
249-596-6			
Repr. 2, Acute Tox. 4, Aquatic Chronic 2; H361d H302 H411			
	EC No Classification (GB CLP Regulation) ethanediol; ethylene glycol 203-473-3 Acute Tox. 4, STOT RE 2; H302 H: Sodium benzoate 208-534-8 Eye Irrit. 2; H319 disodium tetraborate pentahydrate; 215-540-4 Repr. 1B; H360FD Methyl-1H-benzotriazole 249-596-6	EC No Index No Classification (GB CLP Regulation) ethanediol; ethylene glycol 203-473-3 603-027-00-1 Acute Tox. 4, STOT RE 2; H302 H373 Sodium benzoate 208-534-8 Eye Irrit. 2; H319 disodium tetraborate pentahydrate; borax pentahydrate 215-540-4 005-011-00-4 Repr. 1B; H360FD Methyl-1H-benzotriazole 249-596-6	EC No

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

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Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity		
	Specific Conc. Limits, M-factors and ATE				
107-21-1	203-473-3	ethanediol; ethylene glycol	> 80 %		
	inhalation: LC5	0 = >2,5 mg/l (vapours); dermal: LD50 = > 3500 mg/kg; oral: LD50 = 7712 mg/kg			
532-32-1	208-534-8	Sodium benzoate	< 5 %		
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = 3450 mg/kg				
29385-43-1	249-596-6	Methyl-1H-benzotriazole	0.5 - < 1 %		
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = ca. 720 mg/kg				

Further Information

Classification system: The classification corresponds to the current EC lists and is completed by information from specialist literature and company information.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Self-protection of the first aider. Change contaminated clothing. Do not put any product-impregnated cleaning rags into your trouser pockets.

After inhalation

Move victim to fresh air. Put victim at rest and keep warm. In case of persistent complaints seek medial advice.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Change contaminated clothing. Use skin protection ointment after cleaning. In case of skin irritation, seek medical treatment.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion

Do NOT induce vomiting.

Rinse mouth thoroughly with water. Call a physician immediately.

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

Ingestion causes nausea, weakness and central nervous system effects. The following symptoms may occur: Dizziness. Headache. drowsiness. Disorientation.

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

Foam. Extinguishing powder. Carbon dioxide (CO2).

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO2), ketone, aldehydes.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Co-ordinate fire-fighting measures to the fire surroundings. Use water spray/stream to protect personnel and to cool endangered containers. In case of fire and/or explosion do not breathe fumes. Contaminated fire-fighting

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water must be collected separately. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

High slip hazard because of leaking or spilled product. Remove all sources of ignition. Wear breathing apparatus if exposed to vapours/dusts/aerosols. Avoid contact with skin, eye and clothing.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities. Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3. Methods and material for containment and cleaning up

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8
Section 12: Ecological Information (non-mandatory)

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Keep away from sources of ignition - No smoking. The following must be prevented: inhalation. Provide adequate ventilation as well as local exhaustion at critical locations. Wear personal protection equipment. Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop. Take precautionary measures against static discharges. Use only antistatically equipped (spark-free) tools.

Advice on general occupational hygiene

Wash hands before breaks and after work. Take off immediately all contaminated clothing. Wash contaminated clothing prior to re-use. Do not eat, drink, smoke or sneeze at the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Never use pressure to empty container. Keep the packing dry and well sealed to prevent contamination and absorbtion of humidity. Keep/Store only in original container.

Hints on joint storage

Keep away from food, drink and animal feedingstuffs.

Keep away from: Oxidizing agents, strong.

Further information on storage conditions

Protect against: heat. UV-radiation/sunlight. frost. Recommended storage temperature: 5 - 40°C

7.3. Specific end use(s)

Refrigerant. Anti-freezing agent. Further information: see technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

according to UK REACH Regulation

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Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
11130-12-4	Disodium tetraborate, pentahydrate	-	1		TWA (8 h)	WEL
107-21-1	Ethane-1,2-diol, vapour	20	52		TWA (8 h)	WEL
		40	104		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance			
DNEL type	•	Exposure route	Effect	Value
107-21-1	ethanediol; ethylene glycol			
Worker DNEL	, long-term	inhalation	local	35 mg/m³
Worker DNEL	, long-term	dermal	systemic	106 mg/kg bw/day
Consumer DN	EL, long-term	inhalation	local	7 mg/m³
Consumer DN	EL, long-term	dermal	systemic	53 mg/kg bw/day
532-32-1	Sodium benzoate			
Worker DNEL	, long-term	inhalation	systemic	3 mg/m³
Worker DNEL	, long-term	inhalation	local	0,1 mg/m³
Worker DNEL	, long-term	dermal	systemic	62,5 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	1,5 mg/m³
Consumer DNEL, long-term		inhalation	local	0,06 mg/m³
Consumer DNEL, long-term		dermal	systemic	31,25 mg/kg bw/day
Consumer DN	EL, long-term	oral	systemic	16,6 mg/kg bw/day
29385-43-1	Methyl-1H-benzotriazole			
Worker DNEL	, long-term	inhalation	systemic	21,2 mg/m³
Worker DNEL, long-term		dermal	systemic	0,3 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	0,01 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,01 mg/kg bw/day

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PNEC values

THEO VAIA		
CAS No	Substance	
Environment	Environmental compartment	
532-32-1	Sodium benzoate	
Freshwater		0,581 mg/l
Freshwater ((intermittent releases)	0,058 mg/l
Marine wate	r	0,058 mg/l
Freshwater	sediment	2,5 mg/kg
Marine sedir	nent	0,25 mg/kg
Secondary poisoning		300 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0,159 mg/kg
29385-43-1 Methyl-1H-benzotriazole		
Freshwater		0,008 mg/l
Freshwater (intermittent releases)		0,086 mg/l
Marine water		0,02 mg/l
Freshwater sediment		0,117 mg/kg
Marine sediment 0,292		0,292 mg/kg
Micro-organisms in sewage treatment plants (STP) 39,4 mg/l		39,4 mg/l
Soil 0,0187 mg/kg		

Additional advice on limit values

source:

8.2. Exposure controls





Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN): EN 166

Hand protection

Tested protective gloves are to be worn: German Industry Norms (DIN) / European Norms (EN): EN ISO 374

Duration of wearing with permanent contact: 480 min

Suitable material: NBR (Nitrile rubber). Thickness of glove material: 0.7 mm.

Wearing time with occasional contact (splashes): 30 min

Suitable material: NBR (Nitrile rubber). Thickness of glove material: 0.4 mm

Protect skin by using skin protective cream.

Skin protection

Wear suitable protective clothing. Change contaminated clothing. Do not put any product-impregnated cleaning rags into your trouser pockets.

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Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Breathing protection with filter against organic gases and vapours type A - boiling point > 65°C: A1: < 1000 ppm; A2: < 5000 ppm; A3: < 10000 ppm

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: blue - green
Odour: characteristic
Odour threshold: not determined

Test method

Changes in the physical state

Melting point/freezing point:

not determined

Boiling point or initial boiling point and

174 °C .

boiling range:

Flash point: 122 °C DIN EN ISO 22719

Flammability

Solid/liquid: not determined
Gas: not determined

Explosive properties

not determined

Lower explosion limits:

Upper explosion limits:

not determined

not determined

Auto-ignition temperature:

not determined

Self-ignition temperature

Solid: not determined Gas: not determined Decomposition temperature: not determined pH-Value (at 20 °C): 7,2

Viscosity / kinematic: not applicable

(at 40 °C)

Water solubility: easily soluble.

Solubility in other solvents

not determined

Partition coefficient n-octanol/water: not determined

Vapour pressure: not determined

Density (at 20 °C): 1,125 g/cm³ DIN 51757

Relative vapour density: not determined

9.2. Other information

Information with regard to physical hazard classes

Oxidizing properties not determined

Other safety characteristics

Evaporation rate: not determined

Further Information

according to UK REACH Regulation

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No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable under storage at normal ambient temperatures.

10.2. Chemical stability

The mixture is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Refer to chapter 7 No further action is necessary.

Do not overheat to avoid decomposition by heat.

10.5. Incompatible materials

Reacts with: Strong acid, Oxidizing agents, strong., Nitrates. Chlorates. Peroxides.

10.6. Hazardous decomposition products

In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO2). ketone. aldehydes.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

Harmful if swallowed.

No data available

Mixture not tested.

ATEmix calculated

ATE (oral) 555,6 mg/kg

CAS No	Chemical name						
	Exposure route	Dose		Species	Source	Method	
107-21-1	ethanediol; ethylene glyd	col					
	oral	LD50 mg/kg	7712	Rat	Study report (1968)	according to BASF-internal standards	
	dermal	LD50 mg/kg	> 3500	Mouse	Fundamental and Applied Toxicology 27: 1	LD50 derived from developmental toxicity	
	inhalation (4 h) vapour	LC50	>2,5 mg/l	Rat			
532-32-1	Sodium benzoate						
	oral	LD50 mg/kg	3450	Rat	Publication (1953)	Study predates approved guidelines. Unfa	
	dermal	LD50 mg/kg	> 2000	Rabbit	Study report (1974)	4 rabbits were dermally exposed	
29385-43-1	Methyl-1H-benzotriazole						
	oral	LD50 mg/kg	ca. 720	Rat	Study report (1983)	OECD Guideline 401	
	dermal	LD50 mg/kg	> 2000	Rabbit	Study report (1984)	OECD Guideline 402	

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Irritation and corrosivity

Based on available data, the classification criteria are not met.

Irritant effect on the eye: strongly irritant.

Irritant effect on the skin: Prolonged/repetitive skin contact may cause skin defattening or dermatitis.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

May damage fertility. May damage the unborn child. (disodium tetraborate pentahydrate; borax pentahydrate)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (ethanediol; ethylene glycol)

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

No data available

Additional information on tests

This product contains ethylene glycol (EG). The toxicity of EG via inhalation or skin contact is expected to be slight at room temperature. The estimated oral lethal dose is about 100 cc (3.3 oz.) for an adult human. Ethylene glycol is oxidized to oxalic acid which results in the deposition of calcium oxalate crystals mainly in the brain and kidneys. Early signs and symptoms of EG poisoning may resemble those of alcohol intoxication. Later, the victim may experience nausea, vomiting, weakness, abdominal and muscle pain, difficulty in breathing and decreased urine output. When EG was heated above the boiling point of water, vapors formed which reportedly caused unconsciousness, increased lymphocyte count, and a rapid, jerky movement of the eyes in persons chronically exposed. When EG was administered orally to pregnant rats and mice, there was an increase in fetal deaths and birth defects. Some of these effects occurred at doses that had no toxic effects on the mothers. We are not aware of any reports that EG causes reproductive toxicity in human beings.

11.2. Information on other hazards

Endocrine disrupting properties

not applicable

SECTION 12: Ecological information

12.1. Toxicity

No data available

Mixture not tested.

according to UK REACH Regulation

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CAS No	Chemical name							
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method	
107-21-1	ethanediol; ethylene glyco	ol						
	Acute fish toxicity	LC50 mg/l	53000	96 h	Pimephales promelas	Publication (1983)	other: ASTM Subcommittee on Safety to Aq	
	Acute algae toxicity	ErC50 13000 mg/l	6500 -	96 h	Raphidocelis subcapitata	Study report (1982)	other: EPA 600/9-78-018, 1978	
	Acute crustacea toxicity	EC50 mg/l	> 100	48 h	Daphnia magna	Study report (1998)	OECD Guideline 202	
	Fish toxicity	NOEC mg/l	> 40	28 d	Menidia peninsulae	Publication (1985)	other: ASTM E-47.01	
	Crustacea toxicity	NOEC mg/l	8590	7 d	Ceriodaphnia dubia	Environ. Toxicology and Chemistry, Vol.	other: EPA 600/4-89/001. U.S. Environmen	
	Acute bacteria toxicity	(EC50 mg/l)	> 1000	3 h	activated sludge, domestic	Chemosphere 14(9), 1239-1251 (1985)	OECD Guideline 209	
532-32-1	Sodium benzoate							
	Acute fish toxicity	LC50	484 mg/l	96 h	Pimephales promelas	Vol. 2: 139-140. University of Wisconsin	EPA OPP 72-1	
	Acute algae toxicity	ErC50 mg/l	> 30,5	72 h	Raphidocelis subcapitata	Study report (2010)	OECD Guideline 201	
	Crustacea toxicity	NOEC mg/l	5,81	21 d	Daphnia magna	REACh Registration Dossier	OECD Guideline 211	
29385-43-1	Methyl-1H-benzotriazole							
	Acute fish toxicity	LC50	55 mg/l	96 h	Cyprinodon variegatus	Study report (2003)	other: The test procedure is based on te	
	Acute algae toxicity	ErC50	75 mg/l	72 h	Raphidocelis subcapitata	Study report (1994)	OECD Guideline 201	
	Acute crustacea toxicity	EC50 mg/l	15,8	48 h	other aquatic crustacea: Daphnia galeata	Environ Sci Pollut Res 19:1781-1790 (201	OECD Guideline 202	
	Crustacea toxicity	NOEC mg/l	18,4	21 d	Daphnia magna	Study report (1995)	other: "Daphnia Reproduction Test" of OE	

12.2. Persistence and degradability

Product is partially biodegradable.

12.3. Bioaccumulative potential

No data available

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
107-21-1	ethanediol; ethylene glycol	-1,36
532-32-1	Sodium benzoate	1,88
29385-43-1	Methyl-1H-benzotriazole	1,079

12.4. Mobility in soil

No data available

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12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No data available

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Must not be disposed of with domestic refuse. Do not allow to enter into surface water or drains.

List of Wastes Code - residues/unused products

WASTES NOT OTHERWISE SPECIFIED IN THE LIST; end-of-life vehicles from different means of 160114 transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08); antifreeze fluids containing hazardous substances; hazardous waste

Contaminated packaging

Contaminated packages must be completely emptied and can be re-used following proper cleaning. Dispose of waste according to applicable legislation. Packing which cannot be properly cleaned must be thrown away.

SECTION 14: Transport information

Land transport (ADR/RID)	
14.1. UN number or ID number:	-
14.2. UN proper shipping name:	-
14.3. Transport hazard class(es):	-
14.4. Packing group:	-
Inland waterways transport (ADN)	
14.1. UN number or ID number:	-
14.2. UN proper shipping name:	-
14.3. Transport hazard class(es):	-
14.4. Packing group:	-
Marine transport (IMDG)	
14.1. UN number or ID number:	-
14.2. UN proper shipping name:	-
14.3. Transport hazard class(es):	-
14.4. Packing group:	-
Air transport (ICAO-TI/IATA-DGR)	
14.1. UN number or ID number:	-
14.2. UN proper shipping name:	-
14.3. Transport hazard class(es):	-

14.4. Packing group: 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

14.7. Maritime transport in bulk according to IMO instruments

according to UK REACH Regulation

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not applicable

Other applicable information

No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

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

EU regulatory information

Authorisations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59): disodium tetraborate pentahydrate; borax pentahydrate

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 30, Entry 75

National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,4,6,7,9,11,12,16.

Abbreviations and acronyms

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road: ADN -European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ASTM - American Society for the Testing of Materials; ATE - Acute Toxicity Estimates; bw - Body weight; CAO -Cargo Aircraft Only; CAS - Chemical Abstracts Service; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DNEL - Derived No-Effect Level; DOT -Department of Transportation; DSL - Domestic Substances List (Canada); EG - European Union; EN -European standards; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n;o;s; - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; OECD - Organization for Economic Co-operation and Development; PBT -Persistent, Bioaccumulative and Toxic substance; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID -Regulation concerning the International Carriage of Dangerous Goods by Rail; RQ -Reportable Quantity; SADT - Self- Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TSCA - Toxic Substances Control Act (United States); UN -United Nations; vPvB - Very Persistent and Very Bioaccumulative

according to UK REACH Regulation

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Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure	
Acute Tox. 4; H302	Calculation method	
Repr. 1B; H360FD	Calculation method	
STOT RE 2; H373	Calculation method	

Relevant H and EUH statements (number and full text)

H302 Harmful if swallowed. H319 Causes serious eye irritation.

H360FD May damage fertility. May damage the unborn child.

H361d Suspected of damaging the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

Further Information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)