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Revision date / version: 09.10.2023 / 0014

Replacing version dated / version: 17.08.2023 / 0013

Valid from: 09.10.2023 PDF print date: 09.10.2023 Common Rail Additive

# Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

#### 1.1 Product identifier

## **Common Rail Additive**

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

Additives

#### **Uses advised against:**

No information available at present.

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

LIQUI MOLY GmbH Jerg-Wieland-Str. 4 89081 Ulm-Lehr Tel.: (+49) 0731-1420-0

Fax: (+49) 0731-1420-88

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

#### 1.4 Emergency telephone number

Emergency information services / official advisory body:

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## Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (LMR)

+1 872 5888271 (LMR)

#### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)
Hazard class Hazard category Hazard statement

Asp. Tox. 1 H304-May be fatal if swallowed and enters airways. Aquatic Chronic 2 H411-Toxic to aquatic life with long lasting effects.

## 2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)





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#### Danger

H304-May be fatal if swallowed and enters airways. H411-Toxic to aquatic life with long lasting effects.

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children.

P273-Avoid release to the environment.

P301+P310-IF SWALLOWED: Immediately call a POISON CENTER / doctor. P331-Do NOT induce vomiting. P391-Collect spillage.

P405-Store locked up.

P501-Dispose of contents / container to an approved waste disposal facility.

EUH044-Risk of explosion if heated under confinement.

EUH066-Repeated exposure may cause skin dryness or cracking.

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics

#### 2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

## **SECTION 3: Composition/information on ingredients**

## 3.1 Substances

## n.a. **3.2 Mixtures**

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	
Registration number (REACH)	01-2119457273-39-XXXX
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	918-481-9
CAS	
content %	70-90
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	EUH066
	Asp. Tox. 1, H304

2-ethylhexyl nitrate	
Registration number (REACH)	01-2119539586-27-XXXX
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	248-363-6
CAS	27247-96-7
content %	10-<25
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	EUH044
	EUH066
	Acute Tox. 4, H302
	Acute Tox. 4, H312
	Acute Tox. 4, H332
	Aquatic Acute 1, H400 (M=1)
	Aguatic Chronic 1, H410 (M=1)

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

If, for example, the note P is applied for a hydrocarbon then this has already been taken into account for the classification named here. Quote: "Note P - The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7).

Article 4 of the regulation (EC) no. 1272/2008 (CLP regulation) was also observed and taken into account for the classification named here.



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The addition of the highest concentrations listed here can result in a classification. Only when this classification is listed in Section 2 does it apply. In all other cases the total concentration is below the classification.

### **SECTION 4: First aid measures**

## 4.1 Description of first aid measures

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

#### Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

#### Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

#### **Eve contact**

Remove contact lenses.

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

#### Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting. Consult doctor immediately.

Danger of aspiration.

In case of vomiting, keep head low so that the stomach content does not reach the lungs.

Immediate admittance to a hospital.

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

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

Ingestion:

Nausea

Vomiting

Danger of aspiration.

Oedema of the lungs

Chemical pneumonitis (condition similar to pneumonia)

#### 4.3 Indication of any immediate medical attention and special treatment needed

Gastric lavage (stomach washing) only under endotracheal intubation.

Pulmonary oedema prophylaxis

Subsequent observation for pneumonia and pulmonary oedema.

## **SECTION 5: Firefighting measures**

## 5.1 Extinguishing media Suitable extinguishing media

Water jet spray/foam/CO2/dry extinguisher

#### Unsuitable extinguishing media

High volume water jet

#### 5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon

Oxides of nitrogen

Toxic gases

Flammable vapour/air mixtures

## 5.3 Advice for firefighters

For personal protective equipment see Section 8.

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire

Full protection, if necessary.

Cool container at risk with water.

Dispose of contaminated extinction water according to official regulations.



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#### **SECTION 6: Accidental release measures**

## 6.1 Personal precautions, protective equipment and emergency procedures

## 6.1.1 For non-emergency personnel

In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.

Ensure sufficient ventilation, remove sources of ignition.

Avoid dust formation with solid or powder products.

Leave the danger zone if possible, use existing emergency plans if necessary.

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping.

#### 6.1.2 For emergency responders

See section 8 for suitable protective equipment and material specifications.

#### 6.2 Environmental precautions

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

Prevent surface and ground-water infiltration, as well as ground penetration.

Prevent from entering drainage system.

If accidental entry into drainage system occurs, inform responsible authorities.

## 6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth, sawdust) and dispose of according to Section 13.

## 6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

## **SECTION 7: Handling and storage**

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

## 7.1 Precautions for safe handling

## 7.1.1 General recommendations

Ensure good ventilation.

Avoid inhalation of the vapours.

Avoid contact with eyes or skin.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Observe directions on label and instructions for use.

Use working methods according to operating instructions.

## 7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

## 7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.

Store product closed and only in original packing.

Not to be stored in gangways or stair wells.

Do not store with flammable or self-igniting materials.

Under all circumstances prevent penetration into the soil.

Protect from direct sunlight and warming.

Store in a well ventilated place.

## 7.3 Specific end use(s)

No information available at present.

Observe the instructions for good working practice and the recommendations for risk assessment.

Consult hazardous substance information systems, e.g. from the professional associations, the chemical industry or different industries, depending on the application (building materials, wood, chemistry, laboratory, leather, metal).

#### **SECTION 8: Exposure controls/personal protection**

## 8.1 Control parameters

Workplace exposure limit (WEL) of the total hydrocarbon solvent content of the mixture (RCP method according to EH40):



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800 mg/m3

	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% are	omatics							
WEL-TWA: 800 mg/m3	WEL-STEL:								
Monitoring procedures:	- Draeger - Hydrocarbons 0,1%/c (81 03 571)								
	- Draeger - Hydrocarbons 2/a (81 03 581)								
	- Compur - KITA-187 S (551 174)								
BMGV:	Other info	ormation: (OEL acc. to RCP-method,							
	paragrap	ns 84-87, EH40)							

2-ethylhexyl nitrate Area of application	Exposure route /	Effect on health	Descriptor	Value	Unit	Note
	Environmental		-			
	compartment					
	Environment - freshwater		PNEC	0,8	μg/l	
	Environment - marine		PNEC	0,08	μg/l	
	Environment - soil		PNEC	0,00019 1	mg/kg dw	
	Environment - sediment, freshwater		PNEC	0,00074	mg/kg dw	
	Environment - sediment, marine		PNEC	0,00074	mg/kg dw	
	Environment - sewage treatment plant		PNEC	10	mg/l	
Consumer	Human - dermal	Long term, systemic effects	DNEL	0,52	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,087	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,025	mg/kg bw/day	
Consumer	Human - dermal	Long term, local effects	DNEL	0,022	mg/cm2	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	1	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	0,35	mg/m3	
Workers / employees	Human - dermal	Long term, local effects	DNEL	0,044	mg/cm2	

- WEL-TWA = Workplace Exposure Limit Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).
- (8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (Directive 2004/37/CE). | WEL-STEL = Workplace Exposure Limit Short-term exposure limit (15-minute reference period).
- (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
- \*\* = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.
- (13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14) = The substance can cause sensitisation of the skin (Directive 2004/37/CE).

#### 8.2 Exposure controls

## 8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.

These are specified by e.g. EN 14042.



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EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

## 8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:

Tight fitting protective goggles (EN 166) with side protection, with danger of splashes.

Skin protection - Hand protection:

Chemical resistant protective gloves (EN ISO 374).

If applicable

Protective nitrile gloves (EN ISO 374).

Protective gloves made of polyvinyl alcohol (EN ISO 374).

Protective Viton® / fluoroelastomer gloves (EN ISO 374).

Minimum layer thickness in mm:

Permeation time (penetration time) in minutes:

The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.

The recommended maximum wearing time is 50% of breakthrough time.

Protective hand cream recommended.

Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection: If OES or MEL is exceeded.

Gas mask filter A (EN 14387), code colour brown

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

Not applicable

manufacturer.

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account. Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

#### 8.2.3 Environmental exposure controls

No information available at present.

## **SECTION 9: Physical and chemical properties**

## 9.1 Information on basic physical and chemical properties

Physical state: Liquid Red-brown Colour: Odour: Characteristic

Melting point/freezing point: There is no information available on this parameter.

Boiling point or initial boiling point and boiling range: There is no information available on this parameter. Flammability: There is no information available on this parameter.

Lower explosion limit: There is no information available on this parameter. Upper explosion limit: There is no information available on this parameter. >63 °C

Flash point:

Auto-ignition temperature: There is no information available on this parameter. Decomposition temperature: There is no information available on this parameter.



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Kinematic viscosity:

Kinematic viscosity: Solubility:

Partition coefficient n-octanol/water (log value):

Vapour pressure:

Density and/or relative density:

Relative vapour density:

Particle characteristics:

9.2 Other information No information available at present. Mixture is non-soluble (in water).

<=20,5 mm2/s (40°C) 1,5296 mm2/s (40°C)

Insoluble

Does not apply to mixtures.

There is no information available on this parameter.

0,8261 g/cm3 (20°C)

There is no information available on this parameter.

Does not apply to liquids.

## **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

The product has not been tested.

#### 10.2 Chemical stability

Stable with proper storage and handling.

## 10.3 Possibility of hazardous reactions

No dangerous reactions are known.

#### 10.4 Conditions to avoid

Heating, open flame, ignition sources

## 10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

## 10.6 Hazardous decomposition products

No decomposition when used as directed.

## **SECTION 11: Toxicological information**

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Possibly more information on health effects, see Section 2.1 (classification).

Common Rail Additive						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	ATE	>2000	mg/kg			calculated value
Acute toxicity, by dermal route:	ATE	>2000	mg/kg			calculated value
Acute toxicity, by inhalation:	ATE	>20	mg/l/4h			calculated value, Vapours
Acute toxicity, by inhalation:	ATE	>5	mg/l/4h			calculated value, Aerosol
Skin corrosion/irritation:						Repeated exposure may cause skin dryness or cracking.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics								
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes		



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Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral	Analogous
					Toxicity)	conclusion
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute	Analogous
					Dermal Toxicity)	conclusion
Acute toxicity, by inhalation:	LC50	>4951	mg/m3/4h	Rat	OECD 403 (Acute	Analogous
					Inhalation Toxicity)	conclusion,
						Vapours
Skin corrosion/irritation:					OECD 404 (Acute	Not irritant,
					Dermal	Analogous
					Irritation/Corrosion)	conclusion
Serious eye damage/irritation:					OECD 405 (Acute Eye	Not irritant,
, ,					Irritation/Corrosion)	Analogous
					· ·	conclusion
Respiratory or skin					OECD 406 (Skin	Not sensitizising
sensitisation:					Sensitisation)	Analogous
					,	conclusion
Germ cell mutagenicity:					OECD 473 (In Vitro	Negative,
,-					Mammalian	Analogous
					Chromosome	conclusion
					Aberration Test)	
Germ cell mutagenicity:					OECD 474 (Mammalian	Negative,
John John Managementy.					Erythrocyte	Analogous
					Micronucleus Test)	conclusion
Germ cell mutagenicity:				Salmonella	OECD 471 (Bacterial	Negative
Com con matagornony.				typhimurium	Reverse Mutation Test)	rioganio
Carcinogenicity:				сургинганан	OECD 453 (Combined	Negative,
Carolinogeriloity.					Chronic	Analogous
					Toxicity/Carcinogenicity	conclusion
					Studies)	CONGRESION
Reproductive toxicity:					OECD 414 (Prenatal	Negative,
Noproductive toxicity.					Developmental Toxicity	Analogous
					Study)	conclusion
Specific target organ toxicity -					OECD 408 (Repeated	Negative,
repeated exposure (STOT-RE):					Dose 90-Day Oral	Analogous
repeated exposure (OTOT-NE).					Toxicity Study in	conclusion
					Rodents)	CONCIUSION
Aspiration hazard:					Nodelita)	Yes
Symptoms:						unconsciousnes
Cymptoma.						, headaches,
						dizziness,
						· ·
						mucous
						membrane
						irritation

2-ethylhexyl nitrate		_				
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by dermal route:						Experiences on
						persons.,
						Harmful
Acute toxicity, by inhalation:	LCLo	>4,6	mg/l/1h	Rat		Mist
Acute toxicity, by inhalation:						Experiences on
						persons.,
						Harmful
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute	Not irritant,
					Dermal	Repeated
					Irritation/Corrosion)	exposure may
						cause skin
						dryness or
						cracking.
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye	Not irritant
					Irritation/Corrosion)	
Respiratory or skin				Guinea pig	OECD 406 (Skin	No (skin contact)
sensitisation:					Sensitisation)	,



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Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Germ cell mutagenicity:				Human being	OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Reproductive toxicity:	NOAEL	20	mg/kg bw/d	Rat	OECD 421 (Reproduction/Developm ental Toxicity Screening Test)	Negative, oral
Specific target organ toxicity - repeated exposure (STOT-RE), dermal:	NOAEL	500	mg/kg bw/d	Rabbit		Negativedermal
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEL	863	mg/m3	Rat	OECD 413 (Subchronic Inhalation Toxicity - 90- Day Study)	Vapours, Analogous conclusion(90 d)
Symptoms:						headaches, dizziness, nausea, drop in blood pressure, diarrhoea, unconsciousness , eyes, reddened

## 11.2. Information on other hazards

Common Rail Additive									
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes			
Endocrine disrupting properties:						Does not apply			
						to mixtures.			
Other information:						No other			
						relevant			
						information			
						available on			
						adverse effects			
						on health.			

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics										
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes				
Other information:						Repeated				
						exposure may				
						cause skin				
						dryness or				
						cracking.				

## **SECTION 12: Ecological information**

Possibly more information on environmental effects, see Section 2.1 (classification).

Common Rail Additive							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and							n.d.a.
degradability:							
12.3. Bioaccumulative							n.d.a.
potential:							
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT							n.d.a.
and vPvB assessment							



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12.6. Endocrine			Does	not apply
disrupting properties:			to mix	tures.
12.7. Other adverse			No info	ormation
effects:			availal	ble on
			other a	adverse
			effects	s on the
			enviro	nment.
Other information:			DOC-e	elimination
			degree	e(complexi
			ng org	
			substa	ance)>=
			80%/2	28d: No
Other information:	AOX	%	Accord	ding to the
			recipe	, contains
			no AO	X.

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	NOELR	28d	0,101	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to fish:	LL50	96h	>1000	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EL50	48h	>1000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOELR	21d	0,176	mg/l	Daphnia magna	,	
12.1. Toxicity to algae:	EL50	72h	>1000	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	80	%	activated sludge	OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
12.3. Bioaccumulative potential:	BCF		10-2500				High
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Other organisms:	EL50	48h	>1000	mg/l	Tetrahymen pyriformis		
Water solubility:							Product floats on the water surface.

2-ethylhexyl nitrate							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	2	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	0,83	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC50	72h	>2,53	mg/l	Pseudokirchneriell a subcapitata		
12.2. Persistence and degradability:	DOC	28d	0	%	activated sludge	OECD 310 (Ready Biodegradability - CO2 in sealed vessels (Headspace Test))	Not biodegradable



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12.3. Bioaccumulative potential:	Log Pow		5,24			OECD 117 (Partition Coefficient (n- octanol/water) - HPLC method)	High
12.3. Bioaccumulative potential:	BCF		1332				
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC50	3h	>1000	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	

## **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

#### For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be

allocated under certain circumstances. (2014/955/EU)

13 07 03 other fuels (including mixtures)

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. suitable incineration plant.

## For contaminated packing material

Pay attention to local and national official regulations.

Empty container completely.

Uncontaminated packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

## **SECTION 14: Transport information**

3082

## **General statements**

## Transport by road/by rail (ADR/RID)

14.1. UN number or ID number:

14.2. UN proper shipping name:

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-ETHYLHEXYL NITRATE)

14.3. Transport hazard class(es):
9
14.4. Packing group:
III

14.5. Environmental hazards: environmentally hazardous

Tunnel restriction code:

Classification code:

M6

LQ: 5 L
Transport category: 3

Transport by sea (IMDG-code)

14.1. UN number or ID number: 3082

14.2. UN proper shipping name:

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-ETHYLHEXYL NITRATE)

14.3. Transport hazard class(es):
9
14.4. Packing group:
III

14.5. Environmental hazards: environmentally hazardous

Marine Pollutant: Yes EmS: F-A, S-F







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Transport by air (IATA)

14.1. UN number or ID number:

3082

14.2. UN proper shipping name:

UN 3082 Environmentally hazardous substance, liquid, n.o.s. (2-ETHYLHEXYL NITRATE)

14.3. Transport hazard class(es):
9
14.4. Packing group:
III

14.5. Environmental hazards: environmentally hazardous



Persons employed in transporting dangerous goods must be trained. All persons involved in transporting must observe safety regulations.

Precautions must be taken to prevent damage.

## 14.7. Maritime transport in bulk according to IMO instruments

Freighted as packaged goods rather than in bulk, therefore not applicable.

Minimum amount regulations have not been taken into account.

Danger code and packing code on request.

Comply with special provisions.

## **SECTION 15: Regulatory information**

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

Observe restrictions:

Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be considered

according to storage, handling etc.):

Hazard categories	Notes to Annex I	Qualifying quantity (tonnes) of	Qualifying quantity (tonnes) of
nazaru categories	Notes to Affrex I	, , , ,	, , , ,
		dangerous substances as	dangerous substances as
		referred to in Article 3(10) for the	referred to in Article 3(10) for the
		application of - Lower-tier	application of - Upper-tier
		requirements	requirements
E2		200	500

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2010/75/EU (VOC):

~ 95,2 %

National requirements/regulations on safety and health protection must be applied when using work equipment.

#### 15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

## **SECTION 16: Other information**

Revised sections:

9, 15

Employee training in handling dangerous goods is required.

These details refer to the product as it is delivered.

Employee instruction/training in handling hazardous materials is required.

# Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Asp. Tox. 1, H304	Classification according to calculation procedure.
Aquatic Chronic 2, H411	Classification according to calculation procedure.





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The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H332 Harmful if inhaled.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

EUH066 Repeated exposure may cause skin dryness or cracking.

EUH044 Risk of explosion if heated under confinement.

Asp. Tox. — Aspiration hazard

Aquatic Chronic — Hazardous to the aquatic environment - chronic

Acute Tox. — Acute toxicity - oral Acute Tox. — Acute toxicity - dermal

Acute Tox. — Acute toxicity - inhalation

Acute Tox. — Acute toxicity - Inhalation
Aquatic Acute — Hazardous to the aquatic environment - acute

## Key literature references and sources for data:

Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.

Guidelines for the preparation of safety data sheets as amended (ECHA).

Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).

Safety data sheets for the constituent substances.

ECHA Homepage - Information about chemicals.

GESTIS Substance Database (Germany).

German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).

EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as amended.

National Lists of Occupational Exposure Limits for each country as amended.

Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

## Any abbreviations and acronyms used in this document:

acc., acc. to according, according to

ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)

AOX Adsorbable organic halogen compounds

approx. approximately

Art., Art. no. Article number

ASTM ASTM International (American Society for Testing and Materials)

ATE Acute Toxicity Estimate

BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)

BCF Bioconcentration factor

BSEF The International Bromine Council

bw body weight

CAS Chemical Abstracts Service

CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)

CMR carcinogenic, mutagenic, reproductive toxic

DMEL Derived Minimum Effect Level
DNEL Derived No Effect Level
DOC Dissolved organic carbon

dw dry weight

e.g. for example (abbreviation of Latin 'exempli gratia'), for instance

EbCx, EyCx, EbLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass (algae, plants)

EC European Community
ECHA European Chemicals Agency

ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect

EEC European Economic Community

EINECS European Inventory of Existing Commercial Chemical Substances

ELINCS European List of Notified Chemical Substances

EN European Norms



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EPA United States Environmental Protection Agency (United States of America)

ErCx, EμCx, ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)

etc. et cetera

EU European Union

EVAL Ethylene-vinyl alcohol copolymer

Fax. Fax number gen. general

GHS Globally Harmonized System of Classification and Labelling of Chemicals

GWP Global warming potential

Koc Adsorption coefficient of organic carbon in the soil

Kow octanol-water partition coefficient

IARC International Agency for Research on Cancer IATA International Air Transport Association IBC (Code) International Bulk Chemical (Code)

IMDG-code International Maritime Code for Dangerous Goods

incl. including, inclusive

IUCLID International Uniform Chemical Information Database

IUPAC International Union for Pure Applied Chemistry LC50 Lethal Concentration to 50 % of a test population

LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)

Log Koc Logarithm of adsorption coefficient of organic carbon in the soil Log Kow, Log Pow Logarithm of octanol-water partition coefficient

LQ Limited Quantities

MARPOL International Convention for the Prevention of Marine Pollution from Ships

n.a. not applicable
n.av. not available
n.c. not checked
n.d.a. no data available

NIOSH National Institute for Occupational Safety and Health (USA)

NLP No-longer-Polymer

NOEC, NOEL No Observed Effect Concentration/Level

OECD Organisation for Economic Co-operation and Development

org. organic

OSHA Occupational Safety and Health Administration (USA)

PBT persistent, bioaccumulative and toxic

PE Polyethylene

PNEC Predicted No Effect Concentration

ppm parts per million PVC Polyvinylchloride

REACHRegistration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration,

Evaluation, Authorisation and Restriction of Chemicals)

REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List

Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.

RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)

SVHC Substances of Very High Concern

Tel. Telephone

TOC Total organic carbon

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge. No responsibility.

These statements were made by:

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