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

Revision date / version: 06.11.2023 / 0017

Replacing version dated / version: 18.09.2022 / 0016

Valid from: 06.11.2023 PDF print date: 08.11.2023

E10 Additive

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

1.1 Product identifier

E10 Additive

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

Fuel additive

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) 0731-1420-0 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:

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

Eye Dam. 1 H318-Causes serious eye damage.

Asp. Tox. 1 H304-May be fatal if swallowed and enters airways. Aquatic Chronic 3 H412-Harmful to aquatic life with long lasting effects.

2.2 Label elements

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



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Danger

H318-Causes serious eye damage. H304-May be fatal if swallowed and enters airways. H412-Harmful 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. P280-Wear eye protection / face protection.

P301+P310-IF SWALLOWED: Immediately call a POISON CENTER / doctor. P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P331-Do NOT induce vomiting. P405-Store locked up.

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

EUH066-Repeated exposure may cause skin dryness or cracking.

EUH208-Contains Maleic anhydride. May produce an allergic reaction.

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics

Hydrocarbons, C10, aromatics, >1% naphthalene

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

Bornan-2-one

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

Bornan-2-one	
Registration number (REACH)	01-2119966156-31-XXXX
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	200-945-0
CAS	76-22-2
content %	1-5



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Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Flam. Sol. 2, H228 Acute Tox. 4, H332
	Skin Irrit. 2, H315
	Eye Dam. 1, H318
	STOT SE 2, H371 (lung) (as inhalation)
	Aquatic Chronic 2, H411

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	
Registration number (REACH)	01-2119456620-43-XXXX
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	926-141-6
CAS	
content %	1-5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	EUH066
	Asp. Tox. 1, H304

Hydrocarbons, C10, aromatics, >1% naphthalene	
Registration number (REACH)	01-2119463588-24-XXXX
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	919-284-0
CAS	(64742-94-5)
content %	1-5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	EUH066
	Carc. 2, H351
	STOT SE 3, H336
	Asp. Tox. 1, H304
	Aquatic Chronic 2, H411

Naphthalene	Substance for which an EU exposure limit value applies.
Registration number (REACH)	
Index	601-052-00-2
EINECS, ELINCS, NLP, REACH-IT List-No.	202-049-5
CAS	91-20-3
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 4, H302
	Carc. 2, H351
	Aquatic Acute 1, H400 (M=1)
	Aguatic Chronic 1, H410 (M=1)

Maleic anhydride	
Registration number (REACH)	
Index	607-096-00-9
EINECS, ELINCS, NLP, REACH-IT List-No.	203-571-6
CAS	108-31-6
content %	<0,001
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	EUH071
	Acute Tox. 4, H302
	Skin Corr. 1B, H314
	Eye Dam. 1, H318
	Resp. Sens. 1, H334
	Skin Sens. 1A, H317
	STOT RE 1, H372 (respiratory system) (as inhalation)
Specific Concentration Limits and ATE	Skin Sens. 1A, H317: >=0,001 %

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. A classification for the mixture with Carc. 2, H351 is not required as the naphthalene content in the product is < 1%. There are no other ingredients with this classification.



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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.

If the person is unconscious, place in a stable side position and consult a doctor.

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 - call doctor immediately, have Data Sheet available.

Protect uninjured eye.

Follow-up examination by an ophthalmologist.

Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting - give copious water to drink. Consult doctor immediately.

Danger of aspiration.

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

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.

The following may occur:

Irritation of the eyes

Product removes fat.

Dermatitis (skin inflammation)

Ingestion:

Oedema of the lungs

Lung damage

Chemical pneumonitis (condition similar to pneumonia)

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

4.3 Indication of any immediate medical attention and special treatment needed

Gastric lavage (stomach washing) only under endotracheal intubation.

Subsequent observation for pneumonia and pulmonary oedema.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water jet spray / alcohol resistant 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

Hydrocarbons

Toxic pyrolysis products.

Explosive vapour/air or gas/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



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Full protection, if necessary. Cool container at risk with water.

Dispose of contaminated extinction water according to official regulations.

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 inhalation, and 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 from entering drainage system.

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

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) 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.

Keep away from sources of ignition - Do not smoke.

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.

Solvent resistant floor

Do not store with oxidizing agents.

Store in a well ventilated place.

Protect from direct sunlight and warming.

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



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8.1 Control parametersWorkplace exposure limit (WEL) of the total hydrocarbon solvent content of the mixture (RCP method according to EH40): 800 mg/m3

Chemical Name	Hydrocarbons, C1	0-C13, n-alkanes, isoalkanes, cyclic	cs, <2% aromatics	
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 information: (C	EL acc. to RCP-method,
			paragraphs 84-87, EH4	10)
Chemical Name	Bornan-2-one			
	DUITIAIT-2-UTIE	WEL STELL 2 nnm (10 mg/m2)		
WEL-TWA: 2 ppm (12 mg/m3) Monitoring procedures:		WEL-STEL: 3 ppm (19 mg/m3))	
BMGV:	-		Other information:	
DIVIGV			Other information	
Chemical Name	Hydrocarbons, C1	1-C14, n-alkanes, isoalkanes, cyclic	cs, <2% aromatics	
WEL-TWA: 1200 mg/m3 (>=C7 no	rmal and branched	WEL-STEL:		
chain alkanes)				
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 information:	
Chemical Name	Hvdrocarbons, C1	0. aromatics. >1% naphthalene		
		0, aromatics, >1% naphthalene WEL-STEL:		
WEL-TWA: 500 mg/m3 (Aromatics	s)	WEL-STEL:	03 571)	
	- [
WEL-TWA: 500 mg/m3 (Aromatics	s) - [- [WEL-STEL: Draeger - Hydrocarbons 0,1%/c (81		
WEL-TWA: 500 mg/m3 (Aromatics	s) - [- [WEL-STEL: Draeger - Hydrocarbons 0,1%/c (81 Draeger - Hydrocarbons 2/a (81 03		
WEL-TWA: 500 mg/m3 (Aromatics Monitoring procedures: BMGV:	- [- [- (WEL-STEL: Draeger - Hydrocarbons 0,1%/c (81 Draeger - Hydrocarbons 2/a (81 03	581)	
WEL-TWA: 500 mg/m3 (Aromatics Monitoring procedures: BMGV: BMGV:	s) - [- [- [- (WEL-STEL: Draeger - Hydrocarbons 0,1%/c (81 Draeger - Hydrocarbons 2/a (81 03 Compur - KITA-187 S (551 174)	581)	
WEL-TWA: 500 mg/m3 (Aromatics Monitoring procedures: BMGV: BMGV: Chemical Name WEL-TWA: 500 mg/m3 (Aromatics	s) - [- [- [- (WEL-STEL: Draeger - Hydrocarbons 0,1%/c (81 Draeger - Hydrocarbons 2/a (81 03	581)	
WEL-TWA: 500 mg/m3 (Aromatics Monitoring procedures: BMGV: BMGV: Chemical Name WEL-TWA: 500 mg/m3 (Aromatics (50 mg/m3) (EU)	Naphthalene	WEL-STEL: Draeger - Hydrocarbons 0,1%/c (81 Draeger - Hydrocarbons 2/a (81 03 Compur - KITA-187 S (551 174) WEL-STEL:	Other information:	
WEL-TWA: 500 mg/m3 (Aromatics Monitoring procedures: BMGV: BMGV: Chemical Name WEL-TWA: 500 mg/m3 (Aromatics	Naphthalene s) (WEL), 10 ppm	WEL-STEL: Draeger - Hydrocarbons 0,1%/c (81 Draeger - Hydrocarbons 2/a (81 03 Compur - KITA-187 S (551 174) WEL-STEL: Compur - KITA-153 U(C) (551 182)	Other information:	
WEL-TWA: 500 mg/m3 (Aromatics Monitoring procedures: BMGV: BMGV: Chemical Name WEL-TWA: 500 mg/m3 (Aromatics (50 mg/m3) (EU)	Naphthalene s) (WEL), 10 ppm	WEL-STEL: Draeger - Hydrocarbons 0,1%/c (81 Draeger - Hydrocarbons 2/a (81 03 Compur - KITA-187 S (551 174) WEL-STEL: Compur - KITA-153 U(C) (551 182) NIOSH 5506 (POLYNUCLEAR ARG	Other information:	 DNS by HPLC) - 1998
WEL-TWA: 500 mg/m3 (Aromatics Monitoring procedures: BMGV: BMGV: Chemical Name WEL-TWA: 500 mg/m3 (Aromatics (50 mg/m3) (EU)	Naphthalene s) (WEL), 10 ppm - (- 1 - 1	WEL-STEL: Draeger - Hydrocarbons 0,1%/c (81 Draeger - Hydrocarbons 2/a (81 03 Compur - KITA-187 S (551 174) WEL-STEL: Compur - KITA-153 U(C) (551 182) NIOSH 5506 (POLYNUCLEAR ARC	Other information:	 DNS by HPLC) - 1998
WEL-TWA: 500 mg/m3 (Aromatics Monitoring procedures: BMGV: Chemical Name WEL-TWA: 500 mg/m3 (Aromatics (50 mg/m3) (EU) Monitoring procedures:	Naphthalene s) (WEL), 10 ppm - (- 1 - 1	WEL-STEL: Draeger - Hydrocarbons 0,1%/c (81 Draeger - Hydrocarbons 2/a (81 03 Compur - KITA-187 S (551 174) WEL-STEL: Compur - KITA-153 U(C) (551 182) NIOSH 5506 (POLYNUCLEAR ARG	Other information: Other information: OMATIC HYDROCARBO	 DNS by HPLC) - 1998 DNS by GC) - 1994
WEL-TWA: 500 mg/m3 (Aromatics Monitoring procedures: BMGV: BMGV: Chemical Name WEL-TWA: 500 mg/m3 (Aromatics (50 mg/m3) (EU) Monitoring procedures: BMGV:	Naphthalene s) (WEL), 10 ppm - (- 1 - 1 - (WEL-STEL: Draeger - Hydrocarbons 0,1%/c (81 Draeger - Hydrocarbons 2/a (81 03 Compur - KITA-187 S (551 174) WEL-STEL: Compur - KITA-153 U(C) (551 182) NIOSH 5506 (POLYNUCLEAR ARC	Other information:	 DNS by HPLC) - 1998 DNS by GC) - 1994
WEL-TWA: 500 mg/m3 (Aromatics Monitoring procedures: BMGV: BMGV: 500 mg/m3 (Aromatics (50 mg/m3) (EU) Monitoring procedures: BMGV: BMGV:	Naphthalene s) (WEL), 10 ppm - (- 1 - 1	WEL-STEL: Draeger - Hydrocarbons 0,1%/c (81 Draeger - Hydrocarbons 2/a (81 03 Compur - KITA-187 S (551 174) WEL-STEL: Compur - KITA-153 U(C) (551 182) NIOSH 5506 (POLYNUCLEAR ARC NIOSH 35 (Napthalene) - 1982	Other information: Other information: OMATIC HYDROCARBO	 DNS by HPLC) - 1998 DNS by GC) - 1994
WEL-TWA: 500 mg/m3 (Aromatics Monitoring procedures: BMGV: BMGV: Chemical Name WEL-TWA: 500 mg/m3 (Aromatics (50 mg/m3) (EU) Monitoring procedures: BMGV: BMGV: BMGV: Chemical Name WEL-TWA: 1 mg/m3	Naphthalene s) (WEL), 10 ppm - (- 1 - 1 - (WEL-STEL: Draeger - Hydrocarbons 0,1%/c (81 Draeger - Hydrocarbons 2/a (81 03 Compur - KITA-187 S (551 174) WEL-STEL: Compur - KITA-153 U(C) (551 182) NIOSH 5506 (POLYNUCLEAR ARC	Other information: Other information: OMATIC HYDROCARBO	 DNS by HPLC) - 1998 DNS by GC) - 1994
WEL-TWA: 500 mg/m3 (Aromatics Monitoring procedures: BMGV: BMGV: 500 mg/m3 (Aromatics (50 mg/m3) (EU) Monitoring procedures: BMGV: BMGV:	Naphthalene () (WEL), 10 ppm - () - () - () - () - () - () - () - (WEL-STEL: Draeger - Hydrocarbons 0,1%/c (81 Draeger - Hydrocarbons 2/a (81 03 Compur - KITA-187 S (551 174) WEL-STEL: Compur - KITA-153 U(C) (551 182) NIOSH 5506 (POLYNUCLEAR ARC NIOSH 35 (Napthalene) - 1982	Other information: Other information: OMATIC HYDROCARBO	 DNS by HPLC) - 1998 DNS by GC) - 1994

Area of application Exposure route / Environmental		Effect on health	Descriptor	Value	Unit	Note
	compartment					
	Environment - freshwater		PNEC	1,71	μg/l	
	Environment - marine		PNEC	0,171	μg/l	
	Environment - sediment, freshwater		PNEC	0,139	mg/kg	
	Environment - sediment, marine		PNEC	0,017	mg/kg	
	Environment - soil		PNEC	0,013	mg/kg	
	Environment - sewage treatment plant		PNEC	1	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	1,71	μg/l	



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Consumer	Human - inhalation	Long term, systemic effects	DNEL	4,348	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	5	mg/kg bw/d	
Consumer	Human - oral	Long term, systemic effects	DNEL	5	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	17,632	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	10	mg/kg bw/d	

Hydrocarbons, C10, aron	natics, >1% naphthalene					
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Consumer	Human - dermal	Long term, systemic effects	DNEL	7,5	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	32	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	7,5	mg/kg bw/day	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	12,5	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	151	mg/m3	

Naphthalene						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	2,4	μg/l	
	Environment - marine		PNEC	0,24	μg/l	
	Environment - sewage treatment plant		PNEC	2,9	mg/l	
	Environment - sediment, freshwater		PNEC	0,0672	mg/kg dry weight	
	Environment - sediment, marine		PNEC	0,0672	mg/kg dry weight	
	Environment - soil		PNEC	0,0533	mg/kg dry weight	
	Environment - sporadic (intermittent) release		PNEC	0,02	mg/l	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	3,57	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	25	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	25	mg/m3	

Maleic anhydride						
Area of application	Exposure route /	Effect on health	Effect on health Descriptor		Unit	Note
Environmental						
	compartment					
	Environment - freshwater		PNEC	0,038	mg/l	
	Environment - marine		PNEC	0,0038	mg/l	
	Environment - water, sporadic (intermittent)		PNEC	0,379	mg/l	
	release Environment - sediment, freshwater		PNEC	0,296	mg/kg	
	Environment - sediment, marine		PNEC	0,0296	mg/kg	



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	Environment - soil		PNEC	0,037	mg/kg
	Environment - sewage treatment plant		PNEC	44,6	mg/l
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	0,081	mg/m3
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	0,2	mg/m3
Workers / employees	Human - inhalation	Long term, local effects	DNEL	0,4	mg/m3
Workers / employees	Human - inhalation	Short term, local effects	DNEL	0,8	mg/m3
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	0,04	mg/kg bw/d
Workers / employees	Human - dermal	Long term, local effects	DNEL	0,04	mg/kg bw/d
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	0,04	mg/kg bw/d
Workers / employees	Human - dermal	Short term, local effects	DNEL	0,04	mg/kg bw/d

- 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.

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 with side protection (EN 166).

Skin protection - Hand protection:

Solvent 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:

0,5

Permeation time (penetration time) in minutes:

480

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



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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

At high concentrations:

Respiratory protection appliance (insulation device) (e.g. EN 137 or EN 138)

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

Not applicable

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 manufacturer.

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 Colour: Light brown 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: Flammable

Lower explosion limit: 0,7 Vol-% (Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics,

<2% aromatics)

6 Vol-% (Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, Upper explosion limit:

<2% aromatics)

Flash point: >63 °C

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

Mixture is non-soluble (in water). Kinematic viscosity:

<7 mm2/s (40°C)

Insoluble

Partition coefficient n-octanol/water (log value): Does not apply to mixtures.

Vapour pressure: There is no information available on this parameter.

Density and/or relative density: 0,825 g/ml (15°C)

Relative vapour density: There is no information available on this parameter.

Particle characteristics: Does not apply to liquids.

9.2 Other information

Explosives: There is no information available on this parameter. Oxidising liquids:

SECTION 10: Stability and reactivity

10.1 Reactivity

Solubility:

The product has not been tested.

10.2 Chemical stability

Stable with proper storage and handling.



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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).

E10 Additive		T				
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin						n.d.a.
sensitisation:						
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity -						n.d.a.
single exposure (STOT-SE):						
Specific target organ toxicity -						n.d.a.
repeated exposure (STOT-RE):						
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
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,
					Erythrocyte	Analogous
					Micronucleus Test)	conclusion
Germ cell mutagenicity:				Salmonella	OECD 471 (Bacterial	Negative
				typhimurium	Reverse Mutation Test)	



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Carcinogenicity:	OECD 453 (Combined	Negative,
	Chronic	Analogous
	Toxicity/Carcinogenicity	conclusion
	Studies)	
Reproductive toxicity:	OECD 414 (Prenatal	Negative,
	Developmental Toxicity	Analogous
		conclusion
Specific target organ toxicity -	OECD 408 (Repeated	Negative,
repeated exposure (STOT-RE):	Dose 90-Day Oral	Analogous
	Toxicity Study in	conclusion
	Rodents)	
Aspiration hazard:		Yes
Symptoms:		unconsciousness
		, headaches,
		dizziness,
		mucous
		membrane
		irritation

Bornan-2-one Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 423 (Acute Oral	
					Toxicity - Acute Toxic	
					Class Method)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute	
					Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>10000	mg/m3	Rat	OECD 403 (Acute	Dust(~2h)
					Inhalation Toxicity)	
Skin corrosion/irritation:					OECD 439 (In Vitro Skin	Skin Irrit. 2
					Irritation -	
					Reconstructed Human	
					Epidermis Test Method)	
Serious eye damage/irritation:					OECD 437 (Bovine	Eye Dam. 1
, s					Corneal Opacity +	
					Permeability Test for	
					Identif. Ocular Corros. +	
					Severe Irritants)	
Respiratory or skin					,	Not sensitizising
sensitisation:						
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro	Negative
5 ,					Mammalian Cell Gene	
					Mutation Test)	
Germ cell mutagenicity:				Mouse	OECD 475 (Mammalian	Negative
5 ,					Bone Marrow	
					Chromosome	
					Aberration Test)	
Specific target organ toxicity -					,	STOT SE 2
single exposure (STOT-SE),						
inhalative:						

Hydrocarbons, C11-C14, n-alka	anes, isoalkan	es, cyclics, <	2% aromatics			
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>5000	mg/m3/8h	Rat	OECD 403 (Acute Inhalation Toxicity)	Vapours
Skin corrosion/irritation:					OECD 404 (Acute Dermal Irritation/Corrosion)	Analogous conclusion, Drying of the skin., Dermatitis (skin inflammation)



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Serious eye damage/irritation:					OECD 405 (Acute Eye Irritation/Corrosion)	Analogous conclusion, Slightly irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact), Analogous conclusion
Germ cell mutagenicity:				Mouse	in vivo	Negative
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative, Analogous conclusion
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative, Analogous conclusion
Carcinogenicity:					OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Analogous conclusion, Negative
Reproductive toxicity:					OECD 414 (Prenatal Developmental Toxicity Study)	Analogous conclusion, Negative
Specific target organ toxicity - single exposure (STOT-SE):						Analogous conclusion, No indications of such an effect.
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	>=1000	mg/kg bw/d	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
Aspiration hazard:						Yes
Symptoms:						drying of the skin., headaches, fatigue, dizziness, nausea, diarrhoea, vomiting

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral	
					Toxicity)	
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 420 (Acute Oral	
					toxicity - Fixe Dose	
					Procedure)	
Acute toxicity, by oral route:	LD50	6318	mg/kg	Rat	OECD 401 (Acute Oral	
					Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit	OECD 402 (Acute	Analogous
					Dermal Toxicity)	conclusion
Acute toxicity, by inhalation:	LC50	>4688	mg/m3	Rat	OECD 403 (Acute	
					Inhalation Toxicity)	
Skin corrosion/irritation:						Repeated
						exposure may
						cause skin
						dryness or
						cracking.
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute	Not irritant,
					Dermal	Analogous
					Irritation/Corrosion)	conclusion



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Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant, Analogous
						conclusion
Respiratory or skin				Guinea pig	OECD 406 (Skin	No (skin
sensitisation:					Sensitisation)	contact),
					,	Analogous
						conclusion
Germ cell mutagenicity:				Mammalian	OECD 479 (Genetic	Negative,
g,-					Toxicology - In Vitro	Analogous
					Sister Chromatid	conclusion
					Exchange assay in	CONCIUSION
					Mammalian Cells)	
Germ cell mutagenicity:				Salmonella	OECD 471 (Bacterial	Negative,
Germ cen mutagemony.					Reverse Mutation Test)	
				typhimurium	Reverse Mutation Test)	Analogous
O					OFOD 470 (la Vita	conclusion
Germ cell mutagenicity:					OECD 473 (In Vitro	Negative,
					Mammalian	Analogous
					Chromosome	conclusionChine
					Aberration Test)	e hamster
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian	Negative
-					Erythrocyte	
					Micronucleus Test)	
Germ cell mutagenicity:				Mammalian	OECD 475 (Mammalian	Negative,
					Bone Marrow	Analogous
					Chromosome	conclusion
					Aberration Test)	COLICIUSION
Depreductive toxicity	NOAEL	>450	ma/ka	Rat	OECD 415 (One-	Negative,
Reproductive toxicity	NOAEL	>450	mg/kg	Kal		
(Developmental toxicity):					Generation	Analogous
					Reproduction Toxicity	conclusion
					Study)	
Reproductive toxicity (Effects				Rat	OECD 415 (One-	Negative,
on fertility):					Generation	Analogous
					Reproduction Toxicity	conclusion
					Study)	
Reproductive toxicity:					OECD 414 (Prenatal	Negative,
•					Developmental Toxicity	Analogous
					Study)	conclusion
Reproductive toxicity:					OECD 416 (Two-	Negative,
. toproductive texticity.					generation	Analogous
					Reproduction Toxicity	conclusion
					Study)	CONCIUSION
Specific target organ toxicity -					Otddy)	Vapours may
single exposure (STOT-SE):						cause
single exposure (STOT-SE).						
						drowsiness and
						dizziness.,
						STOT SE 3,
						H336
Specific target organ toxicity -					OECD 452 (Chronic	Negative,
repeated exposure (STOT-RE):					Toxicity Studies)	Analogous
<u> </u>						conclusion
Aspiration hazard:						Yes
Specific target organ toxicity -	NOAEL	750	mg/kg	Rat	OECD 408 (Repeated	Negative,
repeated exposure (STOT-RE),					Dose 90-Day Oral	Analogous
oral:					Toxicity Study in	conclusion
					Rodents)	
Symptoms:						drowsiness,
-,p.to						headaches,
						drowsiness,
Considir toward access to daily	NOATI	405		Det	OFCD 444 (October 1997)	dizziness
Specific target organ toxicity -	NOAEL	495	mg/kg	Rat	OECD 411 (Subchronic	Negative,
repeated exposure (STOT-RE),					Dermal Toxicity - 90-day	Analogous
dermal:					Study)	conclusion



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Specific target organ toxicity -	NOAEL	1000	mg/m3	Rat	OECD 413 (Subchronic	Negative,
repeated exposure (STOT-RE),					Inhalation Toxicity - 90-	Analogous
inhalat.:					Day Study)	conclusion

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	490	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2500	mg/kg	Rat		
Acute toxicity, by inhalation:	LC50	>110	mg/l/4h	Rat		Vapours
Acute toxicity, by inhalation:	LD50	>0,4	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Vapours
Respiratory or skin sensitisation:				Guinea pig		No (skin contact
Reproductive toxicity:	NOAEL	120	mg/kg	Rabbit	OECD 414 (Prenatal Developmental Toxicity Study)	Female
Reproductive toxicity:	LOAEL	50	mg/kg	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Female
Reproductive toxicity:	LOAEL	450	mg/kg	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Female
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	LOAEL	400	mg/kg	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
Specific target organ toxicity - repeated exposure (STOT-RE), dermal:	NOAEL	1000	mg/kg	Rat	OECD 411 (Subchronic Dermal Toxicity - 90-day Study)	
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	LOAEL	0,011	mg/l	Rat	OECD 413 (Subchronic Inhalation Toxicity - 90- Day Study)	Vapours
Symptoms:						lack of appetite, ataxia, breathing difficulties, unconsciousnes, diarrhoea, cornea opacity, headaches, cramps, gastrointestinal disturbances, mucous membrane irritation, dizziness, nausea and vomiting., sweating, Reddening, eyes, reddened

Maleic anhydride										
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes				
Acute toxicity, by oral route:	LD50	1090	mg/kg	Rat	OECD 401 (Acute Oral					
					Toxicity)					
Acute toxicity, by dermal route:	LD50	2620	mg/kg	Rabbit	OECD 402 (Acute					
					Dermal Toxicity)					
Acute toxicity, by inhalation:	LC50	>4,35	mg/l/4h	Mouse						
Skin corrosion/irritation:				Human being		Corrosive				
Skin corrosion/irritation:				Rat		Corrosive				
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye	Eye Dam. 1				
					Irritation/Corrosion)					



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Respiratory or skin				Guinea pig	OECD 406 (Skin	Sensitising (skin
sensitisation:					Sensitisation)	contact)
Respiratory or skin				Rat		Sensitising
sensitisation:						(inhalation)
Germ cell mutagenicity:					bacterial	References,
Germ cell mutagenicity:					OECD 471 (Bacterial	Negative Negative
Germ cen mutagementy.					Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Rat	OECD 475 (Mammalian	Negative
.					Bone Marrow	
					Chromosome	
					Aberration Test)	
Carcinogenicity:	NOAEL	>100	mg/kg bw/d	Rat		oral
Reproductive toxicity:	NOAEC	650	mg/kg bw/d	Rat		
Reproductive toxicity:	NOAEL	55	mg/kg	Rat	OECD 416 (Two-	
					generation	
					Reproduction Toxicity	
					Study)	
Symptoms:						asthmatic
						symptoms,
						breathing
						difficulties,
						respiratory
						distress, burning
						of the
						membranes of
						the nose and
						throat, blisters,
						coughing,
						headaches,
						gastrointestinal
						disturbances,
						mucous
						membrane
						irritation,
						watering eyes,
On a sific to make the latest to the latest	NOAE	40	" / "	D-4	0500 450 (0)	nausea
Specific target organ toxicity -	NOAEL	10	mg/kg/d	Rat	OECD 452 (Chronic	
repeated exposure (STOT-RE), oral:					Toxicity Studies)	
Specific target organ toxicity -	NOAEC	3,3	mg/m3	Rat	OECD 413 (Subchronic	Vapours
repeated exposure (STOT-RE),					Inhalation Toxicity - 90-	
inhalat.:					Day Study)	

11.2. Information on other hazards

E10 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-alka	ines, isoalkan	es, cyclics, <2% a	aromatics			
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes



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E10 Additive

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).

E10 Additive Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	Liiupoiiit	111110	Value	Oint	Organism	T COL III CUI OU	n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and							Isolate as much
degradability:							as possible with
acgradability.							an oil separator.
12.3. Bioaccumulative							n.d.a.
potential:							II.u.a.
							n d o
12.4. Mobility in soil: 12.5. Results of PBT							n.d.a.
and vPvB assessment							n.d.a.
							Dana and analis
12.6. Endocrine							Does not apply
disrupting properties:							to mixtures.
12.7. Other adverse							No information
effects:							available on
							other adverse
							effects on the
							environment.
Other information:							According to the
							recipe, contains
							no AOX.

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		



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Water solubility:			Product floats on
			the water
			surface.

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	33,25	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	LC50	48h	4,23	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	1,71	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	0,032	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	77	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	
12.3. Bioaccumulative potential:	Log Pow		2,414				
Toxicity to bacteria:	EC50	3h	>100	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	NOELR	28d	0,17	mg/l	Oncorhynchus mykiss	QSAR	
12.1. Toxicity to fish:	LL50	96h	>1000	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	NOELR	21d	1,22	mg/l	Daphnia magna	QSÁR	
12.1. Toxicity to daphnia:	EL50	48h	>1000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	NOELR	72h	1000	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	69	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		6-8				High
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Water solubility:							Insoluble

Hydrocarbons, C10, aromatics, >1% naphthalene



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Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LL50	96h	2-5	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to daphnia:	EC50	48h	3-10	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	0,48	mg/l	Daphnia magna		Analogous conclusion
12.1. Toxicity to algae:	EL50	72h	11	mg/l	Pseudokirchneriell a subcapitata		
12.1. Toxicity to algae:	NOELR	72h	2,5	mg/l	Pseudokirchneriell a subcapitata		
12.2. Persistence and degradability:		28d	58	%	activated sludge	OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable, Analogous conclusion
12.3. Bioaccumulative potential:	Log Pow		2,8-6,5				High
12.3. Bioaccumulative potential:	BCF		99-5780				High
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Naphthalene							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	1,99	mg/l	Pimephales promelas		Does not conform with EU classification.
12.1. Toxicity to fish:	LC50	96h	0,51	mg/l			
12.1. Toxicity to fish:	LC50	96h	0,11	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to daphnia:	NOEC/NOEL	>60d	0,6	mg/l	Daphnia pulex		
12.1. Toxicity to daphnia:	EC50	48h	1,6-24,1	mg/l	Daphnia magna		
12.1. Toxicity to algae:	LC50	4h	2,96	mg/l	Selenastrum capricornutum		
12.1. Toxicity to algae:	ErC50	72h	0,4	mg/l	Skeletonema costatum		
12.2. Persistence and degradability:		28d	2	%			Not readily biodegradable
12.3. Bioaccumulative potential:	BCF	28d	40-300				Lowfish
12.4. Mobility in soil:	Koc		817				
12.4. Mobility in soil:	Koc		240- 1300				
Other information:	BOD5		0	%			
Other information:	COD		22	%			
Other information:	Log Pow		3,3				

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	75	mg/l	Oncorhynchus mykiss		EPA-660/3-75- 009
12.1. Toxicity to fish:	LC50	96h	75	mg/l	Lepomis macrochirus		EPA-660/3-75- 009
12.1. Toxicity to daphnia: 12.1. Toxicity to daphnia:	NOEC/NOEL EC50	21d 48h	10 42,81	mg/l mg/l	Daphnia magna Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	



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12.1. Toxicity to algae:	EC50	72h	74,32	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition	
12.1. Toxicity to algae:	EC10	72h	11,8	mg/l	Pseudokirchneriell a subcapitata	Test) OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	EC50	72h	29	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	EC10	72h	23	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		7d	98	%		OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	Hydrolysis
12.3. Bioaccumulative potential:	Log Pow		-2,61 - (- 2,16)			- Correcting 1 Cosy	Not to be expected
12.4. Mobility in soil:	Koc		1				Not to be expected
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC10	18h	44,6	mg/l	Pseudomonas putida	IUCLID Chem. Data Sheet (ESIS)	References
Other information:	Log Pow		1,62		•	,	

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)

07 07 04 other organic solvents, washing liquids and mother liquors

14 06 03 other solvents and solvent mixtures

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

Implement substance recycling.

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

General statements

Transport by road/by rail (ADR/RID)

14.1. UN number or ID number:

14.2. UN proper shipping name: Not applicable

14.3. Transport hazard class(es):

14.4. Packing group:

14.5. Environmental hazards:

Tunnel restriction code:

Not applicable

Not applicable Not applicable

Not applicable

Not applicable



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Classification code:

LQ:
Not applicable
Transport category:
Not applicable

Transport by sea (IMDG-code)

14.1. UN number or ID number:14.2. UN proper shipping name:

Not applicable

14.3. Transport hazard class(es):Not applicable14.4. Packing group:Not applicable14.5. Environmental hazards:Not applicableMarine Pollutant:Not applicableEmS:Not applicable

Transport by air (IATA)

14.1. UN number or ID number:

14.2. UN proper shipping name:

Not applicable

14.3. Transport hazard class(es):Not applicable14.4. Packing group:Not applicable14.5. Environmental hazards:Not applicable

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

Non-dangerous material according to Transport Regulations.

SECTION 15: Regulatory information

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

Observe restrictions

Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)! Comply with trade association/occupational health regulations.

Directive 2010/75/EU (VOC):

~ 90,5 %

Not applicable

Not applicable

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:

3

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	Evaluation method used		
(EC) No. 1272/2008 (CLP)			
Eye Dam. 1, H318	Classification according to calculation procedure.		
Asp. Tox. 1, H304	Classification according to calculation procedure.		
Aquatic Chronic 3, H412	Classification according to calculation procedure.		

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents. H372 Causes damage to organs through prolonged or repeated exposure by inhalation.

H371 May cause damage to organs by inhalation.

H317 May cause an allergic skin reaction.



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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.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

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.

H228 Flammable solid.

EUH066 Repeated exposure may cause skin dryness or cracking.

EUH071 Corrosive to the respiratory tract.

Eye Dam. — Serious eye damage Asp. Tox. — Aspiration hazard

Aquatic Chronic — Hazardous to the aquatic environment - chronic

Flam. Sol. — Flammable solid

Acute Tox. — Acute toxicity - inhalation

Skin Irrit. — Skin irritation
STOT SE — Specific target organ toxicity - single exposure

Carc. — Carcinogenicity

STOT SE — Specific target organ toxicity - single exposure - narcotic effects

Acute Tox. — Acute toxicity - oral

Aquatic Acute — Hazardous to the aquatic environment - acute

Skin Corr. — Skin corrosion

Resp. Sens. — Respiratory sensitization

Skin Sens. — Skin sensitization STOT RE — Specific target organ toxicity - repeated exposure

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:

according, according to acc., acc. 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

Article number Art., Art. no.

ASTM ASTM International (American Society for Testing and Materials)

ATF Acute Toxicity Estimate

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

BCF Bioconcentration factor

BSEF The International Bromine Council

body weight hw

CAS Chemical Abstracts Service



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

CMR carcinogenic, mutagenic, reproductive toxic

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

dw dry weight

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

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

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

ΕN **Furopean Norms**

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

ErCx, $E\mu Cx$, ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)

etc. et cetera ΕU European Union

EVAL Ethylene-vinyl alcohol copolymer

Fax. Fax number general gen.

Globally Harmonized System of Classification and Labelling of Chemicals GHS

GWP Global warming potential

Adsorption coefficient of organic carbon in the soil Koc

octanol-water partition coefficient Kow

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

IMDG-code International Maritime Code for Dangerous Goods

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

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

NIOSH National Institute for Occupational Safety and Health (USA)

NI P No-longer-Polymer

NOEC, NOEL No Observed Effect Concentration/Level

OECD Organisation for Economic Co-operation and Development

org.

OSHA Occupational Safety and Health Administration (USA)

PBT persistent, bioaccumulative and toxic

PΕ Polyethylene

PNEC Predicted No Effect Concentration

parts per million mag Polyvinylchloride **PVC**

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.

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

Telephone Tel.

Total organic carbon TOC



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UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

Volatile organic compounds VOC

vPvB very persistent and very bioaccumulative

wet weight wwt

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: Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90

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