

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008



Revision date: 02-Dec-2022

Revision Number: 1.01

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

1.1. Product identifier

Product Name: OPN-Rust Converter
Article number: 66407
UFI: 6UVW-45DV-800T-AWYH

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

Product categories [PC]: PC14 - Metal surface treatment products, including galvanic and electroplating products
Sector of uses [SU]: SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites
Environmental release categories [ERC]: ERC4 - Industrial use of processing aids in processes and products, not becoming part of articles

1.3. Details of the supplier of the safety data sheet

Supplier: OPN-CHEMIE GmbH
In der Au 14
D - 57290 Neunkirchen
Telefon: +49 2735/7725-0
Telefax: +49 2735/7725-90
www.opn-chemie.de

E-mail address info@opn-chemie.de

1.4. Emergency telephone number

Emergency information service Poison Information Center Freiburg +49(0)761/19240

Emergency Telephone - §45 - (EC)1272/2008	
Europe	112
Austria	+43 1 406 43 43 (Giftinformationszentrale)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Flammable liquids	Category 3 - (H226)
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2.2. Label elements



Signal word: Warning

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Hazard statements:

H226 Flammable liquid and vapor.

EU Specific Hazard Statements:

EUH208 Contains 1,2-Benzisothiazol-3(2H)-one, 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone May produce an allergic reaction.

Precautionary Statements - EU (§28, 1272/2008):

P233 Keep container tightly closed.

P363 Wash contaminated clothing before reuse.

P403 + P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents / container in accordance with national regulations of the disposal.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P370 + P378 In case of fire: Use dry chemical, CO₂, water spray or alcohol-resistant foam to extinguish.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

2.3. Other hazards

Causes mild skin irritation.

SECTION 3: Composition/information on ingredients

polymeric film-forming substances, water, additives

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	CAS No	EC No (EU Index No)	REACH registration number	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Weight-%
Ethyl alcohol	64-17-5	200-578-6	01-2119457610-43	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319)	10 - < 25
2-Butoxyethanol	111-76-2	203-905-0	01-2119475108-36	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Acute Tox. 4 (H332)	3 - < 5
Carbon black	1333-86-4	215-609-9 435-640-3	01-2119384822-32	[!]	0.5 - < 1
Ammonium hydroxide	1336-21-6	215-647-6	01-2119488876-14	Skin Corr. 1B (H314) STOT SE 3 (H335) Aquatic Acute 1 (H400)	0.1 - < 0.25
Methyl ethyl ketone	78-93-3	201-159-0	01-2119457290-43	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319) STOT SE 3 (H336) (EUH066)	0.1 - < 0.25
1,2-Benzisothiazol-3(2H)-one	2634-33-5	() 220-120-9	01-2120761540-60	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Skin Sens. 1 (H317) Eye Dam. 1 (H318) Acute Tox. 2 (H330) Aquatic Acute 1 (H400)	0.005 - < 0.01

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				Aquatic Chronic 2 (H411)	
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone	55965-84-9	611-341-5 911-418-6	01-2120764691-48	Acute Tox. 3 (H301) Acute Tox. 2 (H310) Skin Corr. 1B (H314) Skin Sens. 1A (H317) Eye Dam. 1 (H318) Acute Tox. 2 (H330) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) (EUH071)	0.0005 - < 0.001

Classification according to Regulation (EC) No. 1272/2008 [CLP] - Notes
[I] - Restricted substance per REACH Annex XVII

Chemical name	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	Notes
Ethyl alcohol 64-17-5	Eye Irrit. 2 :: C>=50%			
Ammonium hydroxide 1336-21-6	STOT SE 3 (H335):: C>=5%			B
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	Skin Corr. 1C :: C>=0.6% Skin Irrit. 2 :: 0.06%<=C<0.6% Eye Dam. 1 :: C>=0.6% Eye Irrit. 2 :: 0.06%<=C<0.6% Skin Sens. 1A :: C>=0.0015%	100	100	

Acute Toxicity Estimate:

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Ethyl alcohol 64-17-5	10470	2002	No data available	51	No data available
2-Butoxyethanol 111-76-2	1300	2001	1.5	11	No data available
Carbon black 1333-86-4	15415.4	3003	0.0046	No data available	No data available
Ammonium hydroxide 1336-21-6	350	No data available	No data available	No data available	No data available
Methyl ethyl ketone 78-93-3	2194	5002	No data available	34	No data available
1,2-Benzisothiazol-3(2H)-one 2634-33-5	490	2000	0.0501	0.501	No data available
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	457	660	0.0501	No data available	No data available

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:	Remove to fresh air.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.
Skin contact:	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Ingestion:	Rinse mouth.
Self-protection of the first aider:	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information.

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

Symptoms: Prolonged contact may cause redness and irritation.

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

Note to physicians: Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media:	Dry chemical. Carbon dioxide (CO ₂). Water spray. Alcohol resistant foam.
Large Fire:	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media:	Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical: Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters: Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

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6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

Other information: Ventilate the area.

For emergency responders: Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions: Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment: Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up: Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Prevention of secondary hazards: Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections: See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling



Advice on safe handling: Use personal protection equipment. Avoid contact with skin and eyes. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions.

General hygiene considerations: Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

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7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

7.3. Specific end use(s)

Other information: No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits:

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Ethyl alcohol 64-17-5		TWA: 1000 ppm TWA: 1900 mg/m ³ STEL 2000 ppm STEL 3800 mg/m ³	TWA: 1000 ppm TWA: 1907 mg/m ³	TWA: 1000 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³
2-Butoxyethanol 111-76-2	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ *	TWA: 20 ppm TWA: 98 mg/m ³ STEL 40 ppm STEL 200 mg/m ³ H*	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ D*	STEL: 50 ppm STEL: 246 mg/m ³ TWA: 20 ppm TWA: 98 mg/m ³ K*	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ *
Carbon black 1333-86-4			TWA: 3 mg/m ³		TWA: 3.5 mg/m ³ STEL: 7 mg/m ³
Methyl ethyl ketone 78-93-3	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³	TWA: 100 ppm TWA: 295 mg/m ³ STEL 200 ppm STEL 590 mg/m ³ H*	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³	STEL: 885 mg/m ³ TWA: 590 mg/m ³	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9		TWA: 0.05 mg/m ³ Sh+			
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Ethyl alcohol 64-17-5		TWA: 1000 mg/m ³ Ceiling: 3000 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³	TWA: 500 ppm TWA: 1000 mg/m ³ STEL: 1000 ppm STEL: 1900 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³ STEL: 1300 ppm STEL: 2500 mg/m ³
2-Butoxyethanol 111-76-2	* STEL: 50 ppm STEL: 246 mg/m ³ TWA: 20 ppm TWA: 98 mg/m ³	TWA: 100 mg/m ³ Ceiling: 200 mg/m ³ D*	TWA: 20 ppm TWA: 98 mg/m ³ H*	S+ TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ A*	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 250 mg/m ³ iho*
Carbon black 1333-86-4		TWA: 2.0 mg/m ³	TWA: 3.5 mg/m ³	TWA: 3 mg/m ³	TWA: 3.5 mg/m ³ STEL: 7 mg/m ³
Ammonium hydroxide 1336-21-6					TWA: 20 ppm TWA: 14 mg/m ³ STEL: 50 ppm STEL: 36 mg/m ³
Methyl ethyl ketone 78-93-3	STEL: 300 ppm STEL: 900 mg/m ³ TWA: 200 ppm	TWA: 600 mg/m ³ Ceiling: 900 mg/m ³	TWA: 50 ppm TWA: 145 mg/m ³ H*	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm	TWA: 20 ppm TWA: 60 mg/m ³ STEL: 100 ppm

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	TWA: 600 mg/m ³			STEL: 900 mg/m ³	STEL: 300 mg/m ³ iho*
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Ethyl alcohol 64-17-5	TWA: 1000 ppm TWA: 1900 mg/m ³ STEL: 5000 ppm STEL: 9500 mg/m ³	TWA: 200 ppm TWA: 380 mg/m ³	TWA: 200 ppm TWA: 380 mg/m ³ Peak: 800 ppm Peak: 1520 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³	TWA: 1900 mg/m ³ STEL: 3800 mg/m ³
2-Butoxyethanol 111-76-2	TWA: 10 ppm TWA: 49 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ *	TWA: 10 ppm TWA: 49 mg/m ³ H*	TWA: 10 ppm TWA: 49 mg/m ³ Peak: 20 ppm Peak: 98 mg/m ³ *	TWA: 25 ppm TWA: 120 mg/m ³ *	TWA: 98 mg/m ³ STEL: 246 mg/m ³ b*
Carbon black 1333-86-4	TWA: 3.5 mg/m ³			TWA: 3.5 mg/m ³ STEL: 7 mg/m ³	TWA: 3 mg/m ³
Ammonium hydroxide 1336-21-6			TWA: 14 mg/m ³		
Methyl ethyl ketone 78-93-3	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³ *	TWA: 200 ppm TWA: 600 mg/m ³ H*	TWA: 200 ppm TWA: 600 mg/m ³ Peak: 200 ppm Peak: 600 mg/m ³ *	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³	TWA: 600 mg/m ³ STEL: 900 mg/m ³ b*
1,2-Benzisothiazol-3(2H)-one 2634-33-5			skin sensitizer		
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9			MAK: 0.2 mg/m ³		
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Ethyl alcohol 64-17-5	STEL: 1000 ppm		STEL: 1000 ppm STEL: 1884 mg/m ³	TWA: 1000 mg/m ³	TWA: 500 ppm TWA: 1000 mg/m ³ STEL: 1000 ppm STEL: 1900 mg/m ³
2-Butoxyethanol 111-76-2	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Sk*	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ cute*	TWA: 20 ppm TWA: 97 mg/m ³	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Ada*	O* TWA: 10 ppm TWA: 50 mg/m ³ STEL: 20 ppm STEL: 100 mg/m ³
Carbon black 1333-86-4	TWA: 3 mg/m ³ STEL: 15 mg/m ³		TWA: 3 mg/m ³		
Methyl ethyl ketone 78-93-3	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³ Sk*	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³	TWA: 200 ppm TWA: 590 mg/m ³ STEL: 300 ppm STEL: 885 mg/m ³	TWA: 67 ppm TWA: 200 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³	
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Ethyl alcohol 64-17-5			TWA: 260 mg/m ³ STEL: 1900 mg/m ³ H*	TWA: 500 ppm TWA: 950 mg/m ³ STEL: 625 ppm STEL: 1187.5 mg/m ³	TWA: 1900 mg/m ³
2-Butoxyethanol 111-76-2	Peau* STEL: 50 ppm STEL: 246 mg/m ³ TWA: 20 ppm TWA: 98 mg/m ³	skin* STEL: 50 ppm STEL: 246 mg/m ³ TWA: 20 ppm TWA: 98 mg/m ³	TWA: 100 mg/m ³ STEL: 246 mg/m ³ H*	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 20 ppm STEL: 75 mg/m ³ H*	STEL: 200 mg/m ³ TWA: 98 mg/m ³ skóra*
Carbon black 1333-86-4				TWA: 3.5 mg/m ³ STEL: 7 mg/m ³	TWA: 4 mg/m ³
Methyl ethyl ketone 78-93-3	STEL: 300 ppm STEL: 900 mg/m ³ TWA: 200 ppm TWA: 600 mg/m ³	STEL: 300 ppm STEL: 900 mg/m ³ TWA: 200 ppm TWA: 600 mg/m ³	TWA: 590 mg/m ³ STEL: 900 mg/m ³ H*	TWA: 75 ppm TWA: 220 mg/m ³ STEL: 112.5 ppm STEL: 275 mg/m ³	STEL: 900 mg/m ³ TWA: 450 mg/m ³ skóra*
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Ethyl alcohol 64-17-5	TWA: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³	TWA: 500 ppm TWA: 960 mg/m ³	TWA: 960 mg/m ³ TWA: 500 ppm	STEL: 1000 ppm STEL: 1910 mg/m ³

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		STEL: 5000 ppm STEL: 9500 mg/m ³	Ceiling: 1920 mg/m ³	STEL: 1000 ppm STEL: 1920 mg/m ³	
2-Butoxyethanol 111-76-2	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Cutânea*	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ P*	TWA: 20 ppm TWA: 98 mg/m ³ K* Ceiling: 246 mg/m ³	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ K*	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 245 mg/m ³ via dérmica*
Carbon black 1333-86-4	TWA: 3 mg/m ³		TWA: 2 mg/m ³ TWA: 10 mg/m ³		TWA: 3.5 mg/m ³
Methyl ethyl ketone 78-93-3	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³	TWA: 200 ppm TWA: 600 mg/m ³ Ceiling: 900 mg/m ³	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³ K*	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³
Chemical name	Sweden	Switzerland	United Kingdom	Russia	Turkey
Ethyl alcohol 64-17-5	NGV: 500 ppm NGV: 1000 mg/m ³ Vägledande KGV: 1000 ppm Vägledande KGV: 1900 mg/m ³	TWA: 500 ppm TWA: 960 mg/m ³ STEL: 1000 ppm STEL: 1920 mg/m ³	TWA: 1000 ppm TWA: 1920 mg/m ³ STEL: 3000 ppm STEL: 5760 mg/m ³	TWA: 1000 mg/m ³ MAC: 2000 mg/m ³	
2-Butoxyethanol 111-76-2	NGV: 10 ppm NGV: 50 mg/m ³ Bindande KGV: 50 ppm Bindande KGV: 246 mg/m ³ *	TWA: 10 ppm TWA: 49 mg/m ³ STEL: 20 ppm STEL: 98 mg/m ³ H*	TWA: 25 ppm TWA: 123 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Sk*	MAC: 5 mg/m ³	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ S*
Carbon black 1333-86-4	NGV: 3 mg/m ³		TWA: 3.5 mg/m ³ STEL: 7 mg/m ³		
Methyl ethyl ketone 78-93-3	NGV: 50 ppm NGV: 150 mg/m ³ Bindande KGV: 300 ppm Bindande KGV: 900 mg/m ³	TWA: 200 ppm TWA: 590 mg/m ³ STEL: 200 ppm STEL: 590 mg/m ³ H*	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 899 mg/m ³ Sk*	TWA: 200 mg/m ³ MAC: 400 mg/m ³	TWA: 200 ppm TWA: 600 mg/m ³ STEL: 300 ppm STEL: 900 mg/m ³
5-Chloro-2-methyl-3(2H)-isot hiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9		S+ TWA: 0.2 mg/m ³			

Biological occupational exposure limits:

Chemical name	European Union	Germany DFG	Netherlands	Spain	United Kingdom	Hungary
2-Butoxyethanol 111-76-2	-	150 mg/g Creatinine (urine - Butoxyacetic acid (after hydrolysis) for long-term exposures: at the end of the shift after several shifts) 150 mg/g Creatinine (urine - Butoxyacetic acid (after hydrolysis) end of shift) 150 mg/g Creatinine - BAT (for long-term exposures: at the end of the shift)		200 mg/g Creatinine - urine (Butoxyacetic acid (with hydrolysis)) - end of shift	240 mmol/mol creatinine - urine (Butoxyacetic acid) - post shift	

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Chemical name	European Union	Germany DFG	Netherlands	Spain	United Kingdom	Hungary
		after several shifts) urine 150 mg/g Creatinine - BAT (end of exposure or end of shift) urine				
Methyl ethyl ketone 78-93-3	-	2 mg/L (urine - 2-Butanone end of shift) 2 mg/L - BAT (end of exposure or end of shift) urine		2 mg/L - urine (Methyl ethyl ketone) - end of shift	70 µmol/L - urine (Butan-2-one) - post shift	

Chemical name	France	Italy MDLPS	Portugal	Finland	Denmark	Czech Republic
Methyl ethyl ketone 78-93-3	2 mg/L - urine (Methylethylketon e) - end of shift	-	-			

Chemical name	Austria	Switzerland	Poland	Norway	Ireland	Russia
2-Butoxyethanol 111-76-2	-	150 mg/g creatinine - urine (2-Butoxyacetic acid (after hydrolysis)) - end of shift, and after several shifts (for long-term exposures)	-	-	200 mg/g Creatinine (urine - end of shift)	
Carbon black 1333-86-4	(-)		-	-	-	
Methyl ethyl ketone 78-93-3	-	2 mg/L - urine (2-Butanone) - end of shift	-	-	70 µmol/L (urine - Butan-2-one post shift)	

Derived No Effect Level (DNEL):

component information:

Worker - inhalative:

Chemical name	long term, systemic	short term, systemic	long term, local	short term, local
Ethyl alcohol	950 mg/m ³			1900 mg/m ³
2-Butoxyethanol	98 mg/m ³	1091 mg/m ³		246 mg/m ³
Carbon black	1 mg/m ³		0.5 mg/m ³	
Methyl ethyl ketone	600 mg/m ³			
1,2-Benzisothiazol-3(2H)-one	6.81 mg/m ³			
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone			0.02 mg/m ³	0.04 mg/m ³

Worker - dermal:

Chemical name	long term, systemic	short term, systemic	long term, local	short term, local
Ethyl alcohol	343 mg/kg bw/day			
2-Butoxyethanol	125 mg/kg bw/day	89 mg/kg bw/day		

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OPN-Rust Converter

Chemical name	long term, systemic	short term, systemic	long term, local	short term, local
Methyl ethyl ketone	1161 mg/kg bw/day			
1,2-Benzisothiazol-3(2H)-one	0.966 mg/kg bw/day			

Consumer - inhalative:

Chemical name	long term, systemic	short term, systemic	long term, local	short term, local
Ethyl alcohol	114 mg/m ³			950 mg/m ³
2-Butoxyethanol	59 mg/m ³	426 mg/m ³		147 mg/m ³
Carbon black	0.06 mg/m ³			
Methyl ethyl ketone	106 mg/m ³			
1,2-Benzisothiazol-3(2H)-one	1.2 mg/m ³			
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone			0.02 mg/m ³	0.04 mg/m ³

Consumer - dermal:

Chemical name	long term, systemic	short term, systemic	long term, local	short term, local
Ethyl alcohol	206 mg/kg bw/day			
2-Butoxyethanol	75 mg/kg bw/day	89 mg/kg bw/day		
Methyl ethyl ketone	412 mg/kg bw/day			
1,2-Benzisothiazol-3(2H)-one	0.345 mg/kg bw/day			

consumer - oral:

Chemical name	long term, systemic	short term, systemic	long term, local	short term, local
Ethyl alcohol	87 mg/kg bw/day			
2-Butoxyethanol	6.3 mg/kg bw/day	26.7 mg/kg bw/day		
Methyl ethyl ketone	31 mg/kg bw/day			
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone	0.09 mg/kg bw/day	0.11 mg/kg bw/day		

Predicted No Effect Concentration (PNEC):

component information:

Chemical name	Ethyl alcohol CAS: 64-17-5
Freshwater	0.96 mg/L
Marine water	0.79 mg/L
Freshwater (intermittent release)	2.75 mg/L
Sewage treatment	580 mg/L
Freshwater sediment	3.6 mg/kg sediment dw
Marine sediment	2.9 mg/kg sediment dw
Soil	0.63 mg/kg soil dw
Food chain	0.38 g/kg food 0.72 g/kg food
Chemical name	2-Butoxyethanol CAS: 111-76-2
Freshwater	8.8 mg/L

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Marine water	0.88 mg/L
Freshwater (intermittent release)	26.4 mg/L
Sewage treatment	463 mg/L
Freshwater sediment	34.6 mg/kg sediment dw
Marine sediment	3.46 mg/kg sediment dw
Soil	2.33 mg/kg soil dw
Food chain	0.02 g/kg food
Chemical name	Carbon black CAS: 1333-86-4
Freshwater	1 mg/L 50 mg/L
Marine water	0.1 mg/L
Freshwater (intermittent release)	10 mg/L
Marine water (intermittent release)	1 mg/L
Chemical name	Methyl ethyl ketone CAS: 78-93-3
Freshwater	55.8 mg/L
Marine water	55.8 mg/L
Freshwater (intermittent release)	55.8 mg/L
Sewage treatment	709 mg/L
Freshwater sediment	284.74 mg/kg sediment dw
Marine sediment	284.7 mg/kg sediment dw
Soil	22.5 mg/kg soil dw
Food chain	1000 mg/kg food
Chemical name	1,2-Benzisothiazol-3(2H)-one CAS: 2634-33-5
Freshwater	4.03 µg/L
Marine water	0.403 µg/L
Freshwater (intermittent release)	1.1 µg/L
Marine water (intermittent release)	110 ng/L
Sewage treatment	1.03 mg/L
Freshwater sediment	49.9 µg/kg sediment dw
Marine sediment	4.99 µg/kg sediment dw
Soil	3 mg/kg soil dw
Chemical name	5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone CAS: 55965-84-9
Freshwater	3.39 µg/L
Marine water	3.39 µg/L
Freshwater (intermittent release)	3.39 µg/L
Marine water (intermittent release)	3.39 µg/L
Sewage treatment	0.23 mg/L
Freshwater sediment	0.027 mg/kg sediment dw
Marine sediment	0.027 mg/kg sediment dw
Soil	0.01 mg/kg soil dw

8.2. Exposure controls

Engineering controls: None under normal use conditions.

Personal protective equipment: The usual precautionary measures for the handling of chemicals have to be observed.

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Eye/face protection: Tight sealing safety goggles.

Hand protection: Wear suitable gloves. Impervious gloves.

PPE - Glove material	Glove thickness	Break through time
Butyl caoutchouc (butyl rubber)	0.5 mm	>=480 min.

Skin and body protection: Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

Respiratory protection: No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Recommended Filter Type: Filtering device (full mask or mouthpiec) with filter: AP-2

Environmental exposure controls: No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid				
Color	black				
Odor	characteristic				
Melting point / melting range				Conditions	Method
Boiling point / boiling range	78 - 118	°C			Remarks
Flammability					Not established
Decomposition temperature					Not established
Flash point	~ 42	°C			not relevant
Autoignition temperature					None known
Lower explosive limit					not relevant
Upper explosion limit					not relevant
Vapor pressure					Not established
Density	~ 0.980	g/cm ³	20 °C		
Water solubility					Miscible
pH	7.3 - 8.5		20 °C		
pH (as aqueous solution)					Not applicable
Partition coefficient					Not established
Kinematic viscosity					Not applicable
Odor threshold					Not established
Relative density					Not established
Evaporation rate					Not established
Relative vapor density	no data available				
Particle Size	no data available				
Particle Size Distribution	no data available				

9.2. Other information

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Bulk density: no data available
Softening point No information available
Molecular weight No information available

9.2.1. Information with regard to physical hazard classes:

Explosive properties Not an explosive
Oxidizing properties Not oxidising.

9.2.2. Other safety characteristics: No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity: No information available.

10.2. Chemical stability

Stability: Stable under normal conditions.

Explosion data:

Sensitivity to mechanical impact: None.
Sensitivity to static discharge: Yes.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions: None under normal processing.

10.4. Conditions to avoid

Conditions to avoid: Heat, flames and sparks.

10.5. Incompatible materials

Incompatible materials: Strong oxidizing agents.

10.6. Hazardous decomposition products

Hazardous decomposition products: None known based on information supplied.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure:

Product Information: The product has not been tested
Inhalation: Specific test data for the substance or mixture is not available.
Eye contact: Specific test data for the substance or mixture is not available.

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Skin contact: Specific test data for the substance or mixture is not available. Causes mild skin irritation.

Ingestion: Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics:

Symptoms: Prolonged contact may cause redness and irritation.

Numerical measures of toxicity:

Acute toxicity: The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral):	43,297.30 mg/kg
ATEmix (dermal):	14,462.80 mg/kg
ATEmix (inhalation-dust/mist):	49.9584 mg/l
ATEmix (inhalation-vapor):	366.361 mg/l

Component Information:

Chemical name	Parameter	Species	effective Dosis	Method
Ethyl alcohol 64-17-5	Oral LD50	Rat	10470 mg/kg	OECD 401
2-Butoxyethanol 111-76-2	Oral LD50	Rat	1300 mg/kg	OECD 401
Carbon black 1333-86-4	Oral LD50	Rat	> 15400 mg/kg	
Methyl ethyl ketone 78-93-3	Oral LD50	Rat	> 2193 mg/kg	OECD 423
1,2-Benzisothiazol-3(2H)-one 2634-33-5	Oral LD50	Rat	490 mg/kg	
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	Oral LD50	Rat	457 mg/kg	

Chemical name	Parameters	Species	Effective dose	Method
Ethyl alcohol 64-17-5	Dermal LD50	Rabbit	> 2000 mg/kg	OECD 402
2-Butoxyethanol 111-76-2	Dermal LD50	Guinea pig	> 2000 mg/kg	OECD 402
Carbon black 1333-86-4	Dermal LD50	Rabbit	> 3 g/kg	
Methyl ethyl ketone 78-93-3	Dermal LD50	Rabbit	> 5000 mg/kg	OECD 402
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	Dermal LD50	Rabbit	660 mg/kg	

Chemical name	Parameters	Species	Effective dose	Exposure time	Method
Ethyl alcohol 64-17-5	Inhalation LC50	Rat	51 mg/L	4 h	OECD 403
2-Butoxyethanol 111-76-2	Inhalation LC0	Guinea pig	> 3.1 mg/L	1 h	OECD 403
Methyl ethyl ketone	Inhalation LC50	Rat	34 g/m ³	4 h	

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Chemical name	Parameters	Species	Effective dose	Exposure time	Method
78-93-3					
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	Inhalation LC50	Rat	171 - 2360 mg/m ³	4 h	

Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Skin corrosion/irritation:	Causes mild skin irritation.
Serious eye damage/eye irritation:	No information available.
Respiratory or skin sensitization:	No information available.
Germ cell mutagenicity:	No information available.
Carcinogenicity:	No information available.
Reproductive toxicity:	No information available.
STOT - single exposure:	No information available.
STOT - repeated exposure:	No information available.
Aspiration hazard:	No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No information available.

11.2.2. Other information

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity:

fish toxicity:

Chemical name	Parameter	Species	Effective dose	Exposure time	Method
Ethyl alcohol 64-17-5	LC50	Pimephales promelas	15300 mg/L	96 h	
2-Butoxyethanol 111-76-2	LC50	Lepomis macrochirus	1490 mg/L	96 h	OECD 203
Carbon black 1333-86-4	CL50	Brachydanio rerio	> 1000 mg/L	96 h	OECD 203
Ammonium hydroxide 1336-21-6	LC50	Oncorhynchus mykiss	0.89 mg/L	96 h	
Methyl ethyl ketone	LC50	Pimephales promelas	3130 - 3320 mg/L	96 h	OECD 203

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Chemical name	Parameter	Species	Effective dose	Exposure time	Method
78-93-3					
1,2-Benzisothiazol-3(2H)-one 2634-33-5	LC50		2.15 mg/L	96 h	
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	LC50	Oncorhynchus mykiss	0.22 mg/L	96 h	OECD 203

toxicity to crustacea:

Chemical name	Parameter	Species	Effective dose	Exposure time	Method
Ethyl alcohol 64-17-5	EC50	Daphnia magna	12340 mg/L	48 h	
2-Butoxyethanol 111-76-2	EC50	Daphnia magna	1550 mg/L	48 h	OECD 202
Carbon black 1333-86-4	EC50	Daphnia magna	> 5600 mg/L	24 h	OECD 202
Ammonium hydroxide 1336-21-6	LC50	Daphnia magna	101 mg/L	48 h	
Methyl ethyl ketone 78-93-3	EC50	Daphnia magna	> 520 mg/L	48 h	OECD 202
1,2-Benzisothiazol-3(2H)-one 2634-33-5	EC50		2.9 mg/L	48 h	
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	EC50	Daphnia magna	0.1 mg/L	48 h	OECD 202

Algae Toxicity:

Chemical name	Parameter	Species	Effective dose	Exposure time	Method
Ethyl alcohol 64-17-5	EC50	Chlorella vulgaris	275 mg/L	72 h	OECD 201
2-Butoxyethanol 111-76-2	EC50	Pseudokirchneriella subcapitata	> 900 mg/L	72 h	OECD 201
Ammonium hydroxide 1336-21-6	EC50	Chlorella vulgaris	2700 mg/L	18 d	
Methyl ethyl ketone 78-93-3	EC50	Pseudokirchneriella subcapitata	1972 mg/L	72 h	OECD 201
1,2-Benzisothiazol-3(2H)-one 2634-33-5	EC50		0.11 mg/L	72 h	
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	EC50	Pseudokirchneriella subcapitata	0.048 mg/L	72 h	OECD 201

Bacteria toxicity:

Chemical name	Parameters	Species	Effective dose	Exposure time	Method
2-Butoxyethanol 111-76-2	EC0	pseudomonas putida	> 700 mg/L	16 h	DIN 38412 part 8
Methyl ethyl ketone	EC0	pseudomonas putida	1150 mg/L	16 h	DIN 38412

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Chemical name	Parameters	Species	Effective dose	Exposure time	Method
78-93-3					
1,2-Benzisothiazol-3(2H)-one 2634-33-5	EC50		12.8 mg/L	3 h	
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	EC50	activated sludge	7.92 mg/L	3 h	

12.2. Persistence and degradability

Persistence and degradability: No information available

Chemical name	degradation rate	test duration	Rapidly biodegradable	Remarks	Method
Ethyl alcohol 64-17-5	97 %	28 d	Yes	Aerobic biological treatment	OECD 301 B
2-Butoxyethanol 111-76-2	90.4 %	28 d	Yes	Aerobic biological treatment	DIN 301 B
Ammonium hydroxide 1336-21-6			Yes		
Methyl ethyl ketone 78-93-3	98 %	28 d	Yes	Aerobic biological treatment	OECD 301 D
1,2-Benzisothiazol-3(2H)-one 2634-33-5	100 %	0.04 d	Yes		OECD 307
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	> 60 %	28 d	Yes		OECD 301

12.3. Bioaccumulative potential

Bioaccumulation: No information available

Chemical name	Partition coefficient	Bioconcentration factor (BCF)
Ethyl alcohol 64-17-5	-0.35	0.66
2-Butoxyethanol 111-76-2	0.81	3.2
Ammonium hydroxide 1336-21-6	<1	-0.64
Methyl ethyl ketone 78-93-3	0.3	<= 500
1,2-Benzisothiazol-3(2H)-one 2634-33-5	1.3	6.62
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	0.69	3.16

12.4. Mobility in soil

Mobility in soil: No information available.

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Mobility: No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment: No information available

Chemical name	PBT and vPvB assessment
Ethyl alcohol 64-17-5	The substance is not PBT / vPvB PBT assessment does not apply
2-Butoxyethanol 111-76-2	The substance is not PBT / vPvB
Carbon black 1333-86-4	The substance is not PBT / vPvB PBT assessment does not apply
Methyl ethyl ketone 78-93-3	The substance is not PBT / vPvB
1,2-Benzisothiazol-3(2H)-one 2634-33-5	The substance is not PBT / vPvB
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties.

No information available.

12.7. Other adverse effects.

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products: Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging: Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

Waste codes / waste designations according to EWC / AVV: 07 07 99 (Wastes not otherwise specified)

SECTION 14: Transport information

14.1. UN number

ADR: UN1170
RID: UN1170
IMDG: UN1170
IATA: UN1170

14.2 UN proper shipping name

ADR: ETHANOL SOLUTION
UN1170, ETHANOL SOLUTION, 3, III

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RID: ETHANOL SOLUTION
UN1170, ETHANOL SOLUTION, 3, III

IMDG: ETHANOL
UN1170, ETHANOL, 3, III, (42°C C.C.)

IATA: ETHANOL
UN1170, ETHANOL, 3, III

14.3. Transport hazard class(es)

ADR: 3
Hazard label(s) 3
Classification code F1
ADR Hazard Id (Kemmler Number) 30
Tunnel restriction code (D/E)
Limited quantity (LQ) 5 L
Excepted quantity E1

RID: 3
Labels 3
Classification code F1

IMDG: 3
Hazard label(s) 3
Limited quantity (LQ) 5 L
Excepted quantity E1
EmS-No F-E, S-D

IATA: 3
Hazard label(s) 3
Excepted quantity E1

14.4. Packing group

ADR: III
RID: III
IMDG: III
IATA: III

14.5. Environmental hazards

ADR: No
RID: No
IMDG: no marine pollutant
IATA: No

14.6. Special precautions for user

ADR:
Special Provisions: 144, 601
RID:
Special Provisions: 144, 601
IMDG:
Special Provisions: 144, 223
IATA:

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Special Provisions: A180, A3, A58
ERG Code 3L

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

No information available

SECTION 15: Regulatory information

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

European Union:

Regulation (EC) No. 1907/2006 (Annex II - (EC) No. 2020/878) and Regulation (EC) No. 1272/2008

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Take note of Directive 94/33/EC on the protection of young people at work:

Check whether measures in accordance with Directive 94/33/EC for the protection of young people at work must be taken

Authorizations and/or restrictions on use:

- This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Substance subject to authorization per REACH Annex XIV	Restricted substance per REACH Annex XVII
2-Butoxyethanol 111-76-2		75.
Carbon black 1333-86-4		75.
Ammonium hydroxide 1336-21-6		75.
Methyl ethyl ketone 78-93-3		3
1,2-Benzisothiazol-3(2H)-one 2634-33-5		75.
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9		3

Persistent Organic Pollutants: (EC) 2019/1021 Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU):

P5a - FLAMMABLE LIQUIDS

P5b - FLAMMABLE LIQUIDS

P5c - FLAMMABLE LIQUIDS

Ozone-depleting substances (ODS) regulation (EC) 1005/2009: Not applicable

EU - Plant Protection Products (1107/2009/EC):

Chemical name	EU - Plant Protection Products (1107/2009/EC)
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Chemical name	EU - Plant Protection Products (1107/2009/EC)
Carbon black 1333-86-4	Clayed charcoal shall be used in accordance with the specific conditions included in the conclusions of the review report on clayed charcoal (SANTE/11267/2016) and in particular Appendices I and II thereof (listed under part C, Clayed charcoal)

Biocidal Products Regulation (EU) No 528/2012 (BPR):

Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	2 - Disinfectants and algacides not intended for direct application to humans or animals 4 - Food and feed area disinfectant 6 - Preservatives for products during storage 11 - Preservatives for liquid-cooling and processing systems 12 - Slimicides 13 - Working or cutting fluid preservatives

volatile organic compounds (VOC) content:

acc. reg. 2010/75/EG: 14 %

acc. reg. 2004/42/EG (Decopaint): 14 %

National regulations:

Denmark:

Chemical name	Denmark - MAL
Ethyl alcohol 64-17-5	7 m3/10 g substance MAL factor >0 % by weight [1]
2-Butoxyethanol 111-76-2	25 m3/10 g substance MAL factor >=10.0 % by weight [3]
Carbon black 1333-86-4	0 m3/10 g substance MAL factor >=0.1 - 5 % by weight [3] >=10 - 25 % by weight [3] >=25 % by weight [6] >=5 % by weight [6]
Methyl ethyl ketone 78-93-3	48 m3/10 g substance MAL factor >0 % by weight [1]
1,2-Benzisothiazol-3(2H)-one 2634-33-5	0 m3/10 g substance MAL factor >=1.0 % by weight [3]

Germany:

Water hazard class (WGK): slightly hazardous to water (WGK 1) - Classification according to AwSV

Chemical name	WGK Classification (AwSV)	ID number
Ethyl alcohol 64-17-5	1	96
2-Butoxyethanol 111-76-2	1	47
Carbon black 1333-86-4	nwg	1742
Ammonium hydroxide 1336-21-6	2	211
Methyl ethyl ketone	1	150

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78-93-3		
1,2-Benzisothiazol-3(2H)-one 2634-33-5	2	5141
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9	3	2959

TA Luft (German Air Pollution Control Regulation):
total dust incl. fine dust (digit 5.2.1): < 5%
org. substances (Ziffer 5.2.5): 10 - 15%
org. subst. dust (digit 5.2.5): < 5%

Storage class (TRGS 510): LGK 3 - Flammable liquids

France:

Occupational Illnesses (R-463-3, France):

Chemical name	French RG number
Ethyl alcohol 64-17-5	RG 84
2-Butoxyethanol 111-76-2	RG 84
Carbon black 1333-86-4	RG 16, RG 16bis
Methyl ethyl ketone 78-93-3	RG 84
1,2-Benzisothiazol-3(2H)-one 2634-33-5	RG 65

RG 16 - Skin conditions or mucous membrane conditions caused by coal tars, coal oils (including "phenol", "naphthalene", "acenaphthene", "anthracene", and "chrysene" distillation fractions), coal pitches and soots from combustion of coal
RG 16bis - Cancers caused by coal tars, coal oils, coal pitches, and soots from combustion of coal
RG 65 - Allergic eczema
RG 84 - Occupational conditions caused by liquid organic solvents

Netherlands:

Chemical name	Ethyl alcohol
Netherlands - List of Carcinogens	Present X
Netherlands - List of Reproductive Toxins	Fertility Category 1A Development Category 1A Can be harmful via breastfeeding

Water contaminating class (Netherlands): B (4)

Austria:

Flammable Liquids Regulations, VbF: Flammable liquids BII

Poland:

Ordinance of the Minister of Family, Labor and Social Policy dated June 12, 2018 on the highest permissible concentrations and intensities of harmful factors for health in the work environment (Dz. U. 2018 item 1286, as amended)
Act of December 14, 2012 on waste (Journal of Laws of 2013, item 21; as amended)

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Act on chemical substances and their mixtures of February 25, 2011. (Journal of Laws No. 63, item 322; as amended)
Regulation of the Minister of Labor and Social Policy of September 26, 1997 on general regulations of safety and hygiene at work (Dz. U. of 2003, No. 169, item 1650; as amended).

Switzerland:

VOC content:: acc. VOCV CH 814.018, att. 1: 14 %

Hungary:

Decree No 44/2000 (XII.27.) of the Ministry of Economic Affairs and Labour of the Republic of Hungary on certain procedures and activities Joint Decree No. 5/2020 ITM on Chemical Safety at Work 178/2017 (VII. 5.)
Government Decree on the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) „A“ and „B“ of the European Agreement on Road Transport

International Inventories:

TSCA	Does not comply
DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply
NZIoC	Does not comply

Legend:

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- NZIoC** - New Zealand Inventory of Chemicals
- DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS** - Japan Existing and New Chemical Substances
- IECSC** - China Inventory of Existing Chemical Substances
- KECL** - Korean Existing and Evaluated Chemical Substances
- PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- AICS** - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

Chemical Safety Report: No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet:

Full text of H-Statements referred to under section 3:

EUH066	Repeated exposure may cause skin dryness or cracking
EUH071	Corrosive to the respiratory tract
H225	Highly flammable liquid and vapor
H301	Toxic if swallowed
H302	Harmful if swallowed
H310	Fatal in contact with skin
H312	Harmful in contact with skin

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H314 - Causes severe skin burns and eye damage
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H330 - Fatal if inhaled
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
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

Legend:

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
ADR: European agreement concerning the international carriage of dangerous goods by road
(Accord européen relatif transport des marchandises dangereuses par route)
AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany)
BCF: Bio-Concentration Factor
BOD(5): Biochemical oxygen demand (within 5 days)
CAS: Chemical Abstract Service
CLP: Classification, Labelling and Packaging
CMR: Carcinogenic, Mutagenic, toxic for Reproduction
DIN: German Standards Institute / German industrial norm
DNEL: Derived No Effect Level
DOC: Dissolved organic carbon
EAK/ AVV: European waste catalogue/ waste directory-regulation
EC50: Effective Concentration 50%
ECHA: European Chemical Agency
EINECS: European Inventory of Existing Commercial Chemical Substances
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
IATA: International Air Transport Association
IC50: Inhibition Concentration 50%
IMDG: International Maritime Dangerous Goods Code
LC50: Lethal Concentration 50% - LD50: Lethal dose 50%
MAK: Treshold limit values Germany
NLP: No Longer Polymers
NOAEC: No Observed Adverse Effect Concentration
NOAEL: No Observed Adverse Effect Level
OECD: Organization for Economic Cooperation and Development
PBT: persistent, bioaccumulative, toxic
PC: Product category
PNEC: Predicted No Effect Concentration
REACH: Registration, Evaluation and Authorization of Chemicals
RID: Regulations concerning the international carriage of dangerous goods by rail
(Règlement International concernant le transport de marchandises dangereuses par chemin de fer)
STEL: Short-term Exposure Limit
STP: Sewage treatment plant
SVHC: Substance of Very High Concern
TLV: Threshold Limit Value
TWA: Time Weighted Average
UN: United Nations
VOC: Volatile Organic Compounds
vPvB: very persistent, very bioaccumulative

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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Ceiling: Maximum limit value

* Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitization	Calculation method
Skin sensitization	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS:

European Chemicals Agency (ECHA)

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

RTECS (Registry of Toxic Effects of Chemical Substances)

World Health Organization

Revision date: 04-Jan-2023

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006:

Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific

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material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet