



Safety Data Sheet according to Regulation (EC) 'No. 2020/878

SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identifier	0928B	Revision Date:	20/03/2024
Product Name:	THERMALINE 450 - B	Supersedes Date:	18/05/2023
		Version Number:	3
UFI Code:	F219-A8SJ-1007-4JUH		
Contain nanoform:	No		
1.2 Relevant identified uses of the substance or mixture and uses advised against	Hardener for 2 components coatings - Industrial use. Please see Technical Data Sheet. Advised against: others than recommended		
Product to be mixed with:	THERMALINE 450 - A		
Mixing ratio by volume Part A/ Part B:	4 / 1		
1.3 Details of the supplier of the safety data sheet			
Supplier:	Carboline Italia, S.p.a. Via Margherita Viganò De Vizzi, 77 20092 Cinisello Balsamo (MI) Italy		
	Regulatory / Technical Information: +32 67493710 Nivelles, Belgium +39 0294759236 Cinisello Balsamo, Italy		
Datasheet Produced by:	Calcagno, Elena - hms@carboline.com		
1.4 Emergency telephone number:	CHEMTREC +1 703 5273887 (Outside US) 112 (24/7) Croatia +3851 2348 342 (24/7 in Croatian and English) Iceland 112 (24/7) Malta 112 (24/7)		

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture

Classification according to Classification, Labeling & Packaging Regulation (EC) 1272/2008

HAZARD STATEMENTS

Acute Toxicity, Oral, category 4	H302
Skin Irritation, category 2	H315
Skin Sensitizer, category 1	H317
Eye Irritation, category 2	H319
Acute Toxicity, Inhalation, category 4	H332
Reproductive Toxicity, category 2	H361F
Hazardous to the aquatic environment, Acute, category 1	H400
Hazardous to the aquatic environment, Chronic, category 2	H411

2.2 Label elements**Symbol(s) of Product****Signal Word**

Warning

Named Chemicals on Label

Benzyl alcohol, 1,2-cyclohexanediamine, 2-methylpentane-1,5-diamine, 4,4'-IsopropylidenediPh, oligomeric react with 1-chloro-2,3-epoxypropane, cyclohexane, 1,2-ylenediamine

HAZARD STATEMENTS

Acute Toxicity, Oral, category 4	H302	Harmful if swallowed.
Skin Irritation, category 2	H315	Causes skin irritation.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
Reproductive Toxicity, category 2	H361F	Suspected of damaging fertility.
Hazardous to the aquatic environment, Acute, category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment, Chronic, category 2	H411	Toxic to aquatic life with long lasting effects.

PRECAUTION PHRASES

P201	Obtain special instructions before use.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P391	Collect spillage.

2.3 Other hazards

No Information

Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

Endocrine disrupting properties - Toxicity

Name According to EEC

CAS-No.

Based on the available data, the product does not contain substances identified as having endocrine disrupting properties according to Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 in concentration of 0,1% or higher.

Endocrine disrupting properties - Ecotoxicity

Name According to EEC

CAS-No.

Based on the available data, the product does not contain substances identified as having endocrine disrupting properties according to Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 in concentration of 0,1% or higher.

SECTION 3: Composition/Information On Ingredients**3.1 Substances**

Not applicable

3.2 Mixtures**Hazardous ingredients**

<u>Name According to EEC</u> <u>EINEC No.</u> <u>CAS-No.</u> <u>REACH Reg No.</u>	<u>%</u>	<u>Classifications</u>	<u>SCL Value:</u> <u>ATE Value:</u> <u>M-Factor:</u>
4,4'- IsopropylidenediPh,oligomeric react with 1-chloro-2,3- epoxypropane,cyclohexane1,2- ylenediamine 500-268-3 87041-44-9 01-2120770777-38	50 - <75	H302-317-319-400-411 Acute Tox. 4 Oral, Aquatic Acute 1, Aquatic Chronic 2, Eye Irrit. 2, Skin Sens. 1	SCL Value: - ATE Value: - M-Factor: (acute) - M-Factor: (chronic) -
Benzyl alcohol 202-859-9 100-51-6 01-2119492630-38 603-057-00-5	25 - <50	H302-319-332 Acute Tox. 4 Inhalation, Acute Tox. 4 Oral, Eye Irrit. 2, Skin Sens. 1	SCL Value: - ATE Value: - M-Factor: (acute) - M-Factor: (chronic) -

<p>1,2-cyclohexanediamine 211-776-7 694-83-7 01-2119976312-37</p>	<p>10 - <25</p>	<p>H302-312-314-332-335-361F Acute Tox. 4 Dermal, Acute Tox. 4 Inhalation, Acute Tox. 4 Oral, Repr. 2, Skin Corr. 1A, STOT SE 3 RTI</p>	<p>SCL Value: - ATE Value: - M-Factor: (acute) - M-Factor: (chronic) -</p>
<p>2-methylpentane-1,5-diamine 239-556-6 15520-10-2 01-2119976310-41</p>	<p>2.5 - <10</p>	<p>H302-312-314-318-332-335 Acute Tox. 4 Dermal, Acute Tox. 4 Inhalation, Acute Tox. 4 Oral, Skin Corr. 1A, STOT SE 3 RTI</p>	<p>SCL Value: - ATE Value: - M-Factor: (acute) - M-Factor: (chronic) -</p>

Additional Information: The text for CLP Hazard Statements shown above (if any) is given in Section 16.

SECTION 4: First-aid Measures

4.1 Description of First Aid Measures

GENERAL NOTES: Show this safety data sheet to the doctor in attendance.

AFTER INHALATION: Move to fresh air. Provide fresh air, rest and warmth. Call a physician immediately. Give oxygen or artificial respiration if needed. When risk of unconsciousness, place and transport the victim in secured recovery position.

AFTER SKIN CONTACT: Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician. Do not use solvent or thinners to clean skin.

AFTER EYE CONTACT: Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses.

AFTER INGESTION: If vomiting occurs spontaneously: Keep head below hips to prevent aspiration of stomach vomit into lungs. Provide fresh air, rest and warmth. Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious person.

Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

May cause sensitization by skin contact. Harmful by inhalation and if swallowed. Irritating to eyes and skin.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Immediate medical attention is required. No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11. When symptoms persist or in all cases of doubt seek medical advice.

SECTION 5: Firefighting Measures

5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam

FOR SAFETY REASONS NOT TO BE USED: Alcohol, Alcohol based solutions, any other media not listed above. Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

Heating or fire conditions liberates toxic gas. As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Vapours may form explosive mixtures with air. Solvent vapours are heavier than air and may spread along floors and ignite.

5.3 Advice for firefighters

Possible risk of impaired fertility. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. In the event of fire, wear self-contained breathing apparatus. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Keep containers and surroundings cool with water spray.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Ensure adequate ventilation. Use personal protective equipment. Remove all sources of ignition.

6.1.2 For emergency responders

See Section 7, 8 and 10 for further information.

6.2 Environmental precautions

Avoid release to the environment. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Do not let product enter drains. Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Clean with detergents. Avoid solvents.

6.4 Reference to other sections

FURTHER INSTRUCTIONS: Please refer to EU disposal requirements or country specific disposal requirements for this material. See Section 8 and 13 for further information.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. Electrical equipment should be protected to the appropriate standard. Use only in area provided with appropriate exhaust ventilation. Provide sufficient air exchange and/or exhaust in work rooms. Wear personal protective equipment. Open drum carefully as content may be under pressure. Do not breathe vapours or spray mist. Use only explosion-proof equipment. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is being used. Apply technical measures to comply with the occupational exposure limits (see section 8). Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: Avoid heat, sparks, flames and other ignition sources.

STORAGE CONDITIONS: Store in original container. Keep locked up or in an area accessible only to qualified or authorised persons. Keep container closed. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. Store in upright position only. Storage of corrosive material. Store away from: oxidising materials, acids, and alkalis.

7.3 Specific end use(s)

No specific advice for end use available.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with Occupational Exposure Limits (EU)

<u>Name</u>	<u>CAS-No.</u>	<u>LTEL ppm</u>	<u>STEL ppm</u>	<u>STEL mg/m3</u>	<u>LTEL mg/m3</u>
4,4'-IsopropylidenediPh,oligomeric react with 1-chloro-2,3-epoxypropane,cyclohexane1,2-ylenediamine	87041-44-9				
Benzyl alcohol	100-51-6				
1,2-cyclohexanediamine	694-83-7				
2-methylpentane-1,5-diamine	15520-10-2				

<u>Name</u>	<u>CAS-No.</u>	<u>OEL Note</u>
4,4'-IsopropylidenediPh,oligomeric react with 1-chloro-2,3-epoxypropane,cyclohexane1,2-ylenediamine	87041-44-9	
Benzyl alcohol	100-51-6	
1,2-cyclohexanediamine	694-83-7	
2-methylpentane-1,5-diamine	15520-10-2	

FURTHER ADVICE: Refer to the regulatory exposure limits for the workforce enforced in each country. Some components may not have been classified under the EU CLP Regulation. Annotations: Carc = Capable of causing cancer and/or heritable genetic damage, Sen = Capable of causing occupational asthma, Sk = Can be absorbed through the skin.

Chemical Name:

Benzyl alcohol

EC No.:
202-859-9

CAS-No.:
100-51-6

DNELs - Derived no effect level

Route of Exposure	Workers				Consumers			
	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required					20 mg/Kg bw/day	5 mg/kg bw/day	4 mg/kg bw/day
Inhalation		110 mg/m ³		22 mg/m ³		27 mg/m ³		5.4 mg/m ³
Dermal		40 mg/kg bw/day		8 mg/kg bw/day		20 mg/kg bw/day		4 mg/kg bw/day

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	1 mg/L
Fresh water sediments	5.27 mg/kg ww
Marine water	0.1 mg/L
Marine sediments	0.527 mg/kg ww
Food chain	
Microorganisms in sewage treatment	39 mg/L
soil (agricultural)	0.456 mg/kg ww
Air	

Chemical Name:

1,2-cyclohexanediamine

EC No.:

211-776-7

CAS-No.:

694-83-7

DNELs - Derived no effect level

Route of Exposure	Workers				Consumers			
	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required							750 µg/kg bw/day
Inhalation	500 µg/m ³		250 µg/m ³		250 µg/m ³		125 µg/m ³	
Dermal	High hazard (no threshold derived)		High hazard (no threshold derived)	1.5 mg/kg bw/day	High hazard (no threshold derived)		High hazard (no threshold derived)	750 µg/kg bw/day

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	420 µg/L
Fresh water sediments	1.82 mg/kg sediment dw
Marine water	42 µg/L
Marine sediments	182 µg/kg sediment dw
Food chain	
Microorganisms in sewage treatment	
soil (agricultural)	117 µg/kg soil dw
Air	

8.2 Exposure controls**Personal Protection**

RESPIRATORY PROTECTION: Use compressed air or fresh air breathing apparatus in closed compartments. Wear respiratory protection with combination filter (dust and gas filter, EN 14387:2004+A1:2008) during spraying operations: Gas filter type A2 (organic substances). Dust filter P3 (for fine dust).

EYE PROTECTION: Face-shield. If splashes are likely to occur, wear: Face-shield, tightly fitting safety goggles (EN 166).

HAND PROTECTION: Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature). Long sleeved clothing. Remove and wash contaminated clothing before re-use. Use chemical resistant gloves and lotions and barrier creams to prevent drying of the skin. Protective gloves complying with EN 374: Butyl rubber. Nitril rubber. Recommended glove material for mixed product: Protective gloves complying with EN 374: Butyl rubber. Nitril rubber.

OTHER PROTECTIVE EQUIPMENT: Ensure that eyewash stations and safety showers are close to the workstation location.

ENGINEERING CONTROLS: Ensure adequate ventilation, especially in confined areas.

SECTION 9: Physical and Chemical Properties**9.1 Information on basic physical and chemical properties**

Colour:	Amber
Physical State	Liquid
Odor	Solvent
Odor threshold	Not determined
pH	Not determined
Melting point / freezing point (°C)	Not determined
Boiling point or initial boiling point and boiling range (°C)	205 - Not determined
Flash Point, (°C)	93

Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Lower and upper explosive limit	Not determined
Vapour Pressure	Not determined
Relative vapour density	Not determined
Density and/or relative density	Not determined
Solubility in / Miscibility with water	Slightly soluble
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature (°C)	Not determined
Decomposition temperature (°C)	Not determined
Kinematic viscosity	Not determined
Particle characteristics	Not applicable to liquids

9.2 Other information

VOC Content g/l:	350
Grams of VOC per liter of coating product as applied per ISO 11890-1 and/or ISO 11890-2.	
Specific Gravity (g/cm³)	1.06

SECTION 10: Stability and Reactivity

10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No reactivity hazards known under normal storage and use conditions.

10.4 Conditions to avoid

Avoid heat, sparks, flames and other ignition sources.

10.5 Incompatible materials

Keep away from strong oxidising agents and strongly acid or alkaline materials.

10.6 Hazardous decomposition products

In case of fire or hot work operations, **hazardous decomposition products** may be formed such as: Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), aliphatic amines, aldehydes.

SECTION 11: Toxicological information

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

Acute Toxicity:

Oral LD50:	No information available.
Inhalation LC50:	No information available.
Dermal LD50:	No information available.

Irritation: Irritating to eyes and skin.

Corrosivity: The product is not classified as corrosive according to test from supplier.

Sensitization:	May cause an allergic skin reaction.
Repeated dose toxicity:	No information available.
Carcinogenicity:	No information available.
Mutagenicity:	No information available.
Toxicity for reproduction:	Repr. 2
STOT-single exposure:	No information available.
STOT-repeated exposure:	No information available.
Aspiration hazard:	No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Name According to EEC</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>	<u>Gas LC50</u>	<u>Dust/Mist LC50</u>
87041-44-9	4,4'-IsopropylidenediPh,oligomeric react with 1-chloro-2,3-epoxypropane,cyclohexane1,2-ylenediamine	<2000 mg/kg bw (rat; OECD Guideline 423)	No information	No information	No information	No information
100-51-6	Benzyl alcohol	1200 mg/kg rat	2980 mg/kg, rabbit	No information	>20000 ppm	>4.178 mg/L (4h/ rat, mist)
694-83-7	1,2-cyclohexanediamine	1690 mg/kg bw (oral-rat)	No information	No information	No information	No information
15520-10-2	2-methylpentane-1,5-diamine	1690 mg/kg (rat)		4,9 mg/l		4,9 mg/l

Additional Information:

Chronic exposure causes drying effect on the skin and eczema. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. Inhalation of vapour or mist can cause headache, nausea, irritation of nose, throat, and lungs.

11.2 Information on other hazards

Endocrine disrupting properties - Toxicity

Name According to EEC	CAS-No.
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Based on the available data, the product does not contain substances identified as having endocrine disrupting properties according to Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 in concentration of 0,1% or higher.

SECTION 12: Ecological Information

12.1 Toxicity:

EC50 48hr (Daphnia):	No information
IC50 72hr (Algae):	No information
LC50 96hr (fish):	No information

12.2 Persistence and degradability: No information

12.3 Bioaccumulative potential: No information

12.4 Mobility in soil: No information

12.5 Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

12.6 Endocrine disrupting properties**Endocrine disrupting properties - Ecotoxicity****Name According to EEC****CAS-No.**

Based on the available data, the product does not contain substances identified as having endocrine disrupting properties according to Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 in concentration of 0,1% or higher.

12.7 Other adverse effects:

No information

<u>CAS-No.</u>	<u>Name According to EEC</u>	<u>EC50 48hr</u>	<u>IC50 72hr</u>	<u>LC50 96hr</u>
100-51-6	Benzyl alcohol	230 mg/L (Daphnia Magna)	770 mg/L (EgC50, Selenastrum capricornutum)	400 mg/L (fish)
15520-10-2	2-methylpentane-1,5-diamine			1825 mg/l (Pimephales promelas)

SECTION 13: Disposal Considerations

13.1 WASTE TREATMENT METHODS: Do not burn, or use a cutting torch on, the empty drum. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Empty containers should be taken to an approved waste handling site for recycling or disposal. Dispose of waste material at an approved (hazardous) waste treatment/disposal facility in accordance with applicable local state, and federal regulations. Do not dispose of waste with normal garbage, or to sewer systems.

European Waste Code: No Information

Packaging Waste Code: No Information

SECTION 14: Transport Information

	ADR/RID	ADN	IMDG	IATA
14.1 UN-number or ID number	UN3082	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4,4'-IsopropylidenediPh,oligomeric react with 1-chloro-2,3-epoxypropane,cyclohexane1,2-ylenediamine)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4,4'-IsopropylidenediPh,oligomeric react with 1-chloro-2,3-epoxypropane,cycl ohexane1,2-ylenediamine)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4,4'-IsopropylidenediPh,oligomeric react with 1-chloro-2,3-epoxypropane,cyclohexane1,2-ylenediamine)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4,4'-IsopropylidenediPh,oligomeric react with 1-chloro-2,3-epoxypropane,cyclohexane1,2-ylenediamine)
14.3 Transport Hazard Class(es)	9	9	9	9
14.4 Packing Group	III	III	III	III
14.5 Enviromental Hazards	Environmental Hazard: YES (4,4'-IsopropylidenediPh,oligomeric react with 1-chloro-2,3-epoxypropane,cyclohexane1,2-ylenediamine)	Environmental Hazard: YES (4,4'-IsopropylidenediPh,oligomeric react with 1-chloro-2,3-epoxypropane,cyclohexane1,2-ylenediamine)	Marine Pollutant: YES (4,4'-IsopropylidenediPh,oligomeric react with 1-chloro-2,3-epoxypropane,cyclohexane1,2-ylenediamine)	Environmental Hazard: YES (4,4'-IsopropylidenediPh,oligomeric react with 1-chloro-2,3-epoxypropane,cyclohexane1,2-ylenediamine)

- 14.6 Special precautions for user** Not applicable
EmS-No.: F-A, S-F
- 14.7 Maritime transport in bulk according to IMO intruments** Not applicable

SECTION 15: Regulatory Information**15.1 Safety, health and environmental regulations/legislation for the substance or mixture:****National Regulations:**

Denmark Product Registration Number:	Not available
Danish MAL Code:	Not available
Danish MAL Code - Mixture:	Not available
Sweden Product Registration Number:	Not available
Norway Product Registration Number:	Not available
Germany WGK Class:	Not available

Directive 2004/42/CE: 500 g/l (subcat j)
Covered by Directive 2012/18/EC (Seveso III): E1
Restrictions to product or to substances according to Annex XVII, Regulation (CE) 1907/2006: Entry 3, 40

Annex XIV, Regulation (CE) 1907/2006 - Authorisation List:

CAS-No. Name According to EEC

Not Applicable

SVHC - Substances of very high concern (Candidate List - Art. 59 REACH):

CAS-No. Name According to EEC

Not Applicable

15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other Information

Text for CLP Hazard Statements shown in Section 3 describing each ingredient:

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361f	Suspected of damaging fertility.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Reasons for revision

Composition Information Changed

Substance and/or Product Properties Changed in Section(s):

- 01 - Identification
- 02 - Hazard Identification
- 03 - Composition/Information On Ingredients
- 09 - Physical and Chemical Properties
- 11 - Toxicological Information
- 14 - Transportation Information
- 15 - Regulatory Information

Revision Statement(s) Changed

List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

- The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark.
- Joint Research Centre in Ispra, Italy.
- Regulation (EC) 1272/2008 with subsequent amendments.
- Regulation (EC) 1272/2006 with subsequent amendments.
- Commission Regulation (EU) 2020/878
- EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes"
- Safety Data Sheet from raw material supplier
- The classification declared in sec. 2.2 is based on the calculation methods set out in Annex I and Annex II of the CLP Reg. 1272/2008 on the composition of the formula.

Acronym & Abbreviation Key:

CLP	Classification, Labeling & Packaging Regulation
EC	European Commission
EU	European Union
US	United States
CAS	Chemical Abstract Service
EINECS	European Inventory of Existing Chemical Substances
REACH	Registration, Evaluation, Authorization of Chemicals Regulation
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
LTEL	Long term exposure limit
STEL	Short term exposure limit
OEL	Occupational exposure limit
ppm	Parts per million
mg/m ³	Milligrams per cubic meter
TLV	Threshold Limit Value
ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety & Health Administration
PEL	Permissible Exposure Limits
VOC	Volatile organic compounds
g/l	Grams per liter
mg/kg	Milligrams per kilogram
N/A	Not applicable
LD50	Lethal dose at 50%
LC50	Lethal concentration at 50%
EC50	Half maximal effective concentration
IC50	Half maximal inhibitory concentration
PBT	Persistent bioaccumulative toxic chemical
vPvB	Very persistent and very bioaccumulative
EEC	European Economic Community
ADR	International Transport of Dangerous Goods by Road
RID	International Transport of Dangerous Goods by Rail
UN	United Nations
IMDG	International Maritime Dangerous Goods Code
IATA	International Air Transport Association
MARPOL	International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978

IBC International Bulk Container
RTI Respiratory Tract Irritation
NE Narcotic Effects
IMO International Maritime Organization
Note P: The classification as a carcinogen or mutagen need not apply; the substance contains less than 0,1 % w/w benzene
Note 10: The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter $\leq 10 \mu\text{m}$.

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.

