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 1209B

Revision Date: 19/02/2025

Product Name: CARBOGUARD 1209 - PART B

Supersedes Date: 27/11/2024

Version Number: 2

UFI Code: 8JUS-SA3K-P00N-XJR6

Contain nanoform: No

1.2 Relevant identified uses of the substance or mixture and uses advised against Base component of 2 components coating - Industrial use. Hardener for 2 components coatings - Industrial use. Please see Technical Data Sheet. Advised against: others than recommended

Product to be mixed with: CARBOGUARD 1209 - PART A

Mixing ratio by volume Part A/ Part B: 15.5 / 4.5

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

regulatoryeurope@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

Skin Corrosion, category 1B H314-1B

Skin Sensitizer, category 1	H317
Hazardous to the aquatic environment, Acute, category 1	H400
Hazardous to the aquatic environment, Chronic, category 1	H410

2.2 Label elements

Symbol(s) of Product

Signal Word

Danger

Named Chemicals on Label

2,4,6-tris(dimethylaminomethyl)phenol, Tetraethylenepentamine, Fatty acids,C18 unsat, reaction products with tetraethylenepentamine

HAZARD STATEMENTS

Skin Corrosion, category 1B	H314-1B	Causes severe skin burns and eye damage.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, Acute, category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment, Chronic, category 1	H410	Very toxic to aquatic life with long lasting effects.

PRECAUTION PHRASES

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/ face protection.
P301+310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301+330+331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

ADDITIONAL INFORMATION

REACH n° 01-2119487290-37 (covered by cas 90640-66-7) fatty acids, tall-oil, reaction products with tetraethylenepentamine 01-2119487006-38 (covered by cas1226892-45-0)

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

Name According to EEC EINEC No. CAS-No. REACH Reg No.	%	Classifications	SCL Value: ATE Value: M-Factor:	
Fatty acids,C18 unsat, reaction products with tetraethylenepentamine 629-725-6 1226892-45-0 01-2119487006-38	75-100	H314-317-400-410 Aquatic Acute 1, Aquatic Chronic 1, Skin Corr. 1C, Skin Sens. 1	SCL Value: ATE Value: M-Factor: (acute) M-Factor: (chronic)	- - 1 1
2,4,6-tris(dimethylaminomethyl) phenol 202-013-9 90-72-2 01-2119560597-27 603-069-00-0	10 - <25	H302-314 Acute Tox. 4 Oral, Skin Corr. 1C	SCL Value: ATE Value: M-Factor: (acute) M-Factor: (chronic)	- - - -

Tetraethylenepentamine 203-986-2 112-57-2 01-2119487290-37 612-060-00-0	2.5 - <10	H302-312-314-317-411 Acute Tox. 4 Dermal, Acute Tox. 4 Oral, Aquatic Chronic 2, Skin Corr. 1B, Skin Sens. 1	SCL Value: ATE Value: M-Factor: (acute) M-Factor: (chronic)	- - - -

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. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. 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

Harmful in contact with skin. Causes burns. Causes severe burns. Irritating to skin. Risk of serious damage to eyes. May cause sensitization by skin contact. Harmful by inhalation and if swallowed. Very toxic to aquatic organisms. Causes serious eye damage.

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

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

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)

The mixing and application to be in accordance with the technical data sheets.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with Occupational Exposure Limits
(EU)

Name	CAS-No.	LTEL ppm	STEL ppm	STEL mg/m3	LTEL mg/m3
Fatty acids,C18 unsat, reaction products with tetraethylenepentamine	1226892-45-0				
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2				
Tetraethylenepentamine	112-57-2				

Name	CAS-No.	OEL Note
Fatty acids,C18 unsat, reaction products with tetraethylenepentamine	1226892-45-0	
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2	
Tetraethylenepentamine	112-57-2	

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:

Fatty acids,C18 unsat, reaction products with tetraethylenepentamine

EC No.: 629-725-6

CAS-No.: 1226892-45-0

DNELs - Derived no effect level

	Workers				Consumers			
Route of Exposure	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						0.5 mg/kg bw/ day	
Inhalation				9.87 mg/m³				1.74 mg/m³
Dermal				1.4 mg/kg bw/ day				0.5 mg/kg bw/ day

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	30.7 µg/L
Fresh water sediments	119.8 mg/kg sediment dw
Marine water	3.07 µg/L
Marine sediments	11.98 mg/kg sediment dw
Food chain	20 mg/kg food
Microorganisms in sewage treatment	2.3 mg/L
soil (agricultural)	9.44 mg/kg soil dw
Air	

Chemical Name:

Tetraethylenepentamine

EC No.: 203-986-2

CAS-No.: 112-57-2

DNELs - Derived no effect level

	Workers				Consumers			
Route of Exposure	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					26 mg/kg bw/ day		0.53 mg/kg bw/ day
Inhalation		6940 mg/m3		1.29 mg/m3		2071 mg/m3		0.38 mg/m3
Dermal			0.036 mg/cm2	0.74 mg/kg bw/ day	1.29 mg/cm2	10 mg/kg bw/ day	0.56 mg/cm2	0.32 mg/cm2

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	0.0068 mg/L
Fresh water sediments	0.341 mg/kg¨
Marine water	0.0068 mg/L
Marine sediments	0.746 mg/kg
Food chain	
Microorganisms in sewage treatment	
soil (agricultural)	0.274 mg/kg
Air	

8.2 Exposure controls

Personal Protection

RESPIRATORY PROTECTION: Respirator with a vapour filter (EN 14387:2004+A1:2008). 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). When painting small areas, or when using a roller or brush, respiratory protection with combination filter (dust and gas filter, EN 14387:2004+A1:2008) may be used: Gas filter type A2 (organic substances). Dust filter P3 (for fine dust).

EYE PROTECTION: Face-shield. Safety glasses with side-shields conforming to 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). 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. Use chemical resistant gloves (EN 374): Butyl rubber. Use chemical resistant gloves (EN 374): Neoprene, nitril rubber, butyl rubber. Protective gloves complying with EN 374: Neoprene. Nitrile rubber. Recommended glove material for mixed product: Protective gloves complying with EN 374: Butyl rubber. Nitril rubber.

Body Protection: Long sleeved clothing.
Remove and wash contaminated clothing before re-use.

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:	VISCOUS LIQUID
Physical State	Liquid
Odor	Ammonia
Odor threshold	Not determined
pH	12
Melting point / freezing point (°C)	Not determined
Boiling point or initial boiling point and boiling range (°C)	130 - 260
Flash Point, (°C)	93
Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Llower and upper explosive limit	Not determined
Vapour Pressure	Not determined
Relative vapour density	> 1 (air = 1)
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

Specific Gravity (g/cm3)	0.95

SECTION 10: Stability and Reactivity

10.1 Reactivity
No reactivity hazards known under normal storage and use conditions. No reactivity hazards known under recommended storage and use conditions.

10.2 Chemical stability
Stable under recommended storage conditions. Stable under normal conditions.

10.3 Possibility of hazardous reactions
Hazardous polymerisation does not occur. No reactivity hazards known under recommended storage and use conditions. 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
Strong oxidizing agents. 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 (NOx), aliphatic amines, aldehydes. Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), aliphatic amines, aldehydes, cyanides. Carbon monoxide (CO), carbon dioxide (CO2), oxides of nitrogen (NOx).

SECTION 11: Toxicological information

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

Acute Toxicity:

Oral LD50:	No information available.
Inhalation LC50:	No information available.
Dermal LD50:	No information available.
Irritation:	No Information
Corrosivity:	Skin corrosion, category 1B
Sensitization:	May cause an allergic skin reaction.
Repeated dose toxicity:	No information available.
Carcinogenicity:	No information available.
Mutagenicity:	No information available.
Toxicity for reproduction:	No information available.
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:

CAS-No.	Name According to EEC	Oral LD50	Dermal LD50	Vapor LC50	Gas LC50	Dust/Mist LC50
1226892-45-0	Fatty acids,C18 unsat, reaction products with tetraethylenepentamine	2500 mg/kg; 4750 mg/kg (oral-rat)	> 2000	No information	No information	No information
90-72-2	2,4,6-tris (dimethylaminomethyl)phenol	2000 mg/kg oral		2169 mg/kg oral	>20000	0.000
112-57-2	Tetraethylenepentamine	1716 mg/kg; 2140 mg/kg (oral-rat)	1260 mg/kg; 660 mg/kg (dermal-rabbit)	No information	No information	No information

Additional Information:

Corrosive - causes irreversible eye damage. N15.00000561 <undefined> N15.00000563 <undefined> Chronic exposure causes drying effect on the skin and eczema. Corrosive to skin. 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.**

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

CAS-No.	Name According to EEC	EC50 48hr	IC50 72hr	LC50 96hr
1226892-45-0	Fatty acids,C18 unsat, reaction products with tetraethylenepentamine	0.18 mg/L	0.638 mg/L	0.19 mg/L

90-72-2	2,4,6-tris(dimethylaminomethyl)phenol	718 mg/L (EC50, 96h, Palaeomonetes vulgaris)	84 mg/L (EC50, 72h, Desmodesmus subspicatus)

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	UN2735	UN2735	UN2735	UN2735
14.2	UN proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S (Fatty acids,C18 unsat, reaction products with tetraethylenepentamine, tetraethylenepentamine)	AMINES, LIQUID, CORROSIVE, N.O.S (Fatty acids,C18 unsat, reaction products with tetraethylenepentamine, tetraethylenepentamine)	AMINES, LIQUID, CORROSIVE, N.O.S (Fatty acids,C18 unsat, reaction products with tetraethylenepentamine, tetraethylenepentamine)	AMINES, LIQUID, CORROSIVE, N.O.S (Fatty acids,C18 unsat, reaction products with tetraethylenepentamine, tetraethylenepentamine)
14.3	Transport Hazard Class(es)	8	8	8	8
14.4	Packing Group	II	II	II	II
14.5	Enviromental Hazards	Environmental Hazardous: YES	Environmental Hazardous: YES	Marine pollutant: YES	Environmental Hazardous: YES

14.6 **Special precautions for user** Not applicable
EmS-No.: F-A , S-B

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:	VOC ready to use 196 g/l (subcat j 500 g/l)
Covered by Directive 2012/18/EC (Seveso III):	E2
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.
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.

Reasons for revision

Substance and/or Product Properties Changed in Section(s):
01 - Identification
09 - Physical and Chemical Properties
15 - Regulatory Information
Revision Statement(s) Changed

This Safety Data Sheet (SDS) has been revised to meet the new EU CLP requirements. There have been both formatting and content changes based on the CLP classification (if applicable), please review each section of the SDS for specific changes. .

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/m3	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 ≤ 10 µm.

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.