

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

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

Revision Date: 05/05/2023 **Product Identifier** 0746 1.1

PYROCLAD X1 PART A / **Product Name:**

PYROCLAD X1 CARBO-KIT

PART A

Version Number: 3

18/10/2021

Supercedes Date:

RGK0-30YF-U00F-20KA **UFI Code:**

No Nano Form:

1.2 Relevant identified uses of the

substance or mixture and uses

advised against

Fireproofing material. Advised against: others than recommended

Advised against: Home DIY applications.

Product to be mixed with:

Mixing ratio by volume Part A/ Part B:

PYROCLAD X1 PART B / PYROCLAD X1 CARBO-KIT PART B

Base component of 2 components coating - Industrial use.

1.3 Details of the supplier of the safety data sheet

Importer: None

Carboline Norge AS Manufacturer:

Postboks 593 3412 Lierstranda

Norway

Regulatory / Technical Information:

+47 32 85 73 00 +47 32 85 74 00

Tarka, Malgorzata - hms@carboline.com **Datasheet Produced by:**

CHEMTREC +1 703 5273887 (Outside US) Emergency telephone number:

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 Irritation, category 2 H315 Skin Sensitizer, category 1 H317

Eye Irritation, category 2 H319

Reproductive_ToxicityFD_category_1B H360FD

Hazardous to the aquatic environment, Chronic, H411

category 2

2.2 Label elements

Symbol(s) of Product







Signal Word

Danger

Named Chemicals on Label

2,2-bis-[4-(2,3-epoxipropoxi)phenyl]propane, boric acid

HAZARD STATEMENTS

Other EU extensions	EUH205	Contains epoxy constituents. May produce an allergic reaction.
Other EU extensions	EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
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.
Reproductive_ToxicityFD_category_1B	H360FD	May damage fertility. May damage the unborn child.
Hazardous to the aquatic environment, Chronic, category 2	H411	Toxic to aquatic life with long lasting effects.
PRECAUTION PHRASES		
	P202	Do not handle until all safety precautions have been read and understood.
	P260	Do not breathe dust/fume/gas/mist/vapours/spray.
	P273	Avoid release to the environment.
	P280	Wear protective gloves/protective clothing/eye protection/ face protection.
	P284	Wear respiratory protection.
	P302+352	IF ON SKIN: Wash with plenty of soap and water.
	P308+313	IF exposed or concerned: Get medical advice/attention
	P333+313	If skin irritation or rash occurs: Get medical advice/attention.
	P391	Collect spillage.
	P501	Dispose of contents/container to waste treatment/disposal facility in accordance with local, state, and federal regulations.

ADDITIONAL INFORMATION

ADD-40 Restricted to professional users.

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

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

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 EINECS No. CAS-No. REACH Reg No.	<u>%</u>	Classifications	SCL Value ATE Value M-Factor	
2,2-bis-[4-(2,3-epoxipropoxi) phenyl]propane 216-823-5	50 - <75	H315-317-319-411 Aquatic Chronic 2, Eye Irrit. 2, Skin Irrit. 2, Skin Sens. 1	SCL:	H319≥5 H315≥5
1675-54-3 01-2119456619-26			ATE:	-
			M-Factor:	-
boric acid 233-139-2 10043-35-3	25 - <50	H360FD Repr. 1B	SCL:	H360FD ≥ 5.5
01-2119486683-25			ATE:	-
			M-Factor:	-
titanium dioxide 236-675-5 13463-67-7	2.5 - <10		SCL:	-
01-2119489379-17			ATE:	-
			M-Factor:	-

5 - <10	SCL:	-
	ATE:	-
	M-Factor:	-
) - <2.5	SCL:	-
	ATE:	-
	M-Factor:	-
	-<2.5	ATE: M-Factor: SCL:

Remarks: CAS No 13463-67-7: Note 10

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

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: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. If eye irritation persists, consult a specialist.

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

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. Irritating to eyes and skin. Toxic effects for reproduction.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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, Water Fog

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. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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.

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

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

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

Use only in area provided with appropriate exhaust ventilation. Wear personal protective 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). People handling polyurethane or epoxy products must have received special training according to guidelines from the National Occupational Health and Safety Board.

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: Moisture. 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. Protect from frost. Store in upright position only. 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 (UK WELS)

<u>Name</u>	CAS-No.	LTEL ppm	STEL ppm	STEL mg/m3	LTEL mg/m3
2,2-bis-[4-(2,3-epoxipropoxi)phenyl]propane	1675-54-3				
boric acid	10043-35-3				
titanium dioxide	13463-67-7			10 (total dust)	4 (resp. dust)
carbon	7440-44-0			10 (Inh. dust)	4 (Resp. dust)

Siloxanes and Silicones, di-Me, reaction

67762-90-7 products with silica

2.4 (Resp. dust) 6 (Inh. dust)

OEL Note <u>Name</u> CAS-No. 2,2-bis-[4-(2,3-epoxipropoxi)phenyl]propane 1675-54-3

10043-35-3 boric acid

titanium dioxide 13463-67-7

7440-44-0 carbon

Siloxanes and Silicones, di-Me, reaction

products with silica

67762-90-7

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:

2,2-bis-[4-(2,3-epoxipropoxi)phenyl]propane

EC No.: CAS-No.: 216-823-5 1675-54-3

DNELs - Derived no effect level

	Workers				Consumers			
Route of	Acute effect	Acute effects	Chronic	Chronic effects	Acute effect	Acute effects	Chronic	Chronic effects
Exposure	local	systemic	effects local	systemic	local	systemic	effects local	systemic
Oral		Not required				0.75 mg/kg		0.75 mg/kg bw/
Inhalation		12.25 mg/m3		12.25 mg/m3		bw/day		day
Dermal		8.33 mg/kg		8.33 mg/kg bw/		3.571 mg/kg		3.571 mg/kg bw/
		bw/day		day		bw/day		day

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	0.006 mg/L
Fresh water sediments	0.996 mg/kg
Marine water	0.0006 mg/L
Marine sediments	0.0996 mg/kg
Food chain	
Microorganisms in sewage treatment	10 mg/L
soil (agricultural)	0.196 mg/kg
Air	

Chemical Name:

boric acid

EC No.: CAS-No.: 233-139-2 10043-35-3

DNELs - Derived no effect level

	Workers					Con	sumers	
Route of	Acute effect	Acute effects	Chronic	Chronic effects	Acute effect	Acute effects	Chronic	Chronic effects
Exposure	local	systemic	effects local	systemic	local	systemic	effects local	systemic
Oral		Not	required			0.98 mg/kg		0.98 mg/kg bw/
Inhalation				8.28 mg/m3		bw/day		day
Dermal		_		392 mg/kg bw/				4.15 mg/m3
				day				196 mg/kg bw/
					_			day

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	2.02 mg B/L
Fresh water sediments	
Marine water	2.02 mg B/L
Marine sediments	
Food chain	
Microorganisms in sewage treatment	
soil (agricultural)	5.4 mg B/L
Air	

Chemical Name:

titanium dioxide

EC No.: CAS-No.: 236-675-5 13463-67-7

DNELs - Derived no effect level

	Workers			Consumers				
Route of	Acute effect	Acute effects	Chronic	Chronic effects	Acute effect	Acute effects	Chronic	Chronic effects
Exposure	local	systemic	effects local	systemic	local	systemic	effects local	systemic
Oral		Not required					10 mg/m ³	700 mg/kg/ bw/
Inhalation			10 mg/m³		_			day
Dermal		_		_				

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	0.127 mg/L
Fresh water sediments	1000 mg/kg dw
Marine water	1 mg/L
Marine sediments	100 mg/kg dw
Food chain	1667 mg/kg (oral)
Microorganisms in sewage treatment	100 mg/kg
soil (agricultural)	100 mg/kg dw
Air	

8.2 Exposure controls

Personal Protection

RESPIRATORY PROTECTION: Wear a battery powered assisted air-fed mask during spraying operations and long-term exposure. When working in confined or poorly ventilated spaces, a battery powered assisted air-fed mask must be used. 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: 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 Grey

Physical State Liquid

Odor Characteristic
Odor threshold Not determined

pH Not determined

Melting point / freezing point (°C) Not determined

Boiling point or initial boiling point and Not determined

boiling range (°C)

Flash Point, (°C) >130

Evaporation rate Not determined
Flammability (solid, gas) Not determined

Lower and upper explosive limit

Vapour Pressure

Not determined

Not determined

Not determined

Not determined

Not determined

Not determined

1.07 - 1.11

Solubility in / Miscibility with water

Partition coefficient: n-octanol/water

Auto-ignition temperature (°C)

Not determined

Decomposition temperature (°C)

Not determined

Kinematic viscosity 4,800,000 - 6,300,000 cP

Particle characteristics Not applicable to liquids

9.2 Other information

VOC Content g/l: 17

Grams of VOC per liter of coating product as applied per ISO 11890-1 and/or ISO 11890-2.

Specific Gravity (g/cm3) 1.34

SECTION 10: Stability and Reactivity

10.1 Reactivity

No reactivity hazards known under recommended storage and use conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No reactivity hazards known under recommended storage and use conditions.

10.4 Conditions to avoid

Moisture. Avoid heat, sparks, flames and other ignition sources.

10.5 Incompatible materials

Strong acids and oxidizing agents. Reducing agents.

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.

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 on the product itself as the product is not tested.

No information available on the product itself as the product is not tested.

Dermal LD50: No information available on the product itself as the product is not tested.

Irritation: Irritating to eyes and skin.

Corrosivity: No information available.

Sensitization: May cause an allergic skin reaction.

Repeated dose toxicity: No information available.

Carcinogenicity: No information available.

Mutagenicity: No information available.

Toxicity for reproduction: This product contains one or more substances classified as toxic for reproduction.

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
1675-54-3	2,2-bis-[4-(2,3-epoxipropoxi) phenyl]propane	>2000 mg/kg (oral-rat)	>2000 mg/kg (dermal-rabbit)	No information	No information	No information
10043-35-3	boric acid	> 2000 mg/kg (rat)	> 2000 mg/kg (rabbit)	No information	No information	No information
13463-67-7	titanium dioxide	>5000 mg/kg (oral-rat)	10000 mg/kg	No information	No information	>6.82 mg/L (inh- rat-4h)
67762-90-7	Siloxanes and Silicones, di- Me, reaction products with silica	6350 mg/kg (oral-rat)	>2000 mg/kg (dermal-rat)	No information	No information	No information

Additional Information:

Chronic exposure causes drying effect on the skin and eczema. Repeated skin contact leads to irritation and to sensitisation, possible with cross-sensitisation to other epoxies. This product may contain Titanium Dioxide, which is listed by IARC as possibly carcinogenic to humans (Group 2B). This listing is based on inadequate evidence of carcinogenicity in humans and sufficient evidence in experimental animals. This classification is relevant when exposed to titanium dioxide in dust or powder form only, including cured product that is subject to sanding, grinding, cutting, or other surface preparation activities. The product is irritating to the eyes and may cause sensitisation to the respiratory system. Swallowing concentrated chemical may cause severe internal injury. 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

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):

IC50 72hr (Algae):

No information
No information
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 The product does not meet the criteria for PBT/vPvB in accordance with Annex XIII.

assessment:

12.6 Endocrine disrupting properties

Endocrine disrupting properties - Ecotoxicity

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
1675-54-3	2,2-bis-[4-(2,3-epoxipropoxi)phenyl]propane	2.7 mg/L (Daphnia magna)	9.4 mg/L (EC50, Selenastrum capricornutum))	1.5 mg/L (Oncorhynchus mykiss)
10043-35-3	boric acid	91 mg/L (Ceriodaphnia dubia)	52.4 mg/L (Pseudokirchneriella subcapitata)	79.7 mg/L (Pimephales promelas)
13463-67-7	titanium dioxide	>100 mg/l (EC50, 48h, Daphnia magna OECD202)	16 mg/l (EC50, 72h, Pseudokirchnerella subcapitata)	>100 mg/l (EC50, 96h, Oncorhynchus Mykiss OECD203)

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: 08 01 11*

Packaging Waste Code: 15 01 10*

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. (Bisphenol A epoxy resin)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A epoxy resin)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A epoxy resin)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A epoxy resin)
14.3	Transport Hazard Class(es)	9	9	9	9
14.4	Packing Group	Ш	III	III	III
14.5	Enviromental Hazards	Marine pollutant: Yes (Bisphenol A epoxy resin)	Marine pollutant: Yes (Bisphenol A epoxy resin)	Marine pollutant: Yes (Bisphenol A epoxy resin)	Marine pollutant: Yes (Bisphenol A epoxy resin)

14.6 Special precautions for user Not applicableEmS-No.: F-A, S-F

14.7 Maritime transport in bulk according to

IMO instruments

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: P-316215

WGK Class: 3

Covered by Directive 2012/18/EC (Seveso III): E2

Restrictions to product or to substances according to Annex XVII, Regulation (CE) 1907/2006:

Annex XIV - 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

10043-35-3 boric acid

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:

H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.

H360FD May damage fertility. May damage the unborn child. H411 Toxic to aquatic life with long lasting effects.

Reasons for revision

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) 1907/2006 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
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: Regulatory 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.