

Duasyjet Cyan FRL-SF liq

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Substance key: SXR093309

Revision Date: 03.06.2022

Version : 5 - 3 / EU

Date of printing : 21.02.2023

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

1.1. Product identifier

Trade name

Duasyjet Cyan FRL-SF liq

Material number: 197434

Chemical nature: C.I. Direct Blue 199 copper phthalocyanine dyestuff (in aqueous solution)

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

Relevant identified uses of the substance or mixture

Industry sector : Industrial Performance Chemicals
Paints, lacquers and varnishes industry
Polymers industry
Printing Inks Industry
Type of use : Colourant preparation

1.3. Details of the supplier of the safety data sheet

Identification of the company

Heubach Colorants Germany GmbH
Brüningstraße 50
65929 Frankfurt am Main
Telephone no. : +49 69 305 13619

Information about the substance/mixture

Product Stewardship
e-mail: SDS.PI.Europe@clariant.com

1.4. Emergency telephone number

00800-5121 5121 (24 h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Additional Labelling

EUH210 Safety data sheet available on request.

EUH208 Contains 5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1). May produce an allergic reaction.

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2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

No hazards to be specially mentioned.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1)	55965-84-9 613-167-00-5 01-2120764691-48	Acute Tox. 3; H301 Acute Tox. 2; H330 Acute Tox. 2; H310 Skin Corr. 1C; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH071 M-Factor (Acute aquatic toxicity): 100 M-Factor (Chronic aquatic toxicity): 100 specific concentration limit Skin Corr. 1C; H314 >= 0,6 % Skin Irrit. 2; H315 0,06 - < 0,6 % Eye Irrit. 2; H319 0,06 - < 0,6 % Skin Sens. 1A; H317 >= 0,0015 % Eye Dam. 1; H318	>= 0,0002 - < 0,0015

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		>= 0,6 %	
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For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Get medical advice/ attention if you feel unwell.
- If inhaled : Remove to fresh air.
- In case of skin contact : IF ON SKIN: Wash with plenty of soap and water.
- In case of eye contact : Rinse the affected eye with plenty of water, at the same time keep the unaffected eye well protected.
- If swallowed : If swallowed do not induce vomiting, seek medical advice and show safety datasheet or label

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No symptoms known currently.
- Risks : No hazards known at this time.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Water spray jet
Dry powder
Carbon dioxide (CO₂)
Alcohol-resistant foam
- Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting : In case of fire hazardous decomposition products may be produced such as:
Carbon monoxide
Carbon dioxide (CO₂)
Nitrogen oxides (NO_x)
Sulphur dioxide
Copper oxides
- None known.

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5.3 Advice for firefighters

Special protective equipment : Self-contained breathing apparatus
for firefighters

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Wear suitable protective equipment.

6.2 Environmental precautions

Environmental precautions : The product should not be allowed to enter drains, water
courses or the soil.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel,
acid binder, universal binder, sawdust).
Treat recovered material as described in the section "Disposal
considerations".

6.4 Reference to other sections

Information regarding Safe handling, see chapter 7.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : When used and handled appropriately no special measures
are needed

Advice on protection against : Normal measures for preventive fire protection.
fire and explosion

Hygiene measures : Wash hands before breaks and at the end of workday. Use
protective skin cream before handling the product. Take off
immediately all contaminated clothing and wash it before
reuse.

7.2 Conditions for safe storage, including any incompatibilities

Further information on : Keep container tightly closed. Protect from frost.
storage conditions

7.3 Specific end use(s)

Specific use(s) : No further recommendations.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
C.I. Direct Blue 199 CAS-No.: 90295-11-7	Workers	Inhalation	Long-term systemic effects	2,93 mg/m3
	Remarks:DNEL			
	Workers	Dermal	Long-term systemic effects	0,42 mg/kg bw/day
Remarks:DNEL				
	Consumers	Inhalation	Long-term systemic effects	0,72 mg/m3
Remarks:DNEL				
	Consumers	Dermal	Long-term systemic effects	0,21 mg/kg bw/day
Remarks:DNEL				
	Consumers	Oral	Long-term systemic effects	0,21 mg/kg bw/day
Remarks:DNEL				
5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1) CAS-No.: 55965-84-9	Workers	Inhalation	Long-term local effects	0,02 mg/m3
	Remarks:DNEL			
	Workers	Inhalation	Acute local effects	0,04 mg/m3
Remarks:DNEL				
	Consumers	Inhalation	Long-term local effects	0,02 mg/m3
Remarks:DNEL				
	Consumers	Inhalation	Acute local effects	0,04 mg/m3
Remarks:DNEL				
	Consumers	Oral	Long-term systemic effects	0,09 mg/kg bw/day
Remarks:DNEL				
	Consumers	Oral	Acute systemic effects	0,11 mg/kg bw/day
Remarks:DNEL				

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
C.I. Direct Blue 199 CAS-No.: 90295-11-7	Fresh water	0,1 mg/l
	Water (intermittent release)	1 mg/l
	Marine water	0,01 mg/l
	Fresh water sediment	0,37 mg/kg dry weight (d.w.)
	Marine sediment	0,037 mg/kg dry weight (d.w.)

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	Sewage treatment plant	200 mg/l
	Soil	0,015 mg/kg dry weight (d.w.)
	Oral	4,17 mg/kg food
5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1) CAS-No.: 55965-84-9	Fresh water	3,39 µg/l
	Marine water	3,39 µg/l
	Sewage treatment plant	0,23 mg/l
	Soil	0,01 mg/kg dry weight (d.w.)
	Intermittent use/release	3,39 µg/l
	Fresh water sediment	0,027 mg/kg dry weight (d.w.)
	Marine sediment	0,027 mg/kg dry weight (d.w.)

8.2 Exposure controls

Engineering measures

Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

Eye protection : Safety glasses

Hand protection

Remarks : Nitrile rubber gloves. Minimum breakthrough time (glove): not determined Minimum thickness (glove): not determined 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).

Skin and body protection : working clothes

Protective measures : Wear suitable protective equipment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : Liquid

Colour : dark blue

Odour : not specified

Odour Threshold : not required

Freezing point : approx. -5 °C

Boiling point : approx. 100 °C

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Upper explosion limit / upper flammability limit	:	not determined
Lower explosion limit / Lower flammability limit	:	not determined
Flash point	:	not determined
Auto-ignition temperature	:	not determined
Decomposition temperature	:	Stable up to boiling point.
pH	:	approx. 9,5 (20 °C) Concentration: 10 g/l
Viscosity		
Viscosity, dynamic	:	approx. 20 mPa.s (20 °C) Method: Brookf-Visc.RVT Sp.1
Solubility(ies)		
Water solubility	:	miscible
Partition coefficient: n-octanol/water	:	not determined
Vapour pressure	:	not determined
Relative density	:	no data available
Density	:	approx. 1,07 g/cm ³ (20 °C) Method: DIN 51757
Relative vapour density	:	not determined
Particle characteristics		
Particle size	:	Not applicable

9.2 Other information

Explosives	:	no data available
Oxidizing properties	:	no data available
Flammable solids		
Burning number	:	Not applicable
Metal corrosion rate	:	no data available
Evaporation rate	:	not determined
Minimum ignition energy	:	not determined
Molecular weight	:	no data available

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SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable

10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use. Stable

10.4 Conditions to avoid

Conditions to avoid : None known.

10.5 Incompatible materials

Materials to avoid : no data available

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

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

Acute toxicity

Product:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Method: internal test

Acute inhalation toxicity : Remarks: no data available

Acute dermal toxicity : Remarks: no data available

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Acute oral toxicity : LD50 (Rat): 64 mg/kg

Acute toxicity estimate: Method: Calculation method

Acute inhalation toxicity : LC50 (Rat, male and female): 0,171 mg/l
Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

GLP: yes

Assessment: Corrosive to the respiratory tract.

Acute toxicity estimate: Test atmosphere: dust/mist

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Method: Calculation method

Acute dermal toxicity : LD50 (Rabbit): 92,4 mg/kg

Acute toxicity estimate: Method: Calculation method

Skin corrosion/irritation

Product:

Species : Rabbit
Method : internal test
Result : No skin irritation

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Species : Rabbit
Method : OECD Test Guideline 404
Result : Corrosive after 1 to 4 hours of exposure
GLP : no

Serious eye damage/eye irritation

Product:

Species : rabbit eye
Method : internal test
Result : No eye irritation

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Species : Rabbit
Method : Other
Result : Risk of serious damage to eyes.
GLP : no

Respiratory or skin sensitisation

Product:

Test Type : Mouse local lymphnode assay
Species : Mouse
Assessment : non-sensitizing
Method : OECD Test Guideline 429
Result : non-sensitizing
GLP : yes

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

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Test Type : Maximisation Test
Species : Guinea pig
Method : OECD Test Guideline 406
Result : The product is a skin sensitiser, sub-category 1A.
GLP : yes

Assessment : Toxic if swallowed., Fatal in contact with skin., Fatal if inhaled., Causes severe skin burns and eye damage.
May cause an allergic skin reaction.

Germ cell mutagenicity

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Genotoxicity in vitro : Test Type: In vitro study
Metabolic activation: with and without metabolic activation
Result: Conflicting results have been seen in different studies.

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Rat
Cell type: Bone marrow
Application Route: Oral
Exposure time: <= 5 d
Dose: 1-5 x <= 28 mg/kg
Result: negative

Test Type: Micronucleus test
Species: Mouse
Application Route: Oral
Exposure time: <= 5 d
Dose: 1-5 x <= 20 - 30 mg/kg
Result: negative

Germ cell mutagenicity-Assessment : In vivo tests did not show mutagenic effects

Carcinogenicity

Product:

Carcinogenicity - Assessment : No information available.

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

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Reproductive toxicity

Product:

Reproductive toxicity - Assessment : No information available.

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Effects on fertility : Species: Rat, male and female
Application Route: Drinking water
Dose: 25 - 75 - 225 ppm
General Toxicity - Parent: NOAEL: 16,3 - 24,7 mg/kg body weight
General Toxicity F1: NOAEL: 16,3 - 24,7 mg/kg body weight
Method: Other
GLP: yes

Species: Rat, male and female
Application Route: Drinking water
Dose: 30 - 100 - 300 ppm
General Toxicity - Parent: NOAEL: 2,8 - 4,4 mg/kg body weight
General Toxicity F1: NOAEL: 22,7 - 28 mg/kg body weight
General Toxicity F2: NOAEL: 35,7 - 39,1 mg/kg body weight
Method: OECD Test Guideline 416
GLP: yes

Effects on foetal development : Species: Rat, male and female
Application Route: oral (gavage)
Dose: <= 15 mg/kg
Developmental Toxicity: NOAEL: 15 mg/kg body weight
Method: Other

Species: Rat, male and female
Application Route: oral (gavage)
General Toxicity Maternal: NOAEL: <= 3,95 mg/kg body weight
Method: Other

Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity
Embryotoxicity classification not possible from current data.

STOT - single exposure

Product:

Remarks : no data available

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Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Product:

Remarks : no data available

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Product:

Remarks : This information is not available.

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Species : Rat, male and female
NOAEL : 16,3 - 24,7 mg/kg
Application Route : Drinking water
Exposure time : 90 d
Number of exposures : daily
Dose : 25 - 75 - 225 ppm
Control Group : yes
Method : Other
GLP : yes

Aspiration toxicity

Product:

no data available

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

No aspiration toxicity classification

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11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Further information

Product:

Remarks : Information refers to the main component.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : LC0 (Oncorhynchus mykiss (rainbow trout)): 300 mg/l
Exposure time: 48 h
Method: internal test

Toxicity to daphnia and other aquatic invertebrates : Remarks: no data available

Toxicity to algae/aquatic plants : Remarks: no data available

Toxicity to fish (Chronic toxicity) : Remarks: no data available

Toxicity to microorganisms : IC50 (activated sludge): > 100 mg/l
End point: Bacteria toxicity (respiration inhibition)
Method: OECD Test Guideline 209

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Toxicity to fish : EC50 (Oncorhynchus mykiss (rainbow trout)): 0,22 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,1 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Skeletonema costatum (marine diatom)): 0,0052 mg/l
Exposure time: 48 h
Test Type: static test

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Method: OECD Test Guideline 201

NOEC (Skeletonema costatum (marine diatom)): 0,00049 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 100

Toxicity to microorganisms : EC50 (activated sludge): 7,92 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

Toxicity to fish (Chronic toxicity) : NOEC: 0,098 mg/l
Exposure time: 28 d
Species: Oncorhynchus mykiss (rainbow trout)
Method: OECD Test Guideline 215

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,004 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 202

M-Factor (Chronic aquatic toxicity) : 100

Toxicity to soil dwelling organisms : LC50:
86,6 mg/kg dry weight (d.w.)
Exposure time: 14 d
Species: Eisenia fetida (earthworms)
Method: OECD Test Guideline 207

NOEC:
8,83 mg/kg dry weight (d.w.)
Exposure time: 14 d
Species: Eisenia fetida (earthworms)
Method: OECD Test Guideline 207

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

Product:

Biodegradability : Biodegradation: approx. 10 %
Method: internal test

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Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Biodegradability : Test Type: aerobic
Inoculum: activated sludge
Result: Not rapidly biodegradable
Method: OECD Test Guideline 301B

Photodegradation : Test Type: water
Light source: Sunlight

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: no data available

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Bioaccumulation : Bioconcentration factor (BCF): 3,6
Method: calculated
Remarks: Does not accumulate in organisms.

Partition coefficient: n-octanol/water : log Pow: -0,71 - 0,75
Method: OECD Test Guideline 107
GLP: yes

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation

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(EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Environmental fate and pathways : no data available

Additional ecological information : Determined in the undiluted form

Components:

5-Chloro-2-methyl-2,3-dihydroisothiazol-3-one and 2-Methyl-2,3-dihydroisothiazol-3-one (3:1):

Additional ecological information : The product should not be allowed to enter drains, water courses or the soil.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Product should be taken to a suitable and authorized waste disposal site in accordance with relevant regulations and if necessary after consultation with the waste disposal operator and/or the competent Authorities

Contaminated packaging : This material and its container must be disposed of in a safe way.

SECTION 14: Transport information

Section 14.1. to 14.5.

ADR	not restricted
ADN	not restricted
RID	not restricted
IATA	not restricted
IMDG	not restricted

14.6. Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7. Maritime transport in bulk according to IMO instruments

No transport as bulk according IBC - Code.

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SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	: Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	: Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	: Not applicable
Council Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors	: Neither banned nor restricted
Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	: Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	: Not applicable

Other regulations:

Apart from the data/regulations specified in this chapter, no further information is available concerning safety, health and environmental protection.

15.2 Chemical safety assessment

No Chemical Safety Assessment (CSA) is yet available for the substance, or for the component substances, contained in this product.

SECTION 16: Other information

Full text of H-Statements

H301	: Toxic if swallowed.
H310	: Fatal in contact with skin.
H314	: Causes severe skin burns and eye damage.
H317	: May cause an allergic skin reaction.
H318	: Causes serious eye damage.
H330	: Fatal if inhaled.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.
EUH071	: Corrosive to the respiratory tract.

Full text of other abbreviations

Acute Tox.	: Acute toxicity
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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



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Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Skin Corr.	:	Skin corrosion
Skin Sens.	:	Skin sensitisation

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

This information corresponds to the present state of our knowledge and is intended as a general description of our products and their possible applications. Heubach makes no warranties, express or implied, as to the information's accuracy, adequacy, sufficiency or freedom from defect and assumes no liability in connection with any use of this information. Any user of this product is responsible for determining the suitability of Heubach's products for its particular application. Nothing included in this information waives any of Heubach's General Terms and Conditions of Sale, which control unless it agrees otherwise in writing. Any existing intellectual/industrial property rights must be observed. Due to possible changes in our products and applicable national and international regulations and laws, the status of our products could change. Material Safety Data Sheets providing safety precautions, that should be observed when handling or storing Heubach products, are available upon request and are provided in compliance with applicable law. You should obtain and review the applicable Material Safety Data Sheet

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