

## **SECTION 1. Identification of the substance/mixture and of the company/enterprise**

### **1.1. Product identifier**

Product name : MICROCID-F

Product code: refer to sales department

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

Specific Treatment

Sectors of use:

Manufacture of food products[SU4]

Product category:

Additive for enological use

Not recommended uses

Do not use for purposes other than those listed

### **1.3. Details of the supplier of the safety data sheet**

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#### **1.4. Emergency telephone number**

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## **SECTION 2. Hazards identification**

#### **2.1. Classification of the substance or mixture**

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:

GHS05

Hazard Class and Category Code(s):

Eye Dam. 1

Hazard statement Code(s):

H318 - Causes serious eye damage.

If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

2.1.2 Additional information:

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

#### **2.2. Label elements**

Labelling according to Regulation (EC) No 1272/2008:



Pictogram, Signal Word Code(s):

GHS05 - Danger

Hazard statement Code(s):

H318 - Causes serious eye damage.

Supplemental Hazard statement Code(s):

EUH031 - Contact with acids liberates toxic gas (SO2)

Precautionary statements:

Prevention

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

**Response**

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTER or a doctor.

Contains: Potassium metabisulfite

Ingredients: potassium sorbate 45% (60 g/hL bring about 200 mg/l of sorbic acid), fumaric acid 39%, potassium metabisulfite(a) 10% (60 g/hL will increase the total SO2 by 34,09mg/l), ascorbic acid 6%.

Food use, oenological use. Not intended for the final consumer. In accordance with current regulations on the specific matter. Only for industrial use.

(a)=sulfites (< Sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10 mg/litre expressed as SO2> in compliance with Regulation (EU) No 1169/2011 - Annex II and subsequent additions and modifications)

### 2.3. Other hazards

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

The use of this chemical agent implies the obligation of the "risk assessment" by the employer according to the provisions of Legislative Decree April 9, 2008 no. 81 and subsequent amendments. If the results of the risk assessment demonstrate that, in relation to the type, quantity, methods and frequency of exposure, there is only a low risk for the safety and irrelevant for the health of the workers and that the measures referred to in paragraph 1 of Legislative Decree April 9, 2008 no. 81 are sufficient to reduce the risk, the provisions of articles 225, 226, 229, 230 of the same Legislative Decree do not apply

Do not ingest. Keep out of reach of children.

## SECTION 3. Composition/information on ingredients

### 3.1 Substances

Irrilevant

### 3.2 Mixtures

Substance	Concentration[ w/w]	Classification	Index	CAS	EINECS	REACH
Potassium (E,E)-hexa-2,4-dienoate	>= 25 < 50%	Eye Irrit. 2, H319	019-003-00-3	24634-61-5	246-376-1	exempt, art 2 par. 5
Fumaric acid	>= 25 < 50%	Eye Irrit. 2, H319	607-146-00-x	110-17-8	203-743-0	exempt, art 2 par. 5
Potassium metabisulfite	>= 9 < 10%	EUH031; Skin Irrit. 2, H315; Eye Dam. 1, H318		16731-55-8	240-795-3	exempt, art 2 par. 5

**SECTION 4. First aid measures****4.1. Description of first aid measures****Inhalation:**

Ventilate the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.

**Direct contact with skin (of the pure product):**

Wash thoroughly with soap and running water.

**Direct contact with eyes (of the pure product):**

Wash immediately and thoroughly with running water, keeping eyelids open for at least 10 minutes, then protect your eyes with a dry sterile gauze. Seek medical advice immediately

Do not use eye drops or ointments of any kind before the examination or advice from an oculist.

**Ingestion:**

Not dangerous. In case of malaise consult a doctor.

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

In case of contact with eyes it may cause redness, tearing, serious lesions.

Prolonged contact with the skin in sensitive subjects may cause skin irritation.

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

If you feel unwell, contact a doctor or go to the emergency room, if possible, with this document. Symptomatic treatment

**SECTION 5. Firefighting measures****5.1. Extinguishing media****Suggested extinguishing media:**

Water spray, CO<sub>2</sub>, foam, dry chemical, depending on the materials involved in the fire.

**Extinguishing media to avoid:**

Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

**5.2. Special hazards arising from the substance or mixture**

No data available.

**5.3. Advice for firefighters**

Use protection for the breathing apparatus

Safety helmet and full protective clothing.

The water spray can be used to protect the people involved in the extinction.

You may also use self-contained breathing apparatus, especially when working in confined and poorly ventilated areas.

Keep containers 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:

Leave the area surrounding the spill or release. Do not smoke  
Wear mask, gloves and protective clothing.

#### 6.1.2 For emergency responders:

Eliminate all unguarded flames and possible sources of ignition. No smoking.  
Provide a sufficient ventilation.  
Evacuate the danger area and, in case, consult an expert.

### **6.2. Environmental precautions**

Contain spills

Inform the competent authorities.

Dispose of the waste material in compliance with the regulations

### **6.3. Methods and material for containment and cleaning up**

#### 6.3.1 Containment:

Rapidly recover the product, wear a mask and protective clothing (for specifications refer to section 8.2. SDS)  
Recover the product for reuse, if possible, or for elimination.

#### 6.3.2 Cleaning up:

After wiping up, wash with water the area and materials involved

#### 6.3.3 Other information:

None in particular.

### **6.4. Reference to other sections**

Refer to paragraphs 8 and 13 for more information

## **SECTION 7. Handling and storage**

### **7.1. Precautions for safe handling**

Wear protective gloves/protective clothing/eye protection/face protection.

At work do not eat or drink.

See also paragraph 8 below.

### **7.2. Conditions for safe storage, including any incompatibilities**

Keep in original container closed tightly. Do not store in open or unlabelled containers.

Keep containers upright and safe by avoiding the possibility of falls or collisions.

Store in a cool and dry place, away from heat sources and direct exposure to sunlight.

### **7.3. Specific end use(s)**

Manufacture of food products:

Handle with care. Store in a clean, dry and ventilated place, away from heat and direct sunlight. Store in the original container, tightly closed.

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

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Related to contained substances:

Potassium metabisulfite:

Sulphur dioxide (7446-09-5) EU

8h\*TWA= 1.3 mg/m3 - 0.5 ppm

Short term\*\*= 2.7 mg/m3 - 1 ppm

\* Measured or calculated in relation to a reference period of eight hours, as a time weighted average

\*\* Short-term exposure level. Limit value above which exposure should not occur and which refers to a 15-minute period unless otherwise stated.

ACGIH - STEL: 0.25 ppm - Notes: (SO2)

- Substance: Fumaric acid

DNEL

Systemic effects Long term Workers inhalation = 75 (mg/m3)

Systemic effects Long term Workers dermal = 50 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 53 (mg/m3)

Systemic effects Long term Consumers dermal = 30 (mg/kg bw/day)

Systemic effects Long term Consumers oral = 30 (mg/kg bw/day)

Systemic effects Short term Workers inhalation = 175 (mg/m3)

Systemic effects Short term Workers dermal = 50 (mg/kg bw/day)

Systemic effects Short term Consumers inhalation = 53 (mg/m3)

Systemic effects Short term Consumers dermal = 30 (mg/kg bw/day)

Systemic effects Short term Consumers oral = 30 (mg/kg bw/day)

PNEC

Sweet water = 0,1 (mg/l)

Sea water = 0,01 (mg/l)

STP = 3 (mg/l)

- Substance: Potassium metabisulfite

DNEL

Systemic effects Long term Workers inhalation = 263 (mg/m3)

Systemic effects Long term Consumers inhalation = 78 (mg/m3)

Systemic effects Long term Consumers oral = 10 (mg/kg bw/day)

PNEC

Sweet water = 1,17 (mg/l)

Sea water = 0,12 (mg/l)

STP = 88,1 (mg/l)

### 8.2. Exposure controls



Appropriate engineering controls:

Manufacture of food products:

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

8.2.2 Individual protection measures:

(a) Eye / face protection

When handling the pure product use safety glasses (EN 166).

(b) Skin protection

(i) Hand protection

When handling the pure product for prolonged use or in the case of delicate subjects use protective gloves resistant to chemicals (EN 374-1/EN374-2/EN374-3)

(ii) Other

Wear normal work clothing.

(c) Respiratory protection

Not needed for normal use, unless otherwise provided by the employer and / or by assessments of environmental hygiene investigations

(d) Thermal hazards

No hazard to report

Environmental exposure controls:

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Related to contained substances:

Potassium (E,E)-hexa-2,4-dienoate:

Technical protective measures

Ventilate working environments.Dust collection system.Avoid the accumulation of electrostatic charges.

Exposure limit values: not applicable

Individual protections

Goggles:

PVC/rubber gloves:-request the manufacturer break time and permeation (EN 374 part III)

Dust mask:

Rebreather:

Eye rinse bottle with pure water.

General protective regulations and labour hygiene

Do not eat, drink or smoke when handling.

Wash hands thoroughly after work and change clothes.

## SECTION 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Physical state	Dust	
Colour	White	
Odour	not determined as considered not relevant for the characterization of the product	
Odour threshold	not determined as considered not relevant for the characterization of the product	
Melting point/freezing point	not determined as considered not relevant for the characterization of the product	
Boiling point or initial boiling point and boiling range	not determined as considered not relevant for the characterization of the product	

Physical and chemical properties	Value	Determination method
Flammability	not determined as considered not relevant for the characterization of the product	
Lower and upper explosion limit	not determined as considered not relevant for the characterization of the product	
Flash point	not determined as considered not relevant for the characterization of the product	ASTM D92
Auto-ignition temperature	not determined as considered not relevant for the characterization of the product	
Decomposition temperature	not determined as considered not relevant for the characterization of the product	
pH	3,5 ± 0,5 (20°C; sol. 5%)	
Kinematic viscosity	not determined as it is considered not relevant for the characterization of the product	
Solubility	in water	
Water solubility	partially soluble	
Partition coefficient n-octanol/water (log value)	not determined as considered not relevant for the characterization of the product	
Vapour pressure	not determined as considered not relevant for the characterization of the product	
Density and/or relative density	0,55 ± 0,05 (20°C)	
Relative vapour density	not determined as considered not relevant for the characterization of the product	
Particle characteristics	not determined as considered not relevant for the characterization of the product	

## 9.2. Other information

### 9.2.1 Information with regard to physical hazard classes

Irrilevant

### 9.2.2 Other safety characteristics

Irrilevant

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

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Related to contained substances:

Potassium (E,E)-hexa-2,4-dienoate:

Stable under normal conditions

The presence of impurities can cause degradation in the presence of light or air

Fumaric acid:

Stable under normal conditions

**10.2. Chemical stability**

No hazardous reaction when handled and stored according to provisions.

**10.3. Possibility of hazardous reactions**

There are no hazardous reactions

**10.4. Conditions to avoid**

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Related to contained substances:

Potassium (E,E)-hexa-2,4-dienoate:

Direct light.High temperatures

Fumaric acid:

Avoid the formation of electrostatic charges. Avoid exposure to heat sources. Avoid the formation of dust.

**10.5. Incompatible materials**

Strong acids and bases, oxidants, amines.

**10.6. Hazardous decomposition products**

In contact with acids it releases SO2

**SECTION 11. Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

(a) acute toxicity: based on available data, the classification criteria are not met

ATE(mix) oral = Not classified (no relevant component)

ATE(mix) dermal = Not classified (no relevant component)

ATE(mix) inhal = Not classified (no relevant component)

(b) skin corrosion/irritation: based on available data, the classification criteria are not met

(c) serious eye damage/irritation: b If brought into contact with the eyes, the product causes serious eye injuries, such as opacification of the cornea or injury to the iris.

(d) respiratory or skin sensitisation: based on available data, the classification criteria are not met

(e) germ cell mutagenicity: based on the available data, the classification criteria are not met.

(f) carcinogenicity: based on available data, the classification criteria are not met

(g) eproductivotoxicity: based on available data, the classification criteria are not met  
(h) specific target organ toxicity (STOT) single exposure: based on available data, the classification criteria are not met  
(i) specific target organ toxicity (STOT) repeated exposure: based on available data, the classification criteria are not met  
(j) aspiration hazard: based on available data, the classification criteria are not met

(a) acute toxicity:

Potassium (E,E)-hexa-2,4-dienoate: LD50 rat (mg / kg / 24h bw): 3800  
Skin contact - LC50 rat / rabbit (mg / kg / 24h bw): n.d.  
Inhalation - LD50 rat (mg / l / 4h): nd  
Fumaric acid: Ingestion - LD50 rat (mg / kg / 24h bw): 9300 (equivalent or similar to OECD Guideline 401)  
Skin contact - LC50 rat / rabbit (mg / kg / 24h bw): 2000 (equivalent or similar to OECD Guideline 402)  
Inhalation - LD50 rat (mg / l / 4h): not available  
Potassium metabisulfite: Based on available data, the classification criteria are not met  
Ingestion - LD50 rat (mg/kg/24h bw): >1540 - OECD 401  
Skin contact - LC50 rat / rabbit (mg/kg/24h bw): >2000 The product has not been tested. The declaration was derived from substances/products of similar structure or composition. - OECD 402  
Inhalation - LD50 rat (mg/l/4h): >5.5 The product has not been tested. The declaration was derived from substances/products of similar structure or composition. - OECD 403

(b) skincorrosion/irritation:

Potassium (E,E)-hexa-2,4-dienoate: Not corrosive  
Fumaric acid: Non corrosive (OECD Guideline 404 (Acute Dermal Irritation / Corrosion))  
Potassium metabisulfite: Based on available data, the classification criteria are not met.  
Corrosive to skin: Negative - In vitro - OECD 435  
Potassium (E,E)-hexa-2,4-dienoate: not classified  
Fumaric acid: Slightly irritating (OECD Guideline 404 (Acute Dermal Irritation / Corrosion))  
Potassium metabisulfite: The product is classified: Skin Irrit. 2  
Skin Irritant rabbit: Positive - OECD 404 Skin Irritant: Positive - In vitro - OECD 439

(c) serious eye damage/irritation:

Potassium (E,E)-hexa-2,4-dienoate: Not corrosive  
Fumaric acid: Non corrosive (OECD Guideline 405 (Acute Eye Irritation / Corrosion))  
Potassium metabisulfite: The product is classified: Eye Dam. 1  
Corrosive to eyes rabbit: Positive - OECD 405  
Potassium (E,E)-hexa-2,4-dienoate: Irritating  
Fumaric acid: Moderately irritating (OECD Guideline 405 (Acute Eye Irritation / Corrosion))  
Potassium metabisulfite: The product is classified: Eye Dam. 1  
Corrosive to eyes rabbit: Positive - OECD 405

(d) respiratoryorskinsensitisation:

Potassium (E,E)-hexa-2,4-dienoate: Not available  
Fumaric acid: Respiratory sensitization: not available Skin sensitization: not sensitizing (OECD Guideline 406 (Skin Sensitization))  
Potassium metabisulfite: Based on available data, the classification criteria are not met.  
Skin sensitisation: Negative - OECD 429

(e) germ cell mutagenicity: Potassium (E,E)-hexa-2,4-dienoate: Not available

Fumaric acid: Mammalian cell gene mutation assay (gene mutation): negative (Equivalent and similar to OECD Guideline 476)  
Mammalian chromosome aberration test (chromosome aberration): negative (equivalent or similar to OECD Guideline 473)  
Potassium metabisulfite: Based on available data, the classification criteria are not met.

(f) carcinogenicity:

Potassium (E,E)-hexa-2,4-dienoate: Not available  
Fumaric acid: unavailable  
Potassium metabisulfite: Based on available data, the classification criteria are not met.

**(g) eproductivotoxicity:**

Potassium (E,E)-hexa-2,4-dienoate: Not available

Fumaric acid: Effects on sexual function and fertility:

NOAEL (P):> 400 mg / kg bw / day (nominal) (male / female) (no effect observed)

NOAEL (F1):> 400 mg / kg bw / day (nominal) (no effect observed)

Potassium metabisulfite: Based on available data, the classification criteria are not met.

**(h) specific target organ toxicity (STOT) single exposure:**

Potassium (E,E)-hexa-2,4-dienoate: Not available

Fumaric acid: unavailable

Potassium metabisulfite: Based on available data, the classification criteria are not met.

**(i) specific target organ toxicity (STOT) repeated exposure**

Potassium (E,E)-hexa-2,4-dienoate: Not available

Fumaric acid: NOAEL: 600 mg / kg bw / day (nominal) (male) (equivalent or similar to OECD Guideline 452)

Potassium metabisulfite: Based on available data, the classification criteria are not met.

**(j) aspiration hazard:**

Potassium (E,E)-hexa-2,4-dienoate: Not available

Fumaric acid: Unavailable

Potassium metabisulfite: Based on available data, the classification criteria are not met.

**11.2. Information on other hazards**

No data available.

**11.2.1. Endocrine disrupting properties**

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

**SECTION 12. Ecological information****12.1. Toxicity**

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Related to contained substances:

Potassium (E,E)-hexa-2,4-dienoate:

Acute toxicity - LC50 fish (mg / l / 48h): n.d.

Acute toxicity - EC50 (mg / l / 48h) crustaceans: n.d.

Ergot acute algae ErC50 (mg / l / 72-96h): n.d.

Acute toxicity M-factor = 1

Chronic toxicity M-factor = 1

Fumaric acid:

Acute toxicity - fish LC50 (mg / l / 96h):> 100 Brachydanio rerio (new name: Danio rerio), freshwater, semi-static. (OECD Guideline 203)

Acute toxicity - crustaceans EC50 (mg / l / 48h):> 100 (Daphnia magna, freshwater, semi-static); 212 Daphnia magna, freshwater, static) (OECD Guideline 202)

Acute toxicity algae ErC50 (mg / l / 72-96h):> 100 Pseudokirchnerella subcapitata (algae), freshwater, static. Based on: biomass and growth rate. (OECD Guideline 201)

Acute toxicity of aquatic microorganisms EC50 (mg / L / 3h):> 300 activated sludge of a predominantly domestic

sewage; fresh water, static. Based on: respiration rate. (OECD Guideline 209)

Chronic toxicity - fish NOEC (mg / l): not available

Chronic toxicity - crustaceans NOEC (mg / l): not available

Chronic toxicity algae NOEC (mg / l): 100 Pseudokirchnerella subcapitata (algae), fresh water , static. Based on: biomass and growth rate. (OECD Guideline 201)

Acute toxicity M-factor = 1

Chronic toxicity M-factor = 1

Potassium metabisulfite:

Acute toxicity - fish LC50 (mg/l/96h): 149.5 - O. mykiss

Acute toxicity - crustaceans EC50 (mg/l/48h): 74.9 - Daphnia cladoceran Daphnia magna Acute toxicity algae ErC50 (mg/l/72-96h): 36.8 - Algae Scenedesmus subspicatus

Chronic toxicity - fish NOEC (mg/l):50 - Danio rerio

Chronic toxicity - crustaceans NOEC (mg/l): 8.41 - Daphnia cladoceran Daphnia magna Chronic toxicity algae NOEC (mg/l): 28 - Scenedesmus subspicatus

Acute toxicity M-factor = 1

Chronic toxicity M-factor = 1

Use according to good working practices and avoid to disperse the product into the environment.

## **12.2. Persistence and degradability**

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Related to contained substances:

Potassium (E,E)-hexa-2,4-dienoate:

Not available

Fumaric acid:

Degradability:

Abiotic degradation:

Hydrolysis: According to REACH regulation 1907/2006, annex VIII, column 2, this assessment is not required if the substance is readily biodegradable.

Phototransformation in air: Not required

Biotic Degradation:

Aquatic Environment:

Method: OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

Test type: ready biodegradability activated sludge, domestic, non-adapted

Results:% degradation of the test substance: Degr %. 60.3 after 11 d (CO2 Evolution) Degr%. 67.5 after 28 d (CO2 Evolution) Value used for CSA: Biodegradation in water: readily biodegradable

Potassium metabisulfite:

The substance is an inorganic compound, and therefore cannot be subject to biodegradation

## **12.3. Bioaccumulative potential**

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Related to contained substances:

**Potassium (E,E)-hexa-2,4-dienoate:**

Not available

**Fumaric acid:**

According to REACH regulation 1907/2006 (Annex IX - 9.3.2, column 2) the bioaccumulation test is not necessary if the substance has a low bioaccumulation potential calculated on the basis of a log Kow value <3. The value experimentally determined by the Log Kow is 0.46, this implies a low potential for bioaccumulation.

**Potassium metabisulfite:**

No bioaccumulation is expected

**12.4. Mobility in soil**

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**Related to contained substances:****Potassium (E,E)-hexa-2,4-dienoate:**

Not available

**Fumaric acid:**

Adsorption / desorption: According to REACH regulation 1907/2006, Annex VIII - 9.3.1 column 2, screening tests for adsorption / desorption do not need to be conducted when the substance has a low adsorption potential calculated on the basis of a log Kow of 0.46

**Potassium metabisulfite:**

No adsorption into the solid phase of the soil is expected.

**12.5. Results of PBT and vPvB assessment**

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

**12.6. Endocrine disrupting properties**

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

**12.7. Other adverse effects**

No adverse effects

**SECTION 13. Disposal considerations****13.1. Waste treatment methods**

Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies.

Recover if possible. Operate according to local or national regulations

**SECTION 14. Transport information**

**14.1. UN number or ID number**

Not included in the field of application of regulations concerning the transport of dangerous goods: by road (ADR); by rail (RID); by air (ICAO / IATA); by sea (IMDG).

**14.2. UN proper shipping name**

None

**14.3. Transport hazard class(es)**

None

**14.4. Packing group**

None

**14.5. Environmental hazards**

None

**14.6. Special precautions for user**

No data available.

**14.7. Maritime transport in bulk according to IMO instruments**

Transport in bulk is not foreseen

**SECTION 15. Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Restrictions relating to the product or the substances contained (Annex XVII EC Reg. 1907/2006): not applicable  
Substances in Candidate list (art. 59 EC Reg. 1907/2006): the product does not contain SVHC in percentage = a 0.1 %.

Regulation (EU) 1169/2011: see point 2.2  
Regulation (EU) 1308/2013; see point 2.2  
Regulation (EC) 1333/2008; see point 2.2

REGULATION (EU) No 1357/2014 - waste: HP4 - Irritant — skin irritation and eye damage  
Seveso III class (Dir EU 2012/18): n.a.

**15.2. Chemical safety assessment**

No chemical safety assessment was carried out by the supplier

**SECTION 16. Other information**

## **16.1. Other information**

Points modified compared to previous release: 3.2 Mixtures, 4.2. Most important symptoms and effects, both acute and delayed, 4.3. Indication of any immediate medical attention and special treatment needed, 7.3. Specific end use(s), 8.1. Control parameters, 8.2. Exposure controls 10.5. Incompatible materials, 10.6. Hazardous decomposition products, 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008, 11.2. Information on other hazards, 12.1. Toxicity, 12.2. Persistence and degradability, 12.3. Bioaccumulative potential, 12.4. Mobility in soil, 12.6. Endocrine disrupting properties

Description of hazard statements set out in paragraph 3

H319 = Causes serious eye irritation.

H315 = Causes skin irritation.

H318 = Causes serious eye damage.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

H318 - Causes serious eye damage. Classification procedure: Calculation method

Main normative references:

Reg. (CE) n. 1907 del 18/12/06 REACH (Registration, Evaluation and Authorisation of Chemicals) et seq.

Reg. (CE) 1272/2008 CLP (Classification Labelling and Packaging) et seq.

Directive 2012/18/EU (on the control of major-accident hazards involving dangerous substances) et seq.

Training required: This document must be submitted to the employer to determine the possible need for appropriate training for workers to ensure protection of human health and the environment.

n.a.: not applicable

n.d.: not available

ADR: Accord européen relatif au transport International des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

ATE: Acute Toxicity Estimat

BFC: BioconCentration Factor

BOD: Biochemical Oxigen Demand

CAS: Chemical Abstract Service number

CAP: Centre AntiPoison

CE/EC number EINECS (European Inventory of existing Commercial Substances) e ELINCS (European List of notified Chemical Substances)

CL50/LC50: Lethal Concentration 50

DL50/LD50: Lethal Dose 50

COD: Chemical Oxygen Demand

DNEL: Derived No Effect Level

EC50: half maximal Effective Concentration

ERC: Enviroment Release Classes

EU/UE: European Union

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IMDG: International Maritime Dangerous Goods code

Kow: Octanol water partition coefficient

NOEC: No Observed Effect Concentration

OEL: Occupational Exposure Limit

PBT: Persistent Bioaccumulative and Toxic

PC: Product Categories

PNEC: Predicted No Effect Concentration

PROC: Process Categories

RID: Règlement concernant le transport International ferroviaire des marchandises dangereuses (Regulations concerning International rail transport of dangerous goods)

STOT: Target Organ Systemic Toxicity

STOT (RE): Repeated Exposure

STOT (SE): Single Exposure

STP: Sewage Treatment Plants

SU: Sector of Use

SVCH: Substance of Very High Concern

TLV: Threshold Limit Value

vPvB: Very Persistent Very Bioaccumulative

**References and Sources:**

- ECHA Registered Substances:

<https://echa.europa.eu/web/guest/information-on-chemicals/registered-substances>

- SDS raw material supplier

- GESTIS International Limit Value: <http://limitvalue.ifa.dguv.de>

This msds was made in good faith by technical Office on the basis of the information available at the date of the last revision. The person in charge must regularly inform the employees about the specific risks they encounter when using this substance/product. The information contained here relate only to the substance/the preparation indicated and may not apply if the product is used improperly or in combination with others. Nothing contained herein shall be construed as a guarantee, either express or implied. It is the responsibility of the user to ensure the opportunities and completeness of the information contained herein for their own particular use.

\*\*\* this tab annuls and replaces any previous edition. (IIXX)

Changes to the previous edition: updating data and updating classification of raw materials