

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



## HA 430

Version 1.1	Revision Date: 31.05.2024	SDS Number: 50001962	Date of last issue: - Date of first issue: 10.06.2019
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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Product name HA 430

#### Other means of identification

Product code 50001962

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

Use of the Substance/Mixture : Nutrient composition for seed treatment

Recommended restrictions on use : Use as recommended by the label.  
For professional users only.

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

#### Supplier Address

FMC Agricultural Solutions A/S  
Thyborønvej 78  
DK-7673 Harboøre  
Denmark

Telephone: +45 9690 9690  
Telefax: +45 9690 9691  
E-mail address: SDS-Info@fmc.com .

### 1.4 Emergency telephone number

For leak, fire, spill or accident emergencies, call:  
Denmark: +45-69918573 (CHEMTREC)

Medical emergency:  
Denmark: +45 82 12 12 12

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification (REGULATION (EC) No 1272/2008)

Long-term (chronic) aquatic hazard, Category 2 H411: Toxic to aquatic life with long lasting effects.

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### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Hazard statements : H411 Toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**

P273 Avoid release to the environment.

**Response:**

P391 Collect spillage.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

#### Additional Labelling

EUH208 Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

### 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.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
trizinc bis(orthophosphate)	7779-90-0 231-944-3 030-011-00-6	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 10 - < 20

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		M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	
manganese carbonate	598-62-9 209-942-9	Aquatic Chronic 2; H411	>= 10 - < 20
ethanediol	107-21-1 203-473-3 603-027-00-1	Acute Tox. 4; H302 STOT RE 2; H373 (Kidney)	>= 1 - < 10
sodium acrylate	7446-81-3 231-209-7	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0,25 - < 1
1,2-benzisothiazol-3(2H)-one	2634-33-5 220-120-9 613-088-00-6	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 2; H411  M-Factor (Acute aquatic toxicity): 10  specific concentration limit Skin Sens. 1; H317 >= 0,05 %  Acute toxicity estimate  Acute oral toxicity: 490 mg/kg	>= 0,0025 - < 0,025

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice

- : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.

Protection of first-aiders

- : First Aid responders should pay attention to self-protection and use the recommended protective clothing  
Avoid inhalation, ingestion and contact with skin and eyes.

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If potential for exposure exists refer to Section 8 for specific personal protective equipment.

- If inhaled : Move to fresh air.  
If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : Take off all contaminated clothing immediately.  
Wash contaminated clothing before re-use.  
Wash off immediately with plenty of water for at least 15 minutes.  
Get medical attention immediately if irritation develops and persists.
- In case of eye contact : Flush eyes with water as a precaution.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Do not induce vomiting without medical advice.  
Keep respiratory tract clear.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.  
Take victim immediately to hospital.

### 4.2 Most important symptoms and effects, both acute and delayed

- Risks : None known.

### 4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media : Dry chemical, CO<sub>2</sub>, water spray or regular foam.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : High volume water jet  
Do not spread spilled material with high-pressure water streams.

### 5.2 Special hazards arising from the substance or mixture

- Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.

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Hazardous combustion products : Fire may produce irritating, corrosive and/or toxic gases.  
Ammonia  
Carbon oxides

### 5.3 Advice for firefighters

- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions : Do not touch or walk through the spilled material.  
If it can be safely done, stop the leak.  
Keep people away from and upwind of spill/leak.  
Use personal protective equipment.  
Never return spills in original containers for re-use.  
Mark the contaminated area with signs and prevent access to unauthorized personnel.  
Only qualified personnel equipped with suitable protective equipment may intervene.  
For disposal considerations see section 13.

### 6.2 Environmental precautions

- Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.

### 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).  
Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- Advice on safe handling : Do not breathe vapours/dust.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the ap-

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plication area.

Dispose of rinse water in accordance with local and national regulations.

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

Hygiene measures : Wash hands before breaks and at the end of workday.

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

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage stability : No decomposition if stored and applied as directed.

### 7.3 Specific end use(s)

Specific use(s) : Nutrient composition for seed treatment

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis	
manganese carbonate	598-62-9	TWA (inhalable fraction)	0,2 mg/m <sup>3</sup> (Manganese)	2017/164/EU	
		Further information: Indicative			
		TWA (Respirable fraction)	0,05 mg/m <sup>3</sup> (Manganese)	2017/164/EU	
		Further information: Indicative			
		GV (respirable)	0,05 mg/m <sup>3</sup> (Manganese)	DK OEL	
		GV (inhalable fraction)	0,2 mg/m <sup>3</sup> (Manganese)	DK OEL	
		S (respirable)	0,4 mg/m <sup>3</sup> (Manganese)	DK OEL	
		S (inhalable fraction)	0,1 mg/m <sup>3</sup> (Manganese)	DK OEL	
molybdic acid, disodium salt, dihydrate	10102-40-6	GV	10 mg/m <sup>3</sup> (Molybdenum)	DK OEL	
		GV	5 mg/m <sup>3</sup> (Molybdenum)	DK OEL	
		S	20 mg/m <sup>3</sup>	DK OEL	

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			(Molybdenum)	
		S	10 mg/m3 (Molybdenum)	DK OEL
ethanediol	107-21-1	TWA	20 ppm 52 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	40 ppm 104 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		GV	10 ppm 26 mg/m3	DK OEL
	Further information: Means that the substance can be absorbed through the skin., Guiding list of organic solvents.			
		GV (vaporized)	10 mg/m3	DK OEL
	Further information: Means that the substance can be absorbed through the skin., Guiding list of organic solvents.			
		S (vaporized)	20 mg/m3	DK OEL
	Further information: Means that the substance can be absorbed through the skin., Guiding list of organic solvents.			
		S	40 ppm 104 mg/m3	DK OEL
	Further information: Means that the substance can be absorbed through the skin., Guiding list of organic solvents.			

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

Substance name	End Use	Exposure routes	Potential health effects	Value
manganese carbonate	Workers	Inhalation	Long-term systemic effects	0,2 mg/m3
	Workers	Dermal	Long-term systemic effects	0,004 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	0,043 mg/m3
	Consumers	Dermal	Long-term systemic effects	0,0021 mg/kg bw/day
urea	Workers	Inhalation	Long-term systemic effects	292 mg/m3
	Workers	Inhalation	Acute systemic effects	292 mg/m3
	Workers	Dermal	Long-term systemic effects	580 mg/kg bw/day
	Workers	Dermal	Acute systemic effects	580 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	125 mg/m3
	Consumers	Inhalation	Acute systemic effects	125 mg/m3
	Consumers	Dermal	Long-term systemic effects	580 mg/kg bw/day
	Consumers	Dermal	Acute systemic ef-	580 mg/kg

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			fects	bw/day
	Consumers	Oral	Long-term systemic effects	42 mg/kg bw/day
	Consumers	Oral	Acute systemic effects	42 mg/kg bw/day
ethanediol	Workers	Inhalation	Long-term local effects	35 mg/m3
	Workers	Dermal	Long-term systemic effects	106 mg/kg
	Consumers	Inhalation	Long-term local effects	7 mg/m3
	Consumers	Dermal	Long-term systemic effects	53 mg/kg
1,2-benzisothiazol-3(2H)-one	Workers	Inhalation	Long-term systemic effects	6,81 mg/m3
	Workers	Dermal	Long-term systemic effects	0,966 mg/kg
	Consumers	Inhalation	Long-term systemic effects	1,2 mg/m3
	Consumers	Dermal	Long-term systemic effects	0,345 mg/kg

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

Substance name	Environmental Compartment	Value
manganese carbonate	Fresh water	0,0084 mg/l
	Intermittent use/release	0,011 mg/l
	Marine water	840 ng/l
	Sewage treatment plant	100 mg/l
	Fresh water sediment	8,18 mg/kg dry weight (d.w.)
	Marine sediment	0,810 mg/kg dry weight (d.w.)
	Soil	8,15 mg/kg dry weight (d.w.)
urea	Fresh water	0,47 mg/l
	Marine water	0,047 mg/l
ethanediol	Fresh water	10 mg/l
	Marine water	1 mg/l
	Sewage treatment plant	199,5 mg/l
	Fresh water sediment	37 mg/kg dry weight (d.w.)
	Marine sediment	3,7 mg/kg dry weight (d.w.)
	Soil	1,53 mg/kg dry weight (d.w.)
1,2-benzisothiazol-3(2H)-one	Fresh water	0,00403 mg/l
	Marine water	0,000403 mg/l
	Sewage treatment plant	1,03 mg/l
	Fresh water sediment	0,0499 mg/l
	Marine sediment	0,00499 mg/l

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### 8.2 Exposure controls

#### Personal protective equipment

- Eye/face protection : Eye wash bottle with pure water  
Tightly fitting safety goggles
- Hand protection  
Material : Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber.
- Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Skin and body protection : Impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Respiratory protection : No personal respiratory protective equipment normally required.
- Protective measures : Plan first aid action before beginning work with this product.  
Always have on hand a first-aid kit, together with proper instructions.  
Ensure that eye flushing systems and safety showers are located close to the working place.  
Wear suitable protective equipment.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- Physical state : liquid
- Colour : pink
- Odour : Barely perceptible
- Odour Threshold : No data available
- Melting point/freezing point : No data available
- Initial boiling point and boiling range : No data available
- Upper explosion limit / Upper flammability limit : No data available

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Lower explosion limit / Lower flammability limit : No data available

Flash point : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

pH : 7,5 - 9,5  
Concentration: 100 %

Viscosity  
Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Solubility(ies)  
Water solubility : dispersible

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Vapour pressure : No data available

Relative density : 1,39 - 1,43

Density : No data available

Bulk density : No data available

Relative vapour density : No data available

Particle characteristics  
Particle size : No data available

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Particle Size Distribution : No data available

Shape : No data available

### 9.2 Other information

Explosives : No data available

Oxidizing properties : No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No decomposition if stored and applied as directed.

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

### 10.4 Conditions to avoid

Conditions to avoid : Avoid extreme temperatures  
Protect from frost, heat and sunlight.

### 10.5 Incompatible materials

Materials to avoid : Avoid strong acids, bases, and oxidizers

### 10.6 Hazardous decomposition products

Toxic fumes

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## SECTION 11: Toxicological information

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

#### Acute toxicity

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

#### Product:

Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg  
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l

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Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 5.000 mg/kg  
Method: Calculation method

### Components:

#### **trizinc bis(orthophosphate):**

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC0 (Rat, male and female): > 5,7 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Remarks: Based on data from similar materials  
no mortality

#### **manganese carbonate:**

Acute oral toxicity : LD0 (Rat, female): > 2.000 mg/kg  
Method: OECD Test Guideline 420  
Remarks: no mortality

Acute inhalation toxicity : LC0 (Rat, male and female): > 5,35 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Remarks: no mortality  
Based on data from similar materials

#### **ethanediol:**

Acute inhalation toxicity : LC0 (Rat, male and female): > 2,5 mg/l  
Exposure time: 6 h  
Test atmosphere: dust/mist  
Remarks: no mortality

Acute dermal toxicity : LD50 (Mouse, male and female): > 3.500 mg/kg

#### **1,2-benzisothiazol-3(2H)-one:**

Acute oral toxicity : LD50 (Rat, male and female): 490 mg/kg  
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rat, male and female): > 2.000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity

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### Skin corrosion/irritation

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

#### Product:

Remarks : No data is available on the product itself.

#### Components:

##### **trizinc bis(orthophosphate):**

Species : Rabbit  
Exposure time : 5 d  
Method : OECD Test Guideline 404  
Result : No skin irritation  
Remarks : Based on data from similar materials

##### **manganese carbonate:**

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : No skin irritation

##### **ethanediol:**

Species : Rabbit  
Result : No skin irritation

##### **1,2-benzisothiazol-3(2H)-one:**

Species : Rabbit  
Exposure time : 72 h  
Method : OECD Test Guideline 404  
Result : No skin irritation

### Serious eye damage/eye irritation

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

#### Product:

Remarks : No data is available on the product itself.

#### Components:

##### **trizinc bis(orthophosphate):**

Species : Rabbit  
Exposure time : 72 h  
Method : OECD Test Guideline 405  
Result : No eye irritation

##### **manganese carbonate:**

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : No eye irritation

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### **ethanediol:**

Species : Rabbit  
Result : No eye irritation

### **1,2-benzisothiazol-3(2H)-one:**

Species : Bovine cornea  
Method : OECD Test Guideline 437  
Result : No eye irritation

Species : Rabbit  
Method : EPA OPP 81-4  
Result : Irreversible effects on the eye

### **Respiratory or skin sensitisation**

#### **Skin sensitisation**

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

#### **Respiratory sensitisation**

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

### **Product:**

Remarks : No data is available on the product itself.

### **Components:**

#### **trizinc bis(orthophosphate):**

Test Type : Maximisation Test  
Exposure routes : Dermal  
Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : Not a skin sensitizer.  
Remarks : Based on data from similar materials

#### **manganese carbonate:**

Test Type : Local lymph node test  
Species : Mouse  
Method : OECD Test Guideline 429  
Result : Does not cause skin sensitisation.  
Remarks : Based on data from similar materials

### **ethanediol:**

Test Type : Maximisation Test  
Species : Guinea pig  
Result : Does not cause skin sensitisation.

### **1,2-benzisothiazol-3(2H)-one:**

Test Type : Maximisation Test

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Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : May cause sensitisation by skin contact.

Species : Guinea pig  
Method : FIFRA 81.06  
Result : May cause sensitisation by skin contact.

### Germ cell mutagenicity

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

#### Components:

##### **trizinc bis(orthophosphate):**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test  
Result: negative  
Remarks: Based on data from similar materials

Test Type: reverse mutation assay  
Method: OECD Test Guideline 471  
Result: negative  
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: In vivo micronucleus test  
Species: Mouse (male and female)  
Application Route: Intraperitoneal injection  
Exposure time: 30 h  
Result: negative  
Remarks: Based on data from similar materials

##### **manganese carbonate:**

Genotoxicity in vitro : Test Type: reverse mutation assay  
Method: OECD Test Guideline 471  
Result: negative  
Remarks: Based on data from similar materials

Test Type: Chromosome aberration test in vitro  
Method: OECD Test Guideline 473  
Result: negative  
Remarks: Based on data from similar materials

Test Type: In vitro mammalian cell gene mutation test  
Method: OECD Test Guideline 476  
Result: negative  
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Micronucleus test  
Species: Mouse (female)  
Application Route: Oral  
Method: OECD Test Guideline 474  
Result: negative  
Remarks: Based on data from similar materials

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Germ cell mutagenicity- Assessment : Weight of evidence does not support classification as a germ cell mutagen.

### **ethanediol:**

Genotoxicity in vitro : Test Type: reverse mutation assay  
Method: OPPTS 870.5100  
Result: negative

Genotoxicity in vivo : Test Type: dominant lethal test  
Species: Rat  
Application Route: Oral  
Result: negative

### **1,2-benzisothiazol-3(2H)-one:**

Genotoxicity in vitro : Test Type: gene mutation test  
Test system: mouse lymphoma cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 476  
Result: negative

Test Type: Ames test  
Method: OECD Test Guideline 471  
Result: negative

Test Type: Chromosome aberration test in vitro  
Method: OECD Test Guideline 473  
Result: positive

Genotoxicity in vivo : Test Type: unscheduled DNA synthesis assay  
Species: Rat (male)  
Cell type: Liver cells  
Application Route: Ingestion  
Exposure time: 4 h  
Method: OECD Test Guideline 486  
Result: negative

Test Type: Micronucleus test  
Species: Mouse  
Application Route: Oral  
Method: OECD Test Guideline 474  
Result: negative

Germ cell mutagenicity- Assessment : Weight of evidence does not support classification as a germ cell mutagen.

### **Carcinogenicity**

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

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according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



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### Components:

#### **ethanediol:**

Species	:	Mouse
Application Route	:	Oral
Exposure time	:	24 month(s)
Result	:	negative

#### **Reproductive toxicity**

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

### Components:

#### **manganese carbonate:**

Effects on fertility	:	Test Type: Two-generation study Species: Rat, male and female Application Route: inhalation (dust/mist/fume) Dose: 0, .005, .01, .02 mg/L General Toxicity - Parent: NOEL: 0,02 mg/l Method: OECD Test Guideline 416 Result: negative Remarks: Based on data from similar materials
Effects on foetal development	:	Species: Rat Application Route: inhalation (dust/mist/fume) Duration of Single Treatment: 15 d General Toxicity Maternal: NOAEL: 0,025 mg/L Developmental Toxicity: LOAEL: 0,025 mg/L Embryo-foetal toxicity: NOAEL: 0,025 mg/L Method: OECD Test Guideline 414 Result: negative Remarks: Based on data from similar materials
Reproductive toxicity - Assessment	:	Weight of evidence does not support classification for reproductive toxicity

#### **1,2-benzisothiazol-3(2H)-one:**

Effects on fertility	:	Species: Rat, male Application Route: Ingestion General Toxicity - Parent: NOAEL: 18,5 mg/kg body weight General Toxicity F1: NOAEL: 48 mg/kg body weight Fertility: NOAEL: 112 mg/kg bw/day Symptoms: No effects on reproduction parameters Method: OPPTS 870.3800 Result: negative
Reproductive toxicity - Assessment	:	Weight of evidence does not support classification for reproductive toxicity

#### **STOT - single exposure**

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

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### Components:

#### **manganese carbonate:**

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

#### **STOT - repeated exposure**

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

### Components:

#### **ethanediol:**

Exposure routes : Oral  
Target Organs : Kidney  
Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

#### **1,2-benzisothiazol-3(2H)-one:**

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

### **Repeated dose toxicity**

### Components:

#### **manganese carbonate:**

Species : Rabbit, male  
LOAEC : 0,0039 mg/l  
Application Route : Inhalation  
Test atmosphere : dust/mist  
Exposure time : 4 - 6 weeks  
Dose : 0, .001, .0039 mg/L  
Remarks : Based on data from similar materials

#### **ethanediol:**

Species : Rat  
NOAEL : 150 mg/kg  
Application Route : Oral  
Exposure time : 12 Months

Species : Dog  
NOAEL : > 2.200 - < 4.400 mg/kg  
Application Route : Dermal  
Exposure time : 4 Weeks  
Method : OECD Test Guideline 410

#### **1,2-benzisothiazol-3(2H)-one:**

Species : Rat, male and female  
NOAEL : 15 mg/kg  
Application Route : Ingestion

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Exposure time	:	28 d
Method	:	OECD Test Guideline 407
Symptoms	:	Irritation
Species	:	Rat, male and female
NOAEL	:	69 mg/kg
Application Route	:	Ingestion
Exposure time	:	90 d
Symptoms	:	Irritation, Reduced body weight

### Aspiration toxicity

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

## 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.
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### Further information

#### Product:

Remarks	:	No data available
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## SECTION 12: Ecological information

### 12.1 Toxicity

#### Components:

##### **trizinc bis(orthophosphate):**

Toxicity to fish	:	LC50 (Thymallus arcticus): 0,112 mg/l Exposure time: 96 h Test Type: static test Remarks: Based on data from similar materials
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LC50 (Oncorhynchus kisutch (coho salmon)): 0,727 mg/l Exposure time: 96 h Test Type: static test Remarks: Based on data from similar materials
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LC50 (Oncorhynchus mykiss (rainbow trout)): 0,169 mg/l Exposure time: 96 h Test Type: static test Remarks: Based on data from similar materials
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LC50 : 0,439 mg/l  
Exposure time: 96 h  
Test Type: flow-through test  
Remarks: Based on data from similar materials

LC50 (Pimephales promelas (fathead minnow)): 0,330 mg/l  
Exposure time: 96 h  
Test Type: static test  
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Ceriodaphnia dubia (water flea)): 0,147 mg/l  
Exposure time: 48 h  
Remarks: Based on data from similar materials

EC50 (Daphnia magna (Water flea)): > 1,08 mg/l  
Exposure time: 48 h  
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : NOEC (Pseudokirchneriella subcapitata (green algae)): 0,019 mg/l  
Exposure time: 72 h  
Remarks: Based on data from similar materials

IC50 (Selenastrum capricornutum (green algae)): 0,136 mg/l  
Exposure time: 72 h  
Remarks: Based on data from similar materials

M-Factor (Acute aquatic toxicity) : 1

Toxicity to fish (Chronic toxicity) : NOEC: 0,044 mg/l  
Exposure time: 72 d  
Species: Oncorhynchus mykiss (rainbow trout)  
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,031 mg/l  
Exposure time: 50 d  
Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic toxicity) : 1

### **manganese carbonate:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 3,17 mg/l  
Exposure time: 96 h  
Test Type: flow-through test  
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 3,6 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

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Toxicity to algae/aquatic plants	: EC50 (Pseudokirchneriella subcapitata (green algae)): > 2,2 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
	NOEC (Pseudokirchneriella subcapitata (green algae)): 0,69 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to microorganisms	: NOEC (activated sludge): 1.000 mg/l Exposure time: 3 h Method: OECD Test Guideline 209 Remarks: Based on data from similar materials
	EC50 (activated sludge): > 1.000 mg/l Exposure time: 3 h Method: OECD Test Guideline 209 Remarks: Based on data from similar materials
Toxicity to fish (Chronic toxicity)	: NOEC: 0,55 mg/l Exposure time: 65 d Species: Salvelinus fontinalis (Brook trout) Test Type: flow-through test Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC: 1,3 mg/l Exposure time: 8 d Species: Ceriodaphnia dubia (water flea) Test Type: static test Remarks: Based on data from similar materials

### ethanediol:

Toxicity to fish	: LC50 (Pimephales promelas (fathead minnow)): > 72.860 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	: IC50 (Pseudokirchneriella subcapitata (green algae)): 10.940 mg/l Exposure time: 96 h
Toxicity to microorganisms	: (activated sludge): > 1.995 mg/l Exposure time: 30 min Method: ISO 8192
Toxicity to fish (Chronic toxicity)	: 1.500 mg/l Exposure time: 28 d Species: Menidia peninsulae (tidewater silverside)

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Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : 33.911 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)

### sodium acrylate:

#### Ecotoxicology Assessment

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

### 1,2-benzisothiazol-3(2H)-one:

Toxicity to fish : LC50 (Cyprinodon variegatus (sheepshead minnow)): 16,7 mg/l  
Exposure time: 96 h  
Test Type: static test

LC50 (Oncorhynchus mykiss (rainbow trout)): 2,15 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 2,9 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 0,070 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 0,04 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 10

Toxicity to microorganisms : EC50 (activated sludge): 24 mg/l  
Exposure time: 3 h  
Test Type: Respiration inhibition  
Method: OECD Test Guideline 209

EC50 (activated sludge): 12,8 mg/l  
Exposure time: 3 h  
Test Type: Respiration inhibition  
Method: OECD Test Guideline 209

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### 12.2 Persistence and degradability

#### Components:

##### **ethanediol:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 90 - 100 %  
Exposure time: 10 d  
Method: OECD Test Guideline 301A

##### **1,2-benzisothiazol-3(2H)-one:**

Biodegradability : Result: rapidly biodegradable  
Method: OECD Test Guideline 301C

### 12.3 Bioaccumulative potential

#### Components:

##### **trizinc bis(orthophosphate):**

Bioaccumulation : Exposure time: 21 d  
Bioconcentration factor (BCF): 60.960  
Remarks: Based on data from similar materials

##### **ethanediol:**

Partition coefficient: n-octanol/water : log Pow: -1,36

##### **1,2-benzisothiazol-3(2H)-one:**

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)  
Exposure time: 56 d  
Bioconcentration factor (BCF): 6,62  
Method: OECD Test Guideline 305  
Remarks: Substance is not persistent, bioaccumulative, and toxic (PBT).

Partition coefficient: n-octanol/water : log Pow: 0,7 (20 °C)  
pH: 7

log Pow: 0,99 (20 °C)  
pH: 5

### 12.4 Mobility in soil

#### Components:

##### **1,2-benzisothiazol-3(2H)-one:**

Distribution among environmental compartments : Koc: 9,33 ml/g, log Koc: 0,97  
Method: OECD Test Guideline 121  
Remarks: Highly mobile in soils

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### 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.

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

### 12.7 Other adverse effects

#### Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Toxic to aquatic life with long lasting effects.

---

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.

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## SECTION 14: Transport information

### 14.1 UN number or ID number

<b>ADN</b>	:	UN 3082
<b>ADR</b>	:	UN 3082
<b>RID</b>	:	UN 3082
<b>IMDG</b>	:	UN 3082
<b>IATA</b>	:	UN 3082

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### 14.2 UN proper shipping name

<b>ADN</b>	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc phosphate, Manganese carbonate)
<b>ADR</b>	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc phosphate, Manganese carbonate)
<b>RID</b>	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc phosphate, Manganese carbonate)
<b>IMDG</b>	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc phosphate, Manganese carbonate)
<b>IATA</b>	:	Environmentally hazardous substance, liquid, n.o.s. (Zinc phosphate, Manganese carbonate)

### 14.3 Transport hazard class(es)

	Class	Subsidiary risks
<b>ADN</b>	:	9
<b>ADR</b>	:	9
<b>RID</b>	:	9
<b>IMDG</b>	:	9
<b>IATA</b>	:	9

### 14.4 Packing group

<b>ADN</b>		
Packing group	:	III
Classification Code	:	M6
Hazard Identification Number	:	90
Labels	:	9
<b>ADR</b>		
Packing group	:	III
Classification Code	:	M6
Hazard Identification Number	:	90
Labels	:	9
Tunnel restriction code	:	(-)
<b>RID</b>		
Packing group	:	III
Classification Code	:	M6
Hazard Identification Number	:	90
Labels	:	9
<b>IMDG</b>		
Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F

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### IATA (Cargo)

Packing instruction (cargo aircraft)	:	964
Packing instruction (LQ)	:	Y964
Packing group	:	III
Labels	:	Miscellaneous

### IATA (Passenger)

Packing instruction (passenger aircraft)	:	964
Packing instruction (LQ)	:	Y964
Packing group	:	III
Labels	:	Miscellaneous

## 14.5 Environmental hazards

### ADN

Environmentally hazardous	:	yes
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### ADR

Environmentally hazardous	:	yes
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### RID

Environmentally hazardous	:	yes
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### IMDG

Marine pollutant	:	yes
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### IATA (Passenger)

Environmentally hazardous	:	yes
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### IATA (Cargo)

Environmentally hazardous	:	yes
---------------------------	---	-----

## 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

## 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

## 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) : Conditions of restriction for the following entries should be considered: Number on list 75, 3

If you intend to use this product as tattoo ink, please contact your vendor.

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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

Regulation (EU) 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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. E2 ENVIRONMENTAL HAZARDS

### Other regulations:

When evaluating a workplace, measures must be taken to ensure that employees are not exposed to conditions that may pose a risk during pregnancy or breastfeeding (cf. The Danish Working Environment Authority's Executive Order on The Performance of Work)

Young people under the age of 18 are not allowed to use or be exposed to the product professionally. Young people above the age of 15 are, however, except from this rule if the product is a necessary part of their education.

### The components of this product are reported in the following inventories:

TCSI : Not in compliance with the inventory

TSCA : Product contains substance(s) not listed on TSCA inventory.

AIIC : Not in compliance with the inventory

DSL : This product contains the following components that are not on the Canadian DSL nor NDSL.

RED IRON OXIDE 130

COCOAMIDOPROPYL BETAINE  
sodium acrylate

ENCS : Not in compliance with the inventory

ISHL : Not in compliance with the inventory

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KECI	:	Not in compliance with the inventory
PICCS	:	Not in compliance with the inventory
IECSC	:	Not in compliance with the inventory
NZIoC	:	Not in compliance with the inventory
TECI	:	Not in compliance with the inventory

### 15.2 Chemical safety assessment

A chemical safety assessment is not required for this product (mixture).

## SECTION 16: Other information

### Full text of H-Statements

H302	:	Harmful if swallowed.
H315	:	Causes skin irritation.
H317	:	May cause an allergic skin reaction.
H318	:	Causes serious eye damage.
H373	:	May cause damage to organs through prolonged or repeated exposure if swallowed.
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.

### Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation
STOT RE	:	Specific target organ toxicity - repeated exposure
2000/39/EC	:	Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
2017/164/EU	:	Europe. Commission Directive 2017/164/EU establishing a fourth list of indicative occupational exposure limit values
DK OEL	:	Denmark. Occupational Exposure Limits
2000/39/EC / TWA	:	Limit Value - eight hours
2000/39/EC / STEL	:	Short term exposure limit
2017/164/EU / TWA	:	Limit Value - eight hours
DK OEL / S	:	Exposure period of 15 minutes
DK OEL / GV	:	Long term exposure limit

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - 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 -

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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

#### Classification of the mixture:

Aquatic Chronic 2

H411

#### Classification procedure:

Calculation method

### Disclaimer

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