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

1.1 Product identifier

Product name KOPER 435

Other means of identification

Product code 50001901

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

Use of the Sub- : A fertilizer with micronutrients for use in agriculture

stance/Mixture

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

<u>Supplier Address</u> FMC Agro Limited

Rectors Lane, Pentre

Flintshire CH5 2DH United Kingdom

Telephone: + 44 1244 537370 E-mail address: SDS-Info@fmc.com .

1.4 Emergency telephone number

For leak, fire, spill or accident emergencies, call: England and Wales: 44-870-8200418 (CHEMTREC)

Medical emergency: England and Wales: 111 Scotland: 84 54 24 2424

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Short-term (acute) aquatic hazard, Cate-

H400: Very toxic to aquatic life.

gory 1

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Long-term (chronic) aquatic hazard, Cat-

H411: Toxic to aquatic life with long lasting effects.

egory 2

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Hazard pictograms :

¥2>

Signal word : Warning

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 as hazardous waste in

accordance with local regulations.

Hazardous components which must be listed on the label:

ethanediol

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

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.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No.	Classification	Concentration
	EC-No.		(% w/w)
	Index-No.		
	Registration number		

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dicopper chloride trihydroxide	1332-65-6 215-572-9 029-017-00-1	Acute Tox. 3; H301 Acute Tox. 4; H332 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10	>= 30 - < 60
ethanediol	107-21-1 203-473-3 603-027-00-1	Acute Tox. 4; H302 STOT RE 2; H373 (Kidney)	>= 5 - < 10
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 %	>= 0.05 - < 0.1

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.

If inhaled : If unconscious, place in recovery position and seek medical

advice.

If symptoms persist, call a physician.

In case of skin contact : Wash off immediately with soap and plenty of water.

Take off all contaminated clothing immediately. Wash contaminated clothing before reuse. Call a physician if irritation develops or persists.

In case of eye contact : Flush eyes with water as a precaution.

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Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

If swallowed : 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.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment. Dry chemical, CO2, water spray or regular foam.

Unsuitable extinguishing

media

High volume water jet

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.

Hazardous combustion prod: :

ucts

Carbon oxides

Fire may produce irritating, corrosive and/or toxic gases.

5.3 Advice for firefighters

Special protective equipment :

for firefighters

Wear self-contained breathing apparatus for firefighting if nec-

essary.

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

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.

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-

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 stor-

age stability

No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : Fertilizers

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form	Control parameters	Basis
		of exposure)		
ethanediol	107-21-1	TWA (Vapour)	20 ppm	GB EH40
			52 mg/m3	
Further information	Can be absort	Can be absorbed through the skin. The assigned substances are those for		
	which there a	re concerns that derr	mal absorption will lead to sy	stemic toxicity.
		TWA (particles)	10 mg/m3	GB EH40
Further information	Can be absorbed through the skin. The assigned substances are those for			
	which there are concerns that dermal absorption will lead to systemic toxicity.			
		STEL (Vapour)	40 ppm	GB EH40
			104 mg/m3	
Further information	Can be absorbed through the skin. The assigned substances are those for			
	which there a	which there are concerns that dermal absorption will lead to systemic toxicity.		
		STEL	40 ppm	2000/39/EC
			104 mg/m3	
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
		TWA	20 ppm	2000/39/EC
			52 mg/m3	
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
dicopper chloride	1332-65-6	TWA (Dusts and	1 mg/m3	GB EH40
trihydroxide		mists)	(Copper)	
		STEL (Dusts and	2 mg/m3	GB EH40
		mists)	(Copper)	

Derived No Effect Level (DNEL):

	` ,			
Substance name	End Use	Exposure routes	Potential health ef-	Value
			fects	
1,2-benzisothiazol-	Workers	Inhalation	Long-term systemic	6.81 mg/m3
3(2H)-one			effects	
	Workers	Dermal	Long-term systemic	0.966 mg/kg
			effects	
	Consumers	Inhalation	Long-term systemic	1.2 mg/m3
			effects	
	Consumers	Dermal	Long-term systemic	0.345 mg/kg
			effects	

Predicted No Effect Concentration (PNEC):

Substance name	Environmental Compartment	Value
dicopper chloride trihydroxide	Fresh water	0.0078 mg/l
	Marine water	0.0052 mg/l
	Sewage treatment plant	0.23 mg/l
	Fresh water sediment	87 mg/kg dry
		weight (d.w.)
	Marine sediment	676 mg/kg dry
		weight (d.w.)
1,2-benzisothiazol-3(2H)-one	Fresh water	0.00403 mg/l

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Marine water	0.000403 mg/l
Sewage treatment plant	1.03 mg/l

8.2 Exposure controls

Personal protective equipment

Eye 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 concen-

tration of the dangerous substance at the work place.

Respiratory protection : No personal respiratory protective equipment normally re-

quired.

Protective measures : Plan first aid action before beginning work with this product.

Always have on hand a first-aid kit, together with proper in-

structions.

Ensure that eye flushing systems and safety showers are

located close to the working place. Wear suitable protective equipment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : liquid

Colour : green

Odour : Barely perceptible

Odour Threshold : No data available

pH : 7.0 - 9.0

Melting point/freezing point : No data available

Initial boiling point and boiling

range

No data available

Flash point : 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

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : 1.31 - 1.35

Density : No data available

Bulk density : No data available

Solubility(ies)

Water solubility : soluble

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : 1,200 - 2,500 mPa,s

Viscosity, kinematic : No data available

Explosive properties : No data available

Oxidizing properties : Non-oxidizing

9.2 Other information

Particle size : $2.5 - 10 \mu m$

Particle Size Distribution : No data available

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.

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10.4 Conditions to avoid

Conditions to avoid : Heat

10.5 Incompatible materials

Materials to avoid : Strong oxidizing agents

Strong acids

Strong bases

10.6 Hazardous decomposition products

Toxic fumes

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : LD50 Oral (Rat): > 3,000 mg/kg

Remarks: Estimated data

Acute inhalation toxicity : Acute toxicity estimate: > 5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: Calculation method

Components:

dicopper chloride trihydroxide:

Acute oral toxicity : LD50 (Rat, male): 1,083 mg/kg

Method: OECD Test Guideline 401

LD50 (Rat, female): 950 mg/kg

Method: US EPA Test Guideline OPP 81-1

Acute inhalation toxicity : LC50 (Rat, male): 2.83 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Symptoms: Fatality

LC50 (Rat, female): > 2.77 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Symptoms: Fatality

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Acute dermal toxicity : LD50 (Rabbit, female): > 2,000 mg/kg

Method: US EPA Test Guideline OPP 81-2

Symptoms: Fatality

LD0 (Rat, male and female): > 2,000 mg/kg

Method: OECD Test Guideline 402

Remarks: no mortality

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

Skin corrosion/irritation

Not classified based on available information.

Product:

Remarks : No data available

Components:

dicopper chloride trihydroxide:

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

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Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks : No data available

Components:

dicopper chloride trihydroxide:

Species : Rabbit

Method : OECD Test Guideline 405

Result : No eye irritation

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

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Product:

Remarks : No data available

Components:

dicopper chloride trihydroxide:

Test Type : Maximisation Test

Species : Guinea pig

Method : OECD Test Guideline 406

Result : Does not cause skin sensitisation.

ethanediol:

Test Type : Maximisation Test

Species : Guinea pig

Result : Does not cause skin sensitisation.

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

Test Type : Maximisation Test

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

Not classified based on available information.

Components:

dicopper chloride trihydroxide:

Genotoxicity in vitro : Test Type: reverse mutation assay

Method: OECD Test Guideline 471

Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test

Species: Mouse (male and female)

Application Route: Oral

Method: Mutagenicity (micronucleus test)

Result: negative

Test Type: DNA binding study

Species: Rat (male) Application Route: Oral

Result: negative

Germ cell mutagenicity- As-

sessment

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

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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- As-

sessment

Weight of evidence does not support classification as a germ

cell mutagen.

Carcinogenicity

Not classified based on available information.

Components:

ethanediol:

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

Reproductive toxicity

Not classified based on available information.

Components:

dicopper chloride trihydroxide:

Effects on fertility : Test Type: Two-generation study

Species: Rat, male and female

Dose: 0, 100, 500, 1000, 1500 parts per million General Toxicity - Parent: LOAEL: 1,500 General Toxicity F1: LOAEL: 1,500 General Toxicity F2: LOAEL: 1,500 Method: OECD Test Guideline 416

Result: negative

Effects on foetal develop- : Test Type: reproductive and developmental toxicity study

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ment Species: Rat

Application Route: Oral

Dose: 0, 100, 500, 1000, 1500 parts per million

Duration of Single Treatment: 70 d

General Toxicity Maternal: LOAEL: 1,500 part per million Embryo-foetal toxicity: LOAEL: 1,500 part per million

Method: OECD Test Guideline 416

Result: negative

Reproductive toxicity - As-

sessment

Weight of evidence does not support classification for repro-

ductive 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 - As-

sessment

Weight of evidence does not support classification for repro-

ductive toxicity

STOT - single exposure

Not classified based on available information.

Components:

dicopper chloride trihydroxide:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, single exposure.

STOT - repeated exposure

Not classified based on available information.

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.

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Repeated dose toxicity

Components:

dicopper chloride trihydroxide:

Species : Rat, male and female

NOAEL : 1000 ppm LOAEL : 2000 ppm Application Route : Oral - feed Exposure time : 92 d

Dose : 0,500,1000,2000,4000,8000 ppm

Species : Rat, male and female

NOAEL : >= 2 mg/m3
Application Route : Inhalation
Test atmosphere : dust/mist
Exposure time : 28 d

Dose : 0.2,0.4,0.8,2 mg/m3
Method : OECD Test Guideline 412

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 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

Not classified based on available information.

Further information

Product:

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Remarks : No data available

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 1.03 mg/l

Exposure time: 96 h Remarks: Estimated value

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.206 mg/l

Exposure time: 48 h Remarks: Estimated value

Toxicity to algae/aquatic

plants

ErC50 (Raphidocelis subcapitata (freshwater green alga)):

0.730 mg/l

Exposure time: 72 h Remarks: Estimated value

Components:

dicopper chloride trihydroxide:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 0.0384 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)): 0.0338 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

LC50 (Ceriodaphnia dubia (water flea)): 0.014 mg/l

Exposure time: 48 h Test Type: semi-static test

Toxicity to algae/aquatic

plants

NOEC (Phaeodactylum tricornutum): 0.0057 mg/l

Exposure time: 72 h Method: ISO 10253

NOEC (Raphidocelis subcapitata (freshwater green alga)):

0.0157 mg/l

Exposure time: 72 h Test Type: static test

EC50 (Chlamydomonas reinhardtii (green algae)): 0.047 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (algae)): 0.0194 mg/l

Exposure time: 72 h

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Test Type: static test

NOEC (Skeletonema costatum (Diatom)): 0.00754 mg/l

Exposure time: 72 h Test Type: static test

NOEC (Chlamydomonas reinhardtii (green algae)): 0.022 mg/l

Exposure time: 10 d

Test Type: flow-through test

NOEC (Lemna minor (duckweed)): 0.030 mg/l

Exposure time: 7 d Test Type: static test

M-Factor (Acute aquatic tox-

icity)

10

Toxicity to microorganisms : EC50 (Bacteria): 0.025 mg/l

Exposure time: 100 d

NOEC (Tetrahymena pyriformis): 3.563 mg/l

Exposure time: 48 h

Test Type: Growth inhibition

NOEC (activated sludge): 0.26 - 0.29 mg/l

Exposure time: 30 d

Test Type: Respiration inhibition

M-Factor (Chronic aquatic

toxicity)

10

Toxicity to soil dwelling or-

ganisms

NOEC: 25 mg/kg

Exposure time: 6 Weeks

Species: worms

Toxicity to terrestrial organ-

isms

LD50: 1,400 mg/kg

Exposure time: 14 d

Species: Colinus virginianus (Bobwhite quail)

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

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Exposure time: 30 min Method: ISO 8192

Toxicity to fish (Chronic tox-

icity)

1,500 mg/l

Exposure time: 28 d

Species: Menidia peninsulae (tidewater silverside)

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

33,911 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

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 tox-

icity)

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:

dicopper chloride trihydroxide:

Biodegradability : Remarks: Not readily biodegradable.

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:

dicopper chloride trihydroxide:

Bioaccumulation : Remarks: Not applicable due to the insolubility of the salt.

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: This substance is not considered to be persistent,

bioaccumulating 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:

dicopper chloride trihydroxide:

Distribution among environ-

mental compartments

: Remarks: Low mobility in soil

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

Distribution among environ-

mental compartments

Koc: 9.33 ml/g, log Koc: 0.97 Method: OECD Test Guideline 121 Remarks: Highly mobile in soils

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 Other adverse effects

Product:

Endocrine disrupting poten-

tial

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.

Additional ecological infor-

mation

An environmental hazard cannot be excluded in the event of

unprofessional handling or disposal.

Very 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 chemi-

cal 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.

SECTION 14: Transport information

14.1 UN number

ADN : UN 3082 ADR : UN 3082 RID : UN 3082

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IMDG : UN 3082 IATA : UN 3082

14.2 UN proper shipping name

ADN : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(dicopper chloride trihydroxide)

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(dicopper chloride trihydroxide)

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(dicopper chloride trihydroxide)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(dicopper chloride trihydroxide)

IATA : Environmentally hazardous substance, liquid, n.o.s.

(dicopper chloride trihydroxide)

14.3 Transport hazard class(es)

ADN : 9
ADR : 9
RID : 9
IMDG : 9
IATA : 9

14.4 Packing group

ADN

Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9

ADR

Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9
Tunnel restriction code : (-)

RID

Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9

IMDG

Packing group : III

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Labels : 9

EmS Code : F-A, S-F

IATA (Cargo)

Packing instruction (cargo : 964

aircraft)

Packing instruction (LQ) : Y964
Packing group : III

Labels : Miscellaneous

IATA (Passenger)

Packing instruction (passen- : 964

ger aircraft)

Packing instruction (LQ) : Y964
Packing group : III

Labels : Miscellaneous

14.5 Environmental hazards

ADN

Environmentally hazardous : yes

ADR

Environmentally hazardous : yes

RID

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

IATA (Passenger)

Environmentally hazardous : yes

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 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17) : Conditions of restriction for the fol-

lowing entries should be considered:

Number on list 3

ethanediol (Number on list 3) reaction mass of 5-chloro-2-methyl-

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2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (Number

on list 3)

UK REACH Candidate list of substances of very high

concern (SVHC) for Authorisation

: Not applicable

The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Brit-

ain)

Not applicable

Regulation (EC) No 1005/2009 on substances that de-

plete the ozone layer

Not applicable

UK REACH List of substances subject to authorisation

(Annex XIV)

Not applicable

Control of Major Accident Hazards Regulations E1

2015 (COMAH)

ENVIRONMENTAL HAZARDS

E1

Other regulations:

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.

Ethanol, 2,2',2"-nitrilotris-, compd. with .alpha.-[2,4,6-tris(1-phenylethyl)phenyl]-.omega.-hydroxypoly(oxy-1,2-ethanediyl)

phosphate

emulsion of silicone

ENCS : Not in compliance with the inventory

ISHL : Not in compliance with the inventory

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

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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

H301 : Toxic if swallowed. H302 : Harmful if swallowed. H315 : Causes skin irritation.

H317 : May cause an allergic skin reaction. H318 : Causes serious eye damage.

H332 : Harmful if inhaled.

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

GB EH40 : UK. EH40 WEL - Workplace Exposure Limits

2000/39/EC / TWA : Limit Value - eight hours 2000/39/EC / STEL : Short term exposure limit

GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL : Short-term exposure limit (15-minute reference period)

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 -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;

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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; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Classification of the mixture:

Classification procedure:

Aquatic Acute 1 H400 Based on product data or assessment

Aquatic Chronic 2 H411 Calculation method

Disclaimer

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