According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 6.0
 28.09.2024
 9374581-00008
 Date of first issue: 27.08.2021

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

1.1 Product identifier

Trade name : Calcium / Magnesium Chloride Formulation

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

Use of the Sub- : Veterinary product

stance/Mixture

Recommended restrictions

on use

Not applicable

1.3 Details of the supplier of the safety data sheet

Company : MSD

Walton Manor, Walton

MK7 7AJ Milton Keynes - United Kingdom

Telephone : +1-908-740-4000

E-mail address of person

responsible for the SDS

: EHSDATASTEWARD@msd.com

#### 1.4 Emergency telephone number

+1-908-423-6000

## **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)

Reproductive toxicity, Category 1B H360FD: May damage fertility. May damage the

unborn child.

#### 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 :

Panagr

Signal word : Danger

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 6.0
 28.09.2024
 9374581-00008
 Date of first issue: 27.08.2021

Hazard statements : H360FD May damage fertility. May damage the unborn

child.

Precautionary statements : Prevention:

P201 Obtain special instructions before use.

P280 Wear protective gloves/ protective clothing/ eye

protection/ face protection.

Response:

P308 + P313 IF exposed or concerned: Get medical advice/

attention.

Storage:

P405 Store locked up.

Hazardous components which must be listed on the label:

Boric acid

EUH208 Contains 4-Chloro-3-methylphenol. May produce an allergic reaction.

Restricted to professional users.

### 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. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Boric acid	10043-35-3 233-139-2 005-007-00-2	Repr. 1B; H360FD	>= 1 - < 10
4-Chloro-3-methylphenol	59-50-7 200-431-6 604-014-00-3	Acute Tox. 4; H302 Skin Corr. 1C; H314 Eye Dam. 1; H318 Skin Sens. 1B; H317 STOT SE 3; H335 Aquatic Acute 1; H400 Aquatic Chronic 3; H412 M-Factor (Acute	>= 0.1 - < 0.25

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 6.0
 28.09.2024
 9374581-00008
 Date of first issue: 27.08.2021

IL		aquatic toxicity): 1		
Substances with a workplace exposure limit:				
Magnesium chloride	7786-30-3		>= 1 - < 10	
	232-094-6			

For explanation of abbreviations see section 16.

#### **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

General advice : In the case of accident or if you feel unwell, seek medical ad-

vice immediately.

When symptoms persist or in all cases of doubt seek medical

advice.

Protection of first-aiders : First Aid responders should pay attention to self-protection,

and use the recommended personal protective equipment when the potential for exposure exists (see section 8).

If inhaled : If inhaled, remove to fresh air.

Get medical attention.

In case of skin contact : In case of contact, immediately flush skin with soap and plenty

of water.

Remove contaminated clothing and shoes.

Get medical attention. Wash clothing before reuse.

Thoroughly clean shoes before reuse.

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

Get medical attention if irritation develops and persists.

If swallowed, DO NOT induce vomiting.

Get medical attention.

Rinse mouth thoroughly with water.

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

Risks : May damage fertility. May damage the unborn child.

May produce an allergic reaction.

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

Treatment : Treat symptomatically and supportively.

#### **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

Suitable extinguishing media : Water spray

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 6.0
 28.09.2024
 9374581-00008
 Date of first issue: 27.08.2021

Alcohol-resistant foam Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing

media

None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-

fighting

Exposure to combustion products may be a hazard to health.

Hazardous combustion prod- :

ucts

Carbon oxides Metal oxides

Chlorine compounds

Boron oxides

5.3 Advice for firefighters

Special protective equipment:

for firefighters

In the event of fire, wear self-contained breathing apparatus.

Use personal protective equipment.

Specific extinguishing meth-

ods

Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment. Use water spray to cool unopened containers.

Remove undamaged containers from fire area if it is safe to do

so.

Evacuate area.

#### **SECTION 6: Accidental release measures**

## 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.

Follow safe handling advice (see section 7) and personal pro-

tective equipment recommendations (see section 8).

6.2 Environmental precautions

Environmental precautions : Avoid release to the environment.

Prevent further leakage or spillage if safe to do so.

Prevent spreading over a wide area (e.g. by containment or oil

barriers).

Retain and dispose of contaminated wash water.

If spillage enters rivers or watercourses, inform the Environment Agency (emergency telephone number 0800 807060).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material.

For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absor-

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 6.0
 28.09.2024
 9374581-00008
 Date of first issue: 27.08.2021

bent.

Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to deter-

mine which regulations are applicable.

Sections 13 and 15 of this SDS provide information regarding

certain local or national requirements.

#### 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

Technical measures : See Engineering measures under EXPOSURE

CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust

ventilation.

Advice on safe handling : Do not get on skin or clothing.

Do not breathe vapours or spray mist.

Do not swallow.

Avoid contact with eyes.

Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure as-

sessment

Keep container tightly closed.

Take care to prevent spills, waste and minimize release to the

environment.

Hygiene measures : If exposure to chemical is likely during typical use, provide eye

flushing systems and safety showers close to the working place. When using do not eat, drink or smoke. Wash contami-

nated clothing before re-use.

The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the

use of administrative controls.

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

Requirements for storage areas and containers

: Keep in properly labelled containers. Store locked up. Keep tightly closed. Store in accordance with the particular national

regulations.

Advice on common storage : Do not store with the following product types:

Strong oxidizing agents

Self-reactive substances and mixtures

Organic peroxides

Explosives Gases

#### 7.3 Specific end use(s)

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 6.0
 28.09.2024
 9374581-00008
 Date of first issue: 27.08.2021

Specific use(s) : No data available

## **SECTION 8: Exposure controls/personal protection**

## 8.1 Control parameters

## **Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Magnesium chlo- ride	7786-30-3	TWA	OEB 2 (>= 100 < 1000 µg/m3)	Internal
4-Chloro-3- methylphenol	59-50-7	TWA	200 μg/m3 (OEB 2)	Internal
		Wipe limit	100 μg/100 cm2	Internal

### **Derived No Effect Level (DNEL)**

Substance name	End Use	Exposure routes	Potential health effects	Value
Magnesium chloride	Consumers	Ingestion	Long-term systemic effects	7 mg/kg bw/day
Boric acid	Workers	Skin contact	Long-term systemic effects	392 mg/kg bw/day
	Workers	Inhalation	Long-term systemic effects	8.3 mg/m3
	Consumers	Ingestion	Acute systemic ef- fects	0.98 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	0.98 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	4.15 mg/m3
	Consumers	Skin contact	Long-term systemic effects	196 mg/kg bw/day
4-Chloro-3- methylphenol	Workers	Inhalation	Long-term systemic effects	6.289 mg/m3
	Workers	Skin contact	Long-term systemic effects	3.567 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	1.551 mg/m3
	Consumers	Skin contact	Long-term systemic effects	1.783 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	0.892 mg/kg bw/day

### **Predicted No Effect Concentration (PNEC)**

	` ,	
Substance name	Environmental Compartment	Value
Magnesium chloride	Fresh water	3.21 mg/l
	Marine water	0.32 mg/l
	Intermittent use/release	5.48 mg/l
	Sewage treatment plant	90 mg/l
	Fresh water sediment	288.9 mg/kg dry

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 6.0
 28.09.2024
 9374581-00008
 Date of first issue: 27.08.2021

II		weight (d.w.)
	Marine sediment	28.89 mg/kg dry
		weight (d.w.)
	Soil	662.77 mg/kg dry
		weight (d.w.)
Boric acid	Fresh water	2.9 mg/l
	Intermittent use/release	13.7 mg/l
	Marine water	2.9 mg/l
	Sewage treatment plant	10 mg/l
	Soil	5.7 mg/kg dry
		weight (d.w.)
4-Chloro-3-methylphenol	Fresh water	0.015 mg/l
	Intermittent use/release	0.015 mg/l
	Marine water	0.002 mg/l
	Sewage treatment plant	2.286 mg/l
	Fresh water sediment	13.981 mg/kg dry
		weight (d.w.)
	Marine sediment	13.981 mg/kg dry
		weight (d.w.)
	Soil	6.399 mg/kg dry
		weight (d.w.)

### 8.2 Exposure controls

### **Engineering measures**

Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., drip-less quick connections).

All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment. Laboratory operations do not require special containment.

#### Personal protective equipment

Eye/face protection : Wear safety glasses with side shields or goggles.

If the work environment or activity involves dusty conditions,

mists or aerosols, wear the appropriate goggles.

Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or

aerosols.

Hand protection

Material : Chemical-resistant gloves

Skin and body protection :

Work uniform or laboratory coat.

Respiratory protection : If adequate local exhaust ventilation is not available or expo-

sure assessment demonstrates exposures outside the rec-

ommended guidelines, use respiratory protection. Equipment should conform to BS EN 143

Filter type : Particulates type (P)

#### **SECTION 9: Physical and chemical properties**

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

Appearance : liquid

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

Version Revision Date: SDS Number: Date of last issue: 06.04.2024 6.0 28.09.2024 9374581-00008 Date of first issue: 27.08.2021

Colour : translucent, light yellow

Odour : No data available
Odour Threshold : No data available

pH : 3.0 - 4.0

Melting point/freezing point : No data available

Initial boiling point and boiling

range Flash point boiling : No data available

Evaporation rate : No data available

Upper explosion limit / Upper :

flammability limit

No data available

Not applicable

No data available

Lower explosion limit / Lower

Flammability (solid, gas)

flammability limit

No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Density : 1.000 - 1.200 g/cm<sup>3</sup>

Solubility(ies)

Water solubility : No data available Partition coefficient: n- : Not applicable

octanol/water

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, kinematic : No data available

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

9.2 Other information

Flammability (liquids) : No data available

Molecular weight : No data available

Particle size : Not applicable

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 6.0
 28.09.2024
 9374581-00008
 Date of first issue: 27.08.2021

## **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

Not classified as a reactivity hazard.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Can react with strong oxidizing agents.

#### 10.4 Conditions to avoid

Conditions to avoid : None known.

#### 10.5 Incompatible materials

Materials to avoid : Oxidizing agents

#### 10.6 Hazardous decomposition products

No hazardous decomposition products are known.

## **SECTION 11: Toxicological information**

### 11.1 Information on toxicological effects

Information on likely routes of : Inhalation

exposure Skin contact

Ingestion Eye contact

#### **Acute toxicity**

Not classified based on available information.

### **Components:**

#### Boric acid:

Acute oral toxicity : LD50 (Rat): 3,450 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 2.03 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Assessment: The substance or mixture has no acute inhala-

tion toxicity

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

Assessment: The substance or mixture has no acute dermal

toxicity

#### 4-Chloro-3-methylphenol:

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 6.0
 28.09.2024
 9374581-00008
 Date of first issue: 27.08.2021

Acute oral toxicity : LD50 (Mouse): 600 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 2.871 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg

Magnesium chloride:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 423

Assessment: The substance or mixture has no acute oral tox-

icity

Remarks: Based on data from similar materials

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

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

Remarks: Based on data from similar materials

#### Skin corrosion/irritation

Not classified based on available information.

#### Components:

#### Boric acid:

Species : Rabbit

Result : No skin irritation

#### 4-Chloro-3-methylphenol:

Species : Rabbit

Method : OECD Test Guideline 404

Result : Corrosive after 1 to 4 hours of exposure

#### Magnesium chloride:

Species : reconstructed human epidermis (RhE)
Method : Regulation (EC) No. 440/2008, Annex, B.46
Remarks : Based on data from similar materials

No skin irritation

itematiks . Dased on data from similar materia

#### --

## Serious eye damage/eye irritation

Not classified based on available information.

#### **Components:**

#### Boric acid:

Result

Species : Rabbit

Result : No eye irritation

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 6.0
 28.09.2024
 9374581-00008
 Date of first issue: 27.08.2021

### 4-Chloro-3-methylphenol:

Species : Rabbit

Method : OECD Test Guideline 405
Result : Irreversible effects on the eye

### Magnesium chloride:

Species : Rabbit

Method : OECD Test Guideline 405

Result : No eye irritation

Remarks : Based on data from similar materials

#### Respiratory or skin sensitisation

#### Skin sensitisation

Not classified based on available information.

#### Respiratory sensitisation

Not classified based on available information.

#### **Components:**

#### Boric acid:

Test Type : Buehler Test Exposure routes : Skin contact Species : Guinea pig

Method : OECD Test Guideline 406

Result : negative

#### 4-Chloro-3-methylphenol:

Test Type : Maximisation Test
Exposure routes : Skin contact
Species : Guinea pig

Assessment : Probability or evidence of low to moderate skin sensitisation

rate in humans

#### Magnesium chloride:

Test Type : Maximisation Test
Exposure routes : Skin contact
Species : Guinea pig

Method : OECD Test Guideline 406

Result : negative

Remarks : Based on data from similar materials

#### Germ cell mutagenicity

Not classified based on available information.

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

Version Revision Date: SDS Number: Date of last issue: 06.04.2024 6.0 28.09.2024 9374581-00008 Date of first issue: 27.08.2021

**Components:** 

Boric acid:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Result: equivocal

Test Type: Chromosome aberration test in vitro

Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo

cytogenetic assay) Species: Mouse

**Application Route: Ingestion** 

Result: negative

4-Chloro-3-methylphenol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)

Result: negative

Magnesium chloride:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test

Result: negative

Test Type: Chromosome aberration test in vitro

Method: OECD Test Guideline 473

Result: negative

Remarks: Based on data from similar materials

Test Type: Bacterial reverse mutation assay (AMES)

Result: negative

Carcinogenicity

Not classified based on available information.

Components:

Boric acid:

Species : Mouse
Application Route : Ingestion
Exposure time : 103 weeks
Result : negative

Magnesium chloride:

Species: MouseApplication Route: IngestionExposure time: 18 MonthsResult: negative

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 6.0
 28.09.2024
 9374581-00008
 Date of first issue: 27.08.2021

Remarks : Based on data from similar materials

Reproductive toxicity

May damage fertility. May damage the unborn child.

**Components:** 

Boric acid:

Effects on fertility : Test Type: Three-generation reproduction toxicity study

Species: Rat

Application Route: Ingestion

Result: positive

Effects on foetal develop-

ment

Test Type: Embryo-foetal development

Species: Rabbit

Application Route: Ingestion

Result: positive

Reproductive toxicity - As-

sessment

Clear evidence of adverse effects on sexual function and fertility, based on animal experiments., Clear evidence of adverse

effects on development, based on animal experiments.

4-Chloro-3-methylphenol:

Effects on fertility : Test Type: One-generation reproduction toxicity study

Species: Rat

Application Route: Ingestion

Result: negative

Effects on foetal develop-

ment

Test Type: Reproduction/Developmental toxicity screening

test

Species: Rat

Application Route: Ingestion

Result: negative

Magnesium chloride:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the

reproduction/developmental toxicity screening test

Species: Rat

Application Route: Ingestion Method: OECD Test Guideline 422

Result: negative

Remarks: Based on data from similar materials

Effects on foetal develop-

ment

: Test Type: Embryo-foetal development

Species: Rat

Application Route: Ingestion

Result: negative

Remarks: Based on data from similar materials

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 6.0
 28.09.2024
 9374581-00008
 Date of first issue: 27.08.2021

#### STOT - single exposure

Not classified based on available information.

#### **Components:**

## 4-Chloro-3-methylphenol:

Assessment : May cause respiratory irritation.

#### STOT - repeated exposure

Not classified based on available information.

#### Repeated dose toxicity

## **Components:**

#### Boric acid:

Species : Rat

NOAEL : 100 mg/kg LOAEL : 334 mg/kg Application Route : Ingestion Exposure time : 2 yr

## 4-Chloro-3-methylphenol:

Species: RatNOAEL: 200 mg/kgLOAEL: 400 mg/kgApplication Route: IngestionExposure time: 28 Days

#### Magnesium chloride:

Species : Rat

NOAEL : 308 mg/kg
LOAEL : 1,600 mg/kg
Application Route : Ingestion
Exposure time : 90 Days

Remarks : Based on data from similar materials

#### **Aspiration toxicity**

Not classified based on available information.

### **SECTION 12: Ecological information**

## 12.1 Toxicity

#### **Components:**

#### Boric acid:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 74 mg/l

Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Ceriodaphnia dubia (water flea)): 102 mg/l

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

Version Revision Date: SDS Number: Date of last issue: 06.04.2024 6.0 28.09.2024 9374581-00008 Date of first issue: 27.08.2021

aquatic invertebrates Exposure time: 48 h

Toxicity to algae/aquatic EC50 (Pseudokirchneriella subcapitata (green algae)): 52.4

plants mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 17.5

Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to microorganisms EC10: 35.4 mg/l

Exposure time: 3 h

Method: OECD Test Guideline 209

Toxicity to fish (Chronic tox-

icity)

NOEC: 6.4 mg/l

Exposure time: 34 d

Species: Danio rerio (zebra fish) Method: OECD Test Guideline 210

Toxicity to daphnia and other: aquatic invertebrates (Chron-

ic toxicity)

NOEC: 10.8 ma/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

4-Chloro-3-methylphenol:

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)): 917 μg/l

Exposure time: 96 h

Toxicity to daphnia and other:

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 1.5 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

ErC50 (Chlorella pyrenoidosa (algae)): 15 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

EC10 (Chlorella pyrenoidosa (algae)): 2.3 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

M-Factor (Acute aquatic tox- : 1

icity)

Toxicity to microorganisms EC50: 22.86 mg/l

Exposure time: 60 h

Toxicity to daphnia and other: aquatic invertebrates (Chron-

ic toxicity)

NOEC: 0.32 mg/l

Exposure time: 21 d

Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 6.0
 28.09.2024
 9374581-00008
 Date of first issue: 27.08.2021

Magnesium chloride:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 2,119.3 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 548.4 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

ErC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

NOEC (Desmodesmus subspicatus (green algae)): > 100 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to microorganisms : NOEC : > 900 mg/l

Exposure time: 3 h

Method: OECD Test Guideline 209

Toxicity to daphnia and other : aquatic invertebrates (Chron-

aquatic invertebrati ic toxicity) EC10: 321 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

#### 12.2 Persistence and degradability

#### Components:

4-Chloro-3-methylphenol:

Biodegradability : Result: Readily biodegradable.

Biodegradation: 78 % Exposure time: 15 d

Method: OECD Test Guideline 301

#### 12.3 Bioaccumulative potential

## **Components:**

Boric acid:

Bioaccumulation : Species: Cyprinus carpio (Carp)

Bioconcentration factor (BCF): <= 3.2 Method: OECD Test Guideline 305

Partition coefficient: n-

octanol/water

log Pow: -1.09

4-Chloro-3-methylphenol:

Bioaccumulation : Species: Cyprinus carpio (Carp)

Bioconcentration factor (BCF): 5.5 - 13

Partition coefficient: n-

octanol/water

log Pow: 0.477

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

Version Revision Date: SDS Number: Date of last issue: 06.04.2024 6.0 28.09.2024 9374581-00008 Date of first issue: 27.08.2021

#### 12.4 Mobility in soil

No data available

#### 12.5 Results of PBT and vPvB assessment

#### **Product:**

Assessment : This substance/mixture contains no components considered

to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of

0.1% or higher.

#### 12.6 Other adverse effects

#### **Product:**

Endocrine disrupting poten-

tial

This substance/mixture does not contain components considered to have endocrine disrupting properties for environment

according to LIK DEACH Article 57/f)

according to UK REACH Article 57(f).

### **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.

According to the European Waste Catalogue, Waste Codes

are not product specific, but application specific.

Waste codes should be assigned by the user, preferably in

discussion with the waste disposal authorities.

Do not dispose of waste into sewer.

Contaminated packaging : Empty containers should be taken to an approved waste han-

dling site for recycling or disposal.

If not otherwise specified: Dispose of as unused product.

### **SECTION 14: Transport information**

#### 14.1 UN number

ADN : Not regulated as a dangerous good
ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

## 14.2 UN proper shipping name

ADN : Not regulated as a dangerous good
ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

Version Revision Date: SDS Number: Date of last issue: 06.04.2024 6.0 28.09.2024 9374581-00008 Date of first issue: 27.08.2021

IATA : Not regulated as a dangerous good

14.3 Transport hazard class(es)

ADN : Not regulated as a dangerous good
ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.4 Packing group

ADN : Not regulated as a dangerous good
ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA (Cargo) : Not regulated as a dangerous good
IATA (Passenger) : Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

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

Remarks : 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)

UK REACH List of restrictions (Annex 17)

UK REACH List of restrictions (Annex 17)

Conditions of restriction for the following entries should be considered: Number on list 3

Number on list 30: Boric acid

Substance(s) or mixture(s) are listed here according to their appearance in the regulation, irrespective of their use/purpose or the conditions of the restriction. Please refer to the conditions in corresponding Regulation to determine whether an entry is applicable to the placing on the market or not.

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 6.0
 28.09.2024
 9374581-00008
 Date of first issue: 27.08.2021

UK REACH Candidate list of substances of very high : Boric acid

concern (SVHC) for Authorisation

The Persistent Organic Pollutants Regulations (retained : Not applicable

Regulation (EU) 2019/1021 as amended for Great Brit-

aın)

Regulation (EC) on substances that deplete the ozone : Not applicable

layer

UK REACH List of substances subject to authorisation : Not applicable

(Annex XIV)

GB Export and import of hazardous chemicals - Prior : Not applicable

Informed Consent (PIC) Regulation

Control of Major Accident Hazards Regulations 2015 (COMAH)

Not applicable

### Other regulations:

Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to new and expectant mothers at work contained in Regulation 16 to 18) and of the Pregnant Workers Directive 92/85/EEC.

Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to protection of young people at work contained in Regulation 19) and of Directive 94/33/EC on the protection of young people at work.

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

DSL : not determined

AICS : not determined

IECSC : not determined

#### 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

#### **SECTION 16: Other information**

Other information : Items where changes have been made to the previous version

are highlighted in the body of this document by two vertical

lines.

#### **Full text of H-Statements**

H302 : Harmful if swallowed.

H314 : Causes severe skin burns and eye damage.

H317 : May cause an allergic skin reaction.
H318 : Causes serious eye damage.
H335 : May cause respiratory irritation.

H360FD : May damage fertility. May damage the unborn child.

H400 : Very toxic to aquatic life.

H412 : Harmful to aquatic life with long lasting effects.

#### Full text of other abbreviations

Acute Tox. : Acute toxicity

Aquatic Acute : Short-term (acute) aquatic hazard

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 6.0
 28.09.2024
 9374581-00008
 Date of first issue: 27.08.2021

Aquatic Chronic : Long-term (chronic) aquatic hazard

Eye Dam. : Serious eye damage
Repr. : Reproductive toxicity
Skin Corr. : Skin corrosion
Skin Sens. : Skin sensitisation

STOT SE : Specific target organ toxicity - single exposure

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; 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

#### **Further information**

Sources of key data used to compile the Safety Data

Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agen-

Sheet cy, http://echa.europa.eu/

Classification of the mixture: Classification procedure:

Repr. 1B H360FD Calculation method

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758



## **Calcium / Magnesium Chloride Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 06.04.2024

 6.0
 28.09.2024
 9374581-00008
 Date of first issue: 27.08.2021

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

GB / EN