

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

CALCIUM CHLORIDE 36% (E509) FOOD

Version 1.0 Print Date 31/07/2024

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

1.1. Product identifier

Trade name : CALCIUM CHLORIDE 36% (E509) FOOD

UFI : 65C9-20N9-300J-WQFD

UFI code notified in : Belgium, Germany, Denmark, Estonia, Spain, France, Croatia,

Ireland, Iceland, Lithuania, Latvia, Malta, Netherlands,

Norway, Portugal, Sweden

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

Use of the : Identified use: See table in front of appendix for a complete

Substance/Mixture overview of identified uses.

Uses advised against : At this moment we have not identified any uses advised

against

Remarks : Before referring to any Exposure Scenario attached to this

Safety Data Sheet please check the grade of the product: the Exposure Scenarios presented are not related to all product

grade

1.3. Details of the supplier of the safety data sheet

Company : Brouwland BVBA

Korspelsesteenweg 86

B-3581 Beverlo

Telephone : +32-(0)11-40.14.08
Telefax : +32-(0)11-34.73.59
E-mail address : Info@brouwland.com
Responsible/issuing : Quality officer (N. Balis)

person

1.4. Emergency telephone number

Emergency telephone

number

: Belgium: Antipoison Center - Brussels TEL: +32(0)70 245 245

Netherland: National Poisoning Information Center - Bilthoven TEL: +31(0) 88 755 8000 (Only for the purpose of informing

medical personnel in cases of acute intoxications)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

REGULATION (EC) No 1272/2008			
Hazard class	Hazard category	Target Organs	Hazard statements
Eye irritation	Category 2		H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

Most important adverse effects

Human Health : See section 11 for toxicological information.

Physical and chemical

hazards

See section 9/10 for physicochemical information.

Potential environmental :

effects

See section 12 for environmental information.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard symbols :



Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.

Precautionary statements

Prevention : P264 Wash skin thoroughly after handling.

P280 Wear eye protection/ face protection.

Response : P305 + P351 + P338 IF IN EYES: Rinse cautiously with

water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing.

P337 + P313 If eye irritation persists: Get medical advice/

attention.

Hazardous components which must be listed on the label:

· calcium chloride

2.3. Other hazards

The PBT or vPvB criteria of Annex XIII to the REACH Regulation does not apply to inorganic substances.

Ecological information: No information available about endocrine disruption properties for environment.

Toxicological information: No information available about endocrine disruption properties for human health.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical nature : Aqueous solution

Classification
(REGULATION (EC) No 1272/2008)

Hazardous components Amount [%] Hazard class / Hazard
category Hazard statements

calcium chloride

Index-No. : 017-013-00-2 >= 25 - <= 45 Eye Irrit.2 H319

CAS-No. : 10043-52-4 EC-No. : 233-140-8

EU REACH- : 01-2119494219-28-xxxx

Reg. No.

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice : Take off all contaminated clothing immediately. If symptoms

call a physician.

If inhaled : Remove to fresh air. If symptoms persist, call a physician.

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

irritation persists, call a physician.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids,

for at least 5 minutes. Consult an eye specialist immediately.

Go to an ophthalmic hospital if possible.

If swallowed : Rinse mouth with water. Never give anything by mouth to an

unconscious person. If symptoms persist, call a physician.

Protection of First Aid

Responders

: First Aid responders should pay attention to self-protection and

use the recommended protective clothing.

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

Symptoms : See Section 11 for more detailed information on health effects

and symptoms.

Effects : irritant effects

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

The product itself does not burn. Use extinguishing measures

that are appropriate to local circumstances and the

surrounding environment.

Unsuitable extinguishing

media

High volume water jet

5.2. Special hazards arising from the substance or mixture

Specific hazards during

firefighting

Fire may cause evolution of: Irritant gases/vapours

5.3. Advice for firefighters

Special protective

equipment for firefighters

Further advice

: In the event of fire, wear self-contained breathing apparatus. Wear personal protective equipment.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Cool closed containers

exposed to fire with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

: Use personal protective equipment. Keep away unprotected Personal precautions

persons. Ensure adequate ventilation. Avoid contact with skin

and eyes.

6.2. **Environmental precautions**

Environmental precautions

: Do not flush into surface water or sanitary sewer system.

Avoid subsoil penetration.

Methods and materials for containment and cleaning up

containment and cleaning

Methods and materials for : Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders). Keep in suitable, closed

containers for disposal.

Further information : Treat recovered material as described in the section "Disposal

considerations".

Reference to other sections

See Section 1 for emergency contact information.

See Section 8 for information on personal protective equipment.

See Section 13 for waste treatment information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling : Keep container tightly closed. Use personal protective

> equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Emergency eye wash fountains and emergency showers should be available in the immediate

vicinity.

: Keep away from food, drink and animal feedingstuffs. Smoking, Hygiene measures

eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off

all contaminated clothing immediately.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

: Store in original container. Suitable materials for containers: Polypropylene; polyethylene; Unsuitable materials for

containers: Aluminium

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

Further information on storage conditions

: Keep tightly closed in a dry and cool place.

7.3. Specific end use(s)

Specific use(s) : Identified use: See table in front of appendix for a complete

overview of identified uses.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Other Occupational Exposure Limit Values

(Additional) Information : Contains no substances with occupational exposure limit values.

Contains no substances with occupational exposure limit values.

Component: calcium chloride CAS-No. 10043-52-4

Derived No Effect Level (DNEL)/Derived Minimal Effect Level (DMEL)

DNEL

Workers, Acute - local effects, Inhalation : 10 mg/m3

DNEL

Workers, Long-term - local effects, Inhalation : 5 mg/m3

DNEL

Consumers, Acute - local effects, Inhalation : 5 mg/m3

DNEL

Consumers, Long-term - local effects, Inhalation : 2,5 mg/m3

Component: calcium chloride CAS-No. 10043-52-4

Predicted No Effect Concentration (PNEC)

No PNEC value was derived.

8.2. Exposure controls

Appropriate engineering controls

Refer to protective measures listed in sections 7 and 8.

Personal protective equipment

Respiratory protection

Advice : Required, if exposure limit is exceeded (e.g. OEL).

Respiratory protection complying with EN 141.

Hand protection

Advice : Protective gloves complying with EN 374.

Please observe the instructions regarding permeability and

breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under

which the product is used, such as the danger of cuts, abrasion,

and the contact time.

Protective gloves should be replaced at first signs of wear.

Material : Natural Rubber
Break through time : >= 480 min
Glove thickness : 0,5 mm

Material : polychloroprene
Break through time : >= 480 min
Glove thickness : 0,5 mm

Material : Nitrile rubber
Break through time : >= 480 min
Glove thickness : 0,35 mm

Material : butyl-rubber
Break through time : >= 480 min
Glove thickness : 0,5 mm

Material : Fluorinated rubber

Break through time : >= 480 minGlove thickness : 0,4 mm

Material : Polyvinylchloride
Break through time : >= 480 min
Glove thickness : 0,5 mm

Eye protection

Advice : Safety goggles

Skin and body protection

Advice : Wear personal protective equipment.

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.

Avoid subsoil penetration.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form : liquid

Physical state : liquid

Colour : colourless

Odour : odourless

Odour Threshold : Not applicable

Melting point/range : ca. -46 °C

18 - 42% solution

Boiling point/boiling range : ca. 100 - 120 °C

18 - 42% solution

Flammability (solid, gas) : Not applicable

Remarks: does not sustain combustion.

Upper explosion limit / Upper

flammability limit

Not applicable

Lower explosion limit / Lower

flammability limit

Not applicable

Flash point : Not applicable

Auto-ignition temperature : Not applicable

Decomposition temperature : > 772 °C

Self-Accelerating

decomposition temperature

(SADT)

No data available

pH : 10 - 11 (20 °C)

Concentration: 100 % (formulated product)

Viscosity

Viscosity, dynamic : ca. 2 - 10 mPa.s

18 - 42% solution

Viscosity, kinematic : No data available

Flow time : No data available

Solubility(ies)

Water solubility : completely soluble

Solubility in other solvents : No data available

Dissolution Rate : No data available

Partition coefficient: n-

octanol/water

Not applicable

Dispersion Stability : No data available

Vapour pressure : Not applicable

Relative density : No data available

Density : 1,4 g/cm3

solution 40%

Bulk density : No data available

Relative vapour density : No data available

Particle characteristics No data available

9.2 Other information

Explosives : Product is not explosive.

Flammability (liquids) : Not applicable

Remarks: does not sustain combustion.

SECTION 10: Stability and reactivity

10.1. Reactivity

Advice : No decomposition if stored and applied as directed.

10.2. Chemical stability

Advice : Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

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

10.4. Conditions to avoid

Conditions to avoid : Exposure to moistureProduct is hygroscopic.

Thermal decomposition : > 772 °C

10.5. Incompatible materials

Materials to avoid : Strong reducing agents, Strong oxidizing agents

10.6. Hazardous decomposition products

Hazardous decomposition : Fire may cause evolution of: Irritant gases/vapours

products

SECTION 11: Toxicological information

11.1. Information on the hazard classes within the meaning of Regulation (EC) No. 1272/2008

	Acute toxicity	
_	Oral	
	Please find this information in the listing of the component/components below in this section.	
	Inhalation	
	Please find this information in the listing of the	
	component/components below in this section. Dermal	
	Dermai	
	Please find this information in the listing of the component/components below in this section.	
	Irritation	
	Skin	
Result :	Please find this information in the listing of the component/components below in this section.	
	Eyes	
Result :	Please find this information in the listing of the component/components below in this section.	
	Sensitisation	
Result :	Please find this information in the listing of the component/components below in this section.	
	CMR effects	
	CMR Properties	
Carcinogenicity	: Please find this information in the listing of the component/components below in this section.	_
Mutagenicity	: Please find this information in the listing of the component/components below in this section.	
Teratogenicity	: Please find this information in the listing of the component/components below in this section.	
Reproductive toxicity	: Please find this information in the listing of the component/components below in this section.	
	Carcinogenicity	
	Please find this information in the listing of the component/components below in this section.	
	Teratogenicity	
	Please find this information in the listing of the component/components below in this section.	

	Specific Target Organ Toxicity
	Single exposure
Remarks	: Please find this information in the listing of the component/components below in this section.
	Repeated exposure
Remarks	: Please find this information in the listing of the component/components below in this section.
	Other toxic properties
	Repeated dose toxicity
	; Please find this information in the listing of the
	component/components below in this section.
	Aspiration hazard

No data available

Component:	calcium chloride	CAS-No. 10043-52-4
	Acute toxicity	
	Oral	
LD50	: 2120 mg/kg body weight(Rat, male Guideline 401)	e and female) (OECD Test
	Inhalation	
	No data available	
	Dermal	
LD50	: > 5000 mg/kg body weight(Rabbit,	male and female)
	Irritation	
	Skin	
Result	: No skin irritation (Rabbit) (OECD T	est Guideline 404)
	Eyes	
Result	: Irritating to eyes. (Rabbit) (OECD	Test Guideline 405)

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Sensitisation

Result : Study scientifically not justified.

CMR effects

Carcinogenicity

It dissociates into ions that are present physiologically in relatively high levels in vertebrates. Therefore, a study is considered (scientifically) unnecessary.

CMR Properties

Carcinogenicity : Study scientifically not justified.

Mutagenicity : In vitro tests did not show mutagenic effects

Teratogenicity : Did not show teratogenic effects in animal experiments.

Reproductive toxicity : Study scientifically not justified.

Teratogenicity

NOAEL Maternal 169 mg/kg

(Rabbit)(OECD Test Guideline 414)

Specific Target Organ Toxicity

Single exposure

Remarks : The substance or mixture is not classified as specific target organ

toxicant, single exposure.

Repeated exposure

Remarks : The substance or mixture is not classified as specific target organ

toxicant, repeated exposure.

Other toxic properties

Repeated dose toxicity

; It dissociates into ions that are present physiologically in relatively high levels in vertebrates. Therefore, a study is considered (scientifically) unnecessary.

Aspiration hazard

Not applicable,

11.2. Information on other hazards

Data for the product		
	Endocrine disrupting propert	ties
Assessment	Assessment : No information available about endocrine disruption propertie for human health.	
Component:	calcium chloride	CAS-No. 10043-52-4
Endocrine disrupting properties		
Assessment	to REACH Article 57(f) or C	s not contain components ne disrupting properties according commission Delegated regulation sion Regulation (EU) 2018/605 at

SECTION 12: Ecological information

12.1. Toxicity

Component:	calcium chloride	CAS-No. 10043-52-4
	Acute toxicity	
	Fish	
LC50	: 4.630 mg/l (Pimephales promelas test; EPA 600/4-90/027)	s (fathead minnow); 96 h) (static
	Toxicity to daphnia and other aquatic in	vertebrates
NOEC	: 2.000 mg/l (Daphnia magna; 48 h Guideline 202)) (static test; OECD Test
LC50	2.400 mg/l (Daphnia magna; 48 h Guideline 202)) (static test; OECD Test
	algae	
EC50	: 2900 mg/l (Pseudokirchneriella su (OECD Test Guideline 201)	ubcapitata (green algae); 72 h)
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Bacteria

: Study scientifically unjustified.

12.2. Persistence and degradability

Component:	calcium chloride	CAS-No. 10043-52-4	
	Persistence and degradability		
	Persistence		
Result : (Related to: Water) decomposition by hydrolysis.		by hydrolysis.	
	Biodegradability		
Result	: The methods for determining the big	ological degradability are not	

12.3. Bioaccumulative potential

Component:	calcium chloride	CAS-No. 10043-52-4
	Bioaccumulation	

applicable to inorganic substances.

Result : Bioaccumulation is not expected.

12.4. Mobility in soil

Component:	calcium chloride	CAS-No. 10043-52-4
	Mobility	

Water : The product is water soluble.

12.5. Results of PBT and vPvB assessment

Data for the product			
Results of PBT and vPvB assessment			
Result	 The PBT or vPvB criteria of Annex XIII to the REACH Regu does not apply to inorganic substances. 	lation	
Component:	calcium chloride CAS-No. 10043-52-4		
Results of PBT and vPvB assessment			
Result	 The PBT or vPvB criteria of Annex XIII to the REACH Regulation does not apply to inorganic substances. 	lation	
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12.6. Endocrine disrupting properties

Data for the product

Endocrine disrupting potential

No information available about endocrine disruption properties for

environment.

Component: calcium chloride CAS-No. 10043-52-4

Endocrine disrupting potential

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

Data for the prod	luct	
	Additional ecological infor	mation
Result	: Do not flush into surface water Avoid subsoil penetration.	er or sanitary sewer system.
Component:	calcium chloride	CAS-No. 10043-52-4
Additional ecological information		
Result	: Do not flush into surface wate Avoid subsoil penetration.	er or sanitary sewer system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product : Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services. This

product enter drains. Contact waste disposal services. This product shall be disposed of or recovered in compliance with

Directive 2008/98/EC on waste as lastly amended.

Contaminated packaging : Empty contaminated packagings thoroughly. They can be

recycled after thorough and proper cleaning. If recycling is not practicable, dispose of in compliance with local regulations.

European Waste Catalogue Number

No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation

with the regional waste disposer.

SECTION 14: Transport information

Not dangerous goods for ADR, RID, IMDG and IATA.

14.1. UN number or ID number

Not applicable.

14.2. **UN proper shipping name**

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packaging group

Not applicable.

14.5. Environmental hazards

Not applicable.

14.6. Special precautions for user

Not applicable.

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

Data for the product

EU. Regulation EC No.

; The substance/mixture does not fall under this legislation.

689/2008

EU. REACH, Annex XVII, :

Point Nos.:, 3; Listed

Marketing and Use Restrictions (Regulation

1907/2006/EC)

EU. Directive

; The substance/mixture does not fall under this legislation.

2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances,

Annex I

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Component: calcium chloride CAS-No. 10043-52-4

EU. Chemicals Subject to PIC Procedure: Regulation 649/2012/EU on export and import of dangerous chemicals, as amended

: ; The substance/mixture does not fall under this legislation.

EU. REACH, Annex XVII, : Point Nos.:, 75; Listed.

Marketing and Use Restrictions (Regulation 1907/2006/EC)

EU. Directive 2012/18/EU (SEVESO

III) on major accident hazards involving dangerous substances, Annex I

; The substance/mixture does not fall under this legislation.

Notification status calcium chloride:

Regulatory List	Notification	Notification number
AICS	YES	
DSL	YES	
EINECS	YES	233-140-8
ENCS (JP)	YES	(1)-176
IECSC	YES	
INSQ	YES	
ISHL (JP)	YES	(1)-176
KECI (KR)	YES	KE-04496
NZIOC	YES	HSR003389
ONT INV	YES	
PHARM (JP)	YES	
PICCS (PH)	YES	
TCSI	YES	
TH INV	YES	2827.20
TH INV	YES	55-1-00071
TSCA	YES	
VN INVL	YES	

15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

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Full text of H-Statements referred to under sections 2 and 3.

H319 Causes serious eye irritation.

Full text of the Notes referred to under section 3.

Abbreviations and Acronyms

AU AIICL Australia. Industrial Chemicals Act (AIIC) List

BCF bioconcentration factor
BOD biochemical oxygen demand
CAS Chemical Abstracts Service

CLP Classification, Labelling and Packaging

CMR carcinogenic, mutagenic or toxic to reproduction

COD chemical oxygen demand

DNEL derived no-effect level

DSL Canada. Environmental Protection Act, Domestic Substances List EINECS European Inventory of Existing Commercial Chemical Substances

ELINCS European List of Notified Chemical Substances

ENCS (JP) Japan. Kashin-Hou Law List

Globally Harmonized System of Classification and Labelling of

Chemicals

IECSC China. Inventory of Existing Chemical Substances
INSQ Mexico. National Inventory of Chemical Substances

ISHL (JP) Japan. Inventory of Industrial Safety & Health

KECI (KR) Korea. Existing Chemicals Inventory

LC50 median lethal concentration

LOAEC lowest observed adverse effect concentration

LOAEL lowest observed adverse effect level

LOEL lowest observed effect level

NDSL Canada. Environmental Protection Act. Non-Domestic Substances

List

NLP no-longer polymer

NOAEC no observed adverse effect concentration

NOAEL no observed adverse effect level NOEC no observed effect concentration

NOEL no observed effect level

NZIOC New Zealand. Inventory of Chemicals

OECD Organisation for Economic Cooperation and Development

OEL occupational exposure limit
ONT INV Canada. Ontario Inventory List

PBT persistent, bioaccumulative and toxic

PHARM (JP) Japan. Pharmacopoeia Listing

Philippines. Inventory of Chemicals and Chemical Substances PICCS (PH)

PNEC predicted no-effect concentration **REACH Auth. No.: REACH Authorisation Number**

REACH AuthAppC. No. REACH Authorisation Application Consultation Number

STOT specific target organ toxicity **SVHC** substance of very high concern

TCSI Taiwan. Existing Chemicals Inventory

TH INV Thailand. Existing Chemicals Inventory from FDA

TSCA US. Toxic Substances Control Act

substance of unknown or variable composition, complex reaction **UVCB**

products or biological materials

VN INVL Vietnam. National Chemical Inventory vPvB very persistent and very bioaccumulative

Further information

Key literature references:

and sources for data

Supplier information and data from the "Database of registered substances" of the European Chemicals Agency (ECHA) were

used to create this safety data sheet.

Methods used for

Hints for trainings

product classification

The classification for human health, physical and chemical hazards and environmental hazards were derived from a

combination of calculation methods and if available test data. The workers have to be trained regularly on the safe handling

of the products based on the information provided in the Safety Data Sheet and the local conditions of the workplace. National regulations for the training of workers in the handling of

hazardous materials must be adhered to.

Other information The information provided in this Safety Data Sheet is

> correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and

does not constitute a legal relationship.

The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in

the text.

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Brouwland