

SAFETY DATA SHEET (According to Regulation (EC) N° 2015/830)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier:

Bindly - Calcium Chloride

Spherification agent for molecular gastronomy

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

Functional category: Spherification agent

Sector of use: SU4 Manufacture of food products

1.3 Details of the supplier of the safety data sheet

Company name: BDF NATURAL INGREDIENTS S.L.

Street: C/ Les serres, 22

Postal code / City: 17244 Cassà de la Selva

Telephone: +34972183300

e-mail: info@bdfingredients.com

1.4 Emergency telephone number

+34972183300 (during office hours 7:00-15:00)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

In accordance with regulation (EU) No 1272/2008:

Resp. Sens 1: Causes serious eye irritation.

2.2 Label elements

Labelling in accordance with Regulation (EU) No 1272/2008:

Pictograms:



Signal word: Warning

Contains: calcium chloride dihydrate

Hazards statements:

H319 Causes serious eye irritation

Precautionary statement:

P264 – Wash skin thoroughly after handling.

P280 – Wear eye protection/face protection.

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.

2.3 Other Hazards

This substance/mixture does not contain components that are considered to be bioaccumulative and persistent toxic (PBT) or very bioaccumulative and very persistent (vPvB) at levels of 0.1% or more.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

NAME	CAS #	No. CE #	N° Reg. REACH UE	E Number
Calcium Chloride dihydrate	10035-04-8	233-140-8	01-2119494219-28-xxxx	E-509
Classification ((*)Regulation (EC) N°1272/2008)				
Eye Irrit.2		H319		

(*)The complete text of the H phrases is given in section 16 of this Safety Data Sheet

3.2 Mixtures

Not applicable

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General information: Remove contaminated clothing immediately. In case of discomfort, see a doctor or physician.

After inhalation: Take outdoors. If symptoms persist, consult a doctor.

After contact with skin: Wash immediately with soap and plenty of water. If skin irritation persists, call a doctor or physician.

After contact with eyes: Rinse immediately with plenty of water, also under the eyelids, for at least 5 minutes. Consult an ophthalmologist as soon as possible. If possible, go to an ophthalmic clinic.

After ingestion: Rinse mouth with water. Never give anything by mouth to an unconscious person. If symptoms persist, consult a doctor or physician.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Non-flammable. Use water spray or extinguishing measure that is appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

In case of fire, hazardous decomposition products can be formed, such as: Hydrogen chloride gas, chlorine

5.3 Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Wear personal protective equipment. Extinguishing water must be collected separately, it must not enter the sewerage system. Cool closed containers exposed to fire with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment. Keep away from unprotected persons. Avoid formation of dust. Ensure proper ventilation. Avoid contact with eyes and skin.

6.2 Environmental precautions

Do not discharge into surface waters or the sewage system. Avoid penetration into the subsoil. In case of infiltration into the ground, notify the authorities. If the product contaminates rivers, lakes or sewers, inform the respective authorities.

6.3 Methods and material for containment and cleaning up

Use mechanical handling equipment. Store in appropriate, closed containers for disposal.

6.4 Reference to other sections

For exposure control and individual protection measures, see section 8.

For later elimination of waste, follow the recommendations under section 13

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling: Keep container tightly closed. Wear personal protective equipment. Avoid formation of dust. Ensure adequate ventilation. Avoid contact

with skin, eyes and clothing. Emergency eye wash fountains and safety showers should be located in the immediate vicinity.

Hygiene measures: Keep away from food, drink and feed. Do not smoke, eat or drink while working. Wash your hands before breaks and after finishing the work day. Take off all contaminated clothing immediately.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels: Store in original container. Suitable materials for containers: polyethylene; polypropylene; unsuitable materials for containers: aluminium.

Additional information on storage conditions: Store perfectly closed in a dry and cool place.

Instructions for joint storage: Keep away from food, drink and animal feed.

7.3 Specific end use(s)

None

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

These products don't have occupational exposure limit (OEL).

8.2 Exposure controls

Appropriate engineering controls: Refer to the protection measures in the lists in sections 7 and 8.

Protective and hygiene measures: To wash the hands and other exposed areas with soft soap before eating, drinking, smoking or when the working is finished. To maintain the working area as clean as possible.

Personal protection:

- Respiratory Protection. The use of dust mask (filter P2) is recommended.
- Eye protection. The use of safety goggles is recommended.
- Protection of hands. The use of gloves is recommended due to possible irritation.
- Skin protection. Monkey should take to minimize the potential exposure of skin surface.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Solid, colorless
Scent	odorless
PH	7 - 11 (20 °C) solution 10
Melting/Freezing Point	176 °C Decomposition
Boiling points	> 1.600 °C
Point of inflammation	Not applicable
Inflammability	Not inflammable
Explosive properties	None
Combustible properties	None
Vapor properties	Not applicable
Solubility in water, 25°C (% by weight)	745 g/l (20 °C) 1590 g/l (100 °C)
Viscosity	Not applicable
Vapor density	Not applicable
Density	2,15 g/cm ³ (25 °C)
Speed evaporation	Not applicable
Auto-ignition temperature	Not applicable

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, no hazardous reactions occur.

10.4 Conditions to avoid

Heat, flames and sparks. Avoiding humidity.

Decomposition at 176 °C

10.5 Incompatible materials

Strong Oxidizing Agents, Strong Reducing Agents, Boron Trifluoride, Vinyl Compounds, Sulfuric Acid, Trichloroethylene.

10.6 Hazardous decomposition products

Vapors/Toxic Gases, Hydrogen Chloride Gas, Chlorine.

SECTION 11: TOXICOLOGICAL INFORMATION

Means of exposure: Inhalation. Ingestion

Serious effects of overexposure

- Contacts with eyes: the exposure of the powder may cause irritation
- Contact with skin: slight irritation may be noted
- Sensitization: adverse effects are not found
- Ingestion: the ingestion of big quantities may cause irritation
Inhalation: the inhalation of big quantities may cause slight irritation
- Complementary notes: None

Chronic effects of overexposure

- Carcinogenic effects: Not available due to the nature of the product
- Teratogenic effects: Not available due to the nature of the product
- Mutagenic effects: Not available due to the nature of the product
- Slowed toxicity: Not available due to the nature of the product

Complementary notes: the long-time exposure at levels superior to the occupational limits can overload the cleaning mechanisms of the lungs and therefore causes serious injuries to the lungs.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Acute toxicity		
Fish	CE50	4630 mg/l (Pimephales promelas (Fat-headed fish); 96 h)
Daphnia and other aquatic invertebrates	CL50	2400 mg/l (Daphnia magna (large sea flea); 48 h)
Algae	CE50	2900 mg/l (Pseudokirchneriella subcapitata; 72 h) (OECD TG 201)
Chronic Toxicity		
Fish	The study is scientifically unjustified	
Aquatic invertebrates	EC10	320 mg/l (Invertebrates; 21 d)

12.2 Persistence and degradability

Persistence	(Related to: Water) Decomposition by hydrolysis.
Biodegradability	The methods for the determination of biological degradability are not applicable for inorganic substances.

12.3 Bio accumulative potential

The study is scientifically unjustified.

12.4 Ground mobility

The study is scientifically unjustified.

12.5 Results of PBT and vPvB assessment

This substance/mixture does not contain components that are considered to be bioaccumulative and persistent toxic (PBT) or very bioaccumulative and very persistent (vPvB) at levels of 0.1% or more.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: Disposal with normal waste is not allowed. Special disposal is required in accordance with local regulations. Do not allow the product to enter the sewage system. Contact the waste disposal services
Contaminated containers: Empty contaminated containers properly. They can be recycled after proper cleaning. If recycling is not possible, dispose of in accordance with local regulations.

Follow the provisions of Directive 2008/98/EC regarding waste management.

13.2 Polluted packages

To be eliminated in a safe way in conformity with the national /local regulations

SECTION 14: TRANSPORT INFORMATION

14.1 Characteristic name of the transport

Not regulated

14.2 Classification in transport

ADR: Not classified

IMDG: Not classified

ICAO/IATA: Not classified

RID: Not classified

SECTION 15: REGULATORY INFORMATION

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

The product is not affected by the Regulation: EU Regulation No. 649/2012 concerning the export and import of dangerous chemicals.

The product is not affected by the Regulation: EU REACH, Annex XVII, Marketing and Use Restrictions (Regulation 1907/2006/EC).

The product is not affected by the Regulation: EU Directive 2012/18 / EU (SEVESO III) Annex I

Notification status calcium chloride dihydrate:

Regulatory list	Notification	Notification number
AICS	Yes	
INV (CN)	Yes	
ENCS (JP)	Yes	(1)-176
ISHL (JP)	Yes	(1)-176

15.2 Chemical safety assessment

A Chemical Safety Assessment has been conducted for this substance.

SECTION 16: OTHER INFORMATION

The information provided in this safety data sheet is correct to the best of our knowledge on the date of its revision. The information given only describes the products with respect to safety provisions and is not to be considered as a guarantee or specification of quality, nor does it constitute a legal relationship. The information contained in this safety data sheet applies only to the specific material designated and may not be valid if used in combination with other products or in any process, unless specified in the text.

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Version: 3

BDF Natural Ingredients, SL shall not be held liable for any damage resulting from handling or from contact with the above product.

The classification for human health, physical and chemical hazards and environmental hazards are derived from a combination of calculation methods and analytical data if available.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2015/830 of May 2015 amending

Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

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