



SAFETY DATA SHEET



SECTION I – PRODUCT AND COMPANY IDENTIFICATION

Product name: **CALCIUM CHLORIDE DIHYDRATE**

Product Identifier:

Relevant identified uses: Industrial.

BOLLAND Y CÍA. S.A.

J. D. Perón 925 6° piso, (C1038AAS) Ciudad Autónoma de Buenos Aires - Argentina.

T: +54 11 4320 7500

Emergency phone (24 hours): **BOLLAND PQB 0 800 222 1030 (from Argentina)**
+5411 4320 7500 (other countries)

SECTION II – HAZARDS IDENTIFICATION

Classification according to Globally Harmonized System.

Hazard pictogram(s):



Eye irritation (Category 2)

Signal word: **WARNING**

Hazard statements: H319 - Causes serious eye irritation.

Precautionary statements:

P264 - Wash thoroughly after handling.

P280 - Wear protective gloves, protective clothing, eye protection and 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.

Additional information

None.

SECTION III - COMPOSITION / INFORMATION ON INGREDIENTS

Calcium chloride dihydrate (CAS 10035-04-8): 95% - Eye Irrit. 2

SECTION IV – FIRST AID MEASURES

GENERAL ADVICE:

Avoid exposure to the product, taking appropriate protective measures. Get medical advice.

EYE CONTACT:

Immediately flush with water for at least 15 minutes, holding eyelids apart to ensure that all eye and lid tissues rinsed. Washing eyes within several

Version: 1

Emission date: September, 2017

Replace:

Created: CIQUIME

Revised: BOLLAND Y CÍA. S.A.

	seconds is essential to achieve maximum effectiveness. If you have contact lenses, remove them after the first 5 minutes, then continue rinsing eye. Get medical advice.
SKIN CONTACT:	Wash immediately after contact with soap and water for at least 15 minutes. Remove contaminated clothing and wash before reuse.
INHALATION:	For those providing assistance, avoid exposure. Use proper protection if necessary. Move victim and get fresh air. Keep calm. If not breathing, give artificial respiration. Get medical advice.
INGESTION:	DO NOT INDUCE VOMITING. Rinse mouth with water. Never give anything by mouth to an unconscious person. Get medical advice. If vomiting occurs spontaneously, place victim on side to reduce the risk of aspiration.
SYMPTOMS:	Inhalation: May cause respiratory irritation, with symptoms of coughing and shortness of breath. Skin contact: May cause slight irritation to dry skin; Strong solutions, or solids in contact with the skin can cause severe irritation, even burns. Eye contact: May cause mechanical abrasion or, more severe, burns from the heat of hydrolysis and chloride irritation. Ingestion: May cause severe irritation of mucous membranes due to heat of hydrolysis. Large amounts can cause gastrointestinal disorders, vomiting, abdominal pain.
MEDICAL ADVICE:	Provide symptomatic treatment. For more information, contact a Poison Control Center.

SECTION V – FIREFIGHTING MEASURES

EXTINGUISHING MEDIA:	Use dry chemical, foam, sand or water spray. Use the product according to surrounding materials. DO NOT use a solid water stream as it may scatter and spread fire.
FLASH POINT:	N/D
FLAMMABLE LIMITS:	N/D
SPECIAL HAZARDS:	The product and its packaging can burn but they are not easily ignited. In case of fire may release irritating fumes and gases and/or toxic gases, such as metal oxides and other substances derived from incomplete combustion.
SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:	Use self-contained breathing apparatus. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations. For large spills wear protective clothing against chemicals, which is specifically recommended by the manufacturer. It may provide little or no thermal protection.

ADVICE FOR FIREFIGHTERS: Spray-water the packaging to avoid ignition if exposed to excessive heat or fire. Withdraw packaging if not reached by the flames and can be done without risk.
Soak thoroughly with water to cool and prevent re-ignition. Cool surroundings with water.

SECTION VI – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Ventilate immediately, avoiding dust cloud formation. Do not allow reuse of spilled product.

ENVIRONMENTAL PRECAUTIONS: Contain product and avoid dispersion into the environment. Prevent product reaches waterways.

CONTAINMENT AND CLEANING UP: Collect spillage with shovel and place into a suitable container. Sweep or vacuum to avoid dust dispersal. May be necessary to moisten slightly. Clean and thoroughly wash the contaminated area.

SECTION VII – HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Do not eat, drink or smoke during handling. Avoid contact with eyes, skin and clothing. Wash after handling.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES: Store in a clean, dry, well-ventilated area. Keep containers closed. Keep away from Strong oxidizing agents, acids and bases. Aqueous solutions may corrode some metals.
Material appropriate packaging: supplied by the manufacturer.
NFPA Code: 1 0 0 0

SECTION VIII – EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL PARAMETERS: TLV-TWA (ACGIH): N/D
TLV-STEL (ACGIH): N/D
PEL (OSHA 29 CFR 1910.1000): N/D
IDLH (NIOSH): N/D

EXPOSURE CONTROLS: Keep workplace ventilated. The normal routine ventilation is usually adequate. Local hoods should be used for operations that produce or release large amounts of product. In low or confined areas should be provided mechanical ventilation.
Provide showers and eyewash stations.

PERSONAL PROTECTION EQUIPMENT, INHALATION: Where necessary, use a dust and particles (P1) respirator. Special attention to oxygen levels in the air should be paid.
If large releases occur, wear self-contained breathing apparatus (SCBA).

SKIN PROTECTION: When handling this product should wear impermeable protective PVC, nitrile or butyl gloves (complying with standards EN 374), clothes and safety footwear resistant to chemicals.

EYE AND FACE PROTECTION: Should wear safety glasses, chemical splash-proof (complying with EN 166).

SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Solid.
ODOUR:	N/D
ODOUR THRESHOLD:	N/D
PH:	8,5 ± 2,0
MELTING POINT:	N/D
BOILING POINT:	N/D
FLASH POINT:	N/D
EVAPORATION RATE:	N/D
AUTO-IGNITION TEMPERATURE:	N/D
EXPLOSIVE LIMITS:	N/D
VAPOUR PRESSURE (20°C):	N/D
VAPOUR DENSITY (AIR=1):	N/D
RELATIVE DENSITY (20°C):	N/D
SOLUBILITY (in water, 20°C):	N/D
PARTITION COEFFICIENT (logKo/w):	N/D
VISCOSITY (cSt, 20°C):	N/D
OTHER PROPERTIES:	None.

SECTION X – STABILITY AND REACTIVITY

REACTIVITY:	It is not expected that product reactions or decomposition may occur under normal storage conditions. It does not contain organic peroxides. It is not corrosive to metals as a solid, but in solution it is slightly corrosive.
CHEMICAL STABILITY:	The product is chemically stable and does not require stabilizers. No hazardous polymerization is expected.
CONDITIONS TO AVOID:	Avoid high temperatures and humidity.
HAZARDOUS DECOMPOSITION PRODUCTS:	When heated, it may release toxic and irritating vapors. In case of fire, see section 5.
INCOMPATIBLE MATERIALS:	Strong oxidizing agents, acids and bases. Aqueous solutions may corrode some metals.

SECTION XI – TOXICOLOGICAL INFORMATION

ROUTES OF EXPOSURE:	inhalation, skin and eye contact.
ACUTE EFFECTS:	Inhalation: May cause respiratory irritation, with symptoms of coughing and shortness of breath. Skin contact: May cause slight irritation to dry skin; Strong solutions, or

	<p>solids in contact with the skin can cause severe irritation, even burns.</p> <p>Eye contact: May cause mechanical abrasion or, more severe, burns from the heat of hydrolysis and chloride irritation.</p> <p>Ingestion: May cause severe irritation of mucous membranes due to heat of hydrolysis. Large amounts can cause gastrointestinal disorders, vomiting, abdominal pain.</p>
CARCINOGENICITY AND MUTAGENICITY:	There is no information on any component of this product present at levels greater than or equal to 0.1% as probable, possible or confirmed human carcinogen by the IARC (International Agency for Research on Carcinogens).
ANIMAL TOXICITY VALUES:	<p>ATE-LD50 oral (rat, calc.): > 2000 mg/kg</p> <p>ATE-LD50 der (rabbit, calc.): > 5000 mg/kg</p> <p>ATE-LC50 inh. (rat, 4hs., calc.): > 5 mg/l</p> <p>Skin irr. (rabbit, estim.): not irritant</p> <p>Eye irr. (rabbit, estim.): irritant</p> <p>Skin sens (Guinea pig, estim.): not sensitising</p> <p>Resp. sens (Guinea pig, estim.): not sensitizing</p>
SECTION XII – ECOLOGICAL INFORMATION	
ECOTOXICITY:	<p>ATE-EC50 (O. mykiss, calc., 48 h): > 100 mg/l</p> <p>ATE-EC50 (D. magna, calc., 48 h): > 100 mg/l</p> <p>ATE-EC50 (P. subcapitata, calc., 48 h): > 100 mg/l</p> <p>ATE-EC50 (T. pyriformis, calc., 48 h): > 100 mg/l</p> <p>ATE-NOEC (D. rerio, calc., 14 d): > 1 mg/l</p> <p>ATE-NOEC (D. magna, calc., 14 d): > 1 mg/l</p>
PERSISTENCE AND DEGRADABILITY:	<p>BIODEGRADABILITY (-): The product is inorganic.</p> <p>PNEC (water): N/D</p> <p>PNEC (sea water): N/D</p> <p>PNEC-STP: N/D</p>
BIOACCUMULATIVE POTENTIAL:	<p>Log Ko/w (OCDE 107 o 117): N/D</p> <p>BIOCONCENTRATION FACTOR - BCF (OCDE 305): N/D</p>
MOBILITY IN SOIL:	<p>HENRY CONSTANT (20°C): N/D</p> <p>LogKoc: N/D</p> <p>DISTRIBUTION (%):</p>
OTHER ADVERSE EFFECTS:	Does not contain organic halogens nor metals.

SECTION XIII – DISPOSAL CONSIDERATIONS

Both the excess product and empty containers should be disposed of in accordance with current legislation on Environmental Protection and in particular Hazardous Waste Laws. You must classify the waste and dispose of it by an authorized company. Both the excess product and empty containers should be disposed of in accordance with current legislation regarding the Protection of Environment and particularly of hazardous waste. It should classify the waste and dispose of it by an authorized company.

Empty containers may contain residue and thus be dangerous. Do not attempt to refill or clean containers without possessing the appropriate instructions.

SECTION XIV – TRANSPORT INFORMATION**TRANSPORT BY LAND**

Proper Shipping Name:	NOT CLASSIFIED AS A DANGEROUS GOODS
UN/ID Number:	NOT CLASSIFIED AS A DANGEROUS GOODS
Hazard class:	NOT CLASSIFIED AS A DANGEROUS GOODS
Packing group:	NOT CLASSIFIED AS A DANGEROUS GOODS
Hazard identification number:	NOT CLASSIFIED AS A DANGEROUS GOODS
Excepted and limited quantity:	NOT CLASSIFIED AS A DANGEROUS GOODS

AIR TRANSPORT (ICAO/IATA)

Proper Shipping Name:	NOT CLASSIFIED AS A DANGEROUS GOODS
UN/ID Number:	NOT CLASSIFIED AS A DANGEROUS GOODS
Hazard class:	NOT CLASSIFIED AS A DANGEROUS GOODS
Packing group:	NOT CLASSIFIED AS A DANGEROUS GOODS
PAX and Cargo Packing instructions:	NOT CLASSIFIED AS A DANGEROUS GOODS
Cargo Packing instructions:	NOT CLASSIFIED AS A DANGEROUS GOODS
ERC:	NOT CLASSIFIED AS A DANGEROUS GOODS

SEA TRANSPORT (IMO)

Proper Shipping Name:	NOT CLASSIFIED AS A DANGEROUS GOODS
UN/ID N°:	NOT CLASSIFIED AS A DANGEROUS GOODS
Hazard class:	NOT CLASSIFIED AS A DANGEROUS GOODS
Packing group:	NOT CLASSIFIED AS A DANGEROUS GOODS
EMS:	NOT CLASSIFIED AS A DANGEROUS GOODS
Marine pollutant:	NO

SECTION XV – REGULATORY INFORMATION

Regulations and safety legislation specific for the substance or mixture:

Not dangerous for the ozone layer (1005/2009/CE).

Volatile organic compounds (VOC's) (1999/13/EC): N/D

Safety Data Sheet according to Resolution 801/2015 of the Superintendency of Occupational Risks MTESS and IRAM 41400: 2013, Argentina.

Resolution 295/2003 Ministry of Labour, Employment and Social Security, Argentina.

National Law No. 24,051 and its regulations, Argentina.

Resolution 195/97 Department of Public Works and Transportation, Republic Argentina.

Regulation (EC) 1272/2008 on classification, labelling and packaging of chemicals and their mixtures, as amended.

Regulation (EC) 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), as amended.

Dir. 91/689 / EEC on hazardous waste and Dir. 91/156 / EEC waste management.

European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR 2015).

Regulations concerning the International Carriage of Dangerous Goods by Rail (RID 2015).

International Maritime Dangerous Goods Code (IMDG 34 ed.) IMO Resolution MSC 90/28 / Add.2.

IBC Code / MARPOL, IMO Resolution MEPC 64/23 / Add.1.

Regulations of the International Air Transport Association (IATA 56 ed., 2015) on the transport of dangerous goods by air.

Globally Harmonized System of Classification and Labelling of Chemicals, fifth edition, 2015 (GHS 2015).

International Agency for Research on Cancer (IARC) classification of carcinogens. Revision: 03/23/2015.

SECTION XVI – OTHER INFORMATION

ATE: acute toxicity estimation.

LD: lethal dose.

N/A: no information available.

LC: lethal concentration.

The classification was performed based on chemical analogues and product information.

SECTION 2: classification by analogy with other products, and based on product data.

SECTION 9: product data.

SECTION 11 and 12: analogy with other products.

Acute toxicity: calculation method for estimating acute toxicity.

HEALTH	1
FLAMMABILITY	0
REACTIVITY	0
TARGET ORGANS	0



Obligatory safety goggles.



Obligatory gloves.



Obligatory overall.

The information and recommendations given here are to our knowledge correct, and is the responsibility of each user to determine whether they are accurate, appropriate and complete for its particular use. The conditions and / or methods of handling, storage, use and disposal of the product are beyond our control and perhaps of our knowledge. For these and other reasons our company is not liable for loss, damage or caused or related to the handling, storage, use or disposal of this product costs. Our company is not responsible for any damage or incident, direct or indirect, of any nature that may result from the use of this information. Any information not contained in this SDS must be understood as undetermined or unknown.

Version: 1

Emmision date: September, 2017

Replaces:

Created: CIQUIME

Revised: BOLLAND Y CÍA. S.A.