SAFETY DATA SHEET

Calcium chloride

C1016-500G

Version 1.2 Issuing date 07/22/2016 Revision Date 10/02/2017 Print Date 08/06/2019

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product information

Trade name	:	Calcium chloride
Number	:	000000020204
Recommended use of the chemical and restrictions on use	:	Laboratory chemicals
Manufacturer or supplier's details	:	Honeywell Specialty Chemicals Seelze GmbH Wunstorfer Straße 40 Seelze, 30926
For further information, please contact:	:	1-800-368-0050 +1-231-726-3171 (Monday-Friday, 9:00am-5:00pm)
In case of emergency call	:	**Medical: 1-800-498-5701 or +1-303-389-1414** **Transportation (CHEMTREC): 1-800-424-9300 or +1-703-527-3887** **In Japan: +(81)-345209637** (24 hours/day, 7 days/week)

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification of the substance or mixture	:	Eye irritation, Category 2A

GHS Label elements, including precautionary statements

Symbol(s) :

Signal word	:	Warning
Hazard statements	:	Causes serious eye irritation.
Precautionary statements	:	**Prevention:** Wash skin thoroughly after handling.

Wear protective gloves/ eye protection/ face protection.

Response:
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/ attention.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : CaCl2

Chemical nature : Substance

Chemical name	CAS-No.	Concentration
Calcium chloride Calcium chloride	10043-52-4	100.00 %

Note: none

4. FIRST AID MEASURES

General advice : First aider needs to protect himself.
Move out of dangerous area.
Take off all contaminated clothing immediately.

Inhalation : If inhaled, remove to fresh air.

Skin contact : After contact with skin, wash immediately with plenty of water.

Eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Ingestion : When swallowed, allow water to be drunk.
Call a physician immediately.

5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water spray
Foam
Carbon dioxide (CO2)
Dry powder

Specific hazards during : In case of fire hazardous decomposition products may be

firefighting		produced such as: Calcium oxides Hydrogen chloride gas
Special protective equipment for firefighters	:	Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.
Further information	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Wear personal protective equipment. Avoid dust formation. Avoid contact with skin, eyes and clothing.
Environmental precautions	:	Should not be released into the environment.
Methods and materials for containment and cleaning up	:	Avoid dust formation. Use mechanical handling equipment. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling

Precautions for safe handling	:	Wear personal protective equipment. Use only with adequate ventilation.
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.

Storage

Conditions for safe storage, including any incompatibilities	:	Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container. Protect from atmospheric moisture and water.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters
Contains no substances with occupational exposure limit values.

Individual protection measures, such as personal protective equipment

Respiratory protection	:	In the case of dust or aerosol formation use respirator with an approved filter.
Hand protection	:	Latex gloves Gloves must be inspected prior to use. Replace when worn.
Eye protection	:	Safety goggles
Skin and body protection	:	Protective suit
Hygiene measures	:	Take off all contaminated clothing immediately. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday. When using do not eat or drink.
Protective measures	:	Ensure that eyewash stations and safety showers are close to the workstation location. Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment. Avoid breathing dust. Avoid contact with skin, eyes and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	solid
Colour	:	colourless
Odour	:	odourless
pH	:	ca. 6.0 at , 20 °C
Melting point/range	:	765 °C
Boiling point/boiling range	:	ca. 1,900 °C at 1,013 hPa
Flash point	:	Note: Not applicable
Flammability	:	The product is not flammable.
Lower explosion limit	:	Note: Not applicable

Upper explosion limit	:	Note: Not applicable
Vapour pressure	:	Note: no data available
Density	:	ca. 2.150 g/cm3 at 20 °C
Water solubility	:	Note: completely soluble
Partition coefficient: n-octanol/water	:	Note: no data available
Ignition temperature	:	Note: Not applicable
Decomposition temperature	:	Note: No decomposition if used as directed.
Molecular weight	:	110.98 g/mol
Bulk density	:	ca. 640 kg/m3

10. STABILITY AND REACTIVITY

Chemical stability	:	Stable under recommended storage conditions.
Possibility of hazardous reactions	:	Hazardous polymerization does not occur.
Conditions to avoid	:	Protect from atmospheric moisture and water. Avoid dust formation.
Incompatible materials to avoid	:	Strong acids Bromine Trifluoride Methyl Vinyl Ether Zinc Boron compounds
Hazardous decomposition products	:	In case of fire hazardous decomposition products may be produced such as: Calcium oxides

Hydrogen chloride gas

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	:	LD50: 2,301 mg/kg Species: Rat Method: OECD Test Guideline 401
Acute inhalation toxicity	:	Note: no data available
Acute dermal toxicity	:	LD50: > 5,000 mg/kg Species: Rabbit
Skin irritation	:	Species: Rabbit Result: No skin irritation Method: OECD Test Guideline 404
Eye irritation	:	Species: Rabbit Result: Irritating to eyes. Method: OECD Test Guideline 405
Sensitisation	:	Note: no data available
Genotoxicity in vitro	:	Test Method: Ames test Metabolic activation: with metabolic activation Result: negative Method: OECD Test Guideline 471
	:	Test Method: Chromosome aberration test in vitro Metabolic activation: without metabolic activation Result: negative Method: OECD Test Guideline 473
Teratogenicity	:	Species: Rat Application Route: Oral exposure Note: Did not show teratogenic effects in animal experiments.

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish	:	static test LC50: 4,630 mg/l Exposure time: 96 h Species: Pimephales promelas (fathead minnow)
Toxicity to daphnia and other aquatic invertebrates	:	static test LC50: 2,400 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) Method: OECD Test Guideline 202
Toxicity to algae	:	Biomass EC50: 2,900 mg/l Exposure time: 72 h Species: Pseudokirchneriella subcapitata (green algae) Method: OECD Test Guideline 201
	:	Growth rate EC50: > 4,000 mg/l Exposure time: 72 h Species: Pseudokirchneriella subcapitata (green algae) Method: OECD Test Guideline 201

Persistence and degradability

Biodegradability	:	Note: The methods for determining the biological degradability are not applicable to inorganic substances.

13. DISPOSAL CONSIDERATIONS

Disposal methods	:	In accordance with local and national regulations.

14. TRANSPORT INFORMATION

ADR
Not dangerous goods

IATA
Not dangerous goods

IMDG
Not dangerous goods

RID
Not dangerous goods

15. REGULATORY INFORMATION

National regulatory information

Fire Service Law	:	Not relevant
Poisonous and Deleterious Substances Control Law	:	Not relevant

Other international regulations

Notification status

US. Toxic Substances Control Act	:	On TSCA Inventory
Australia. Industrial Chemical (Notification and Assessment) Act	:	On the inventory, or in compliance with the inventory
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)	:	All components of this product are on the Canadian DSL
Japan. Kashin-Hou Law List	:	On the inventory, or in compliance with the inventory
Korea. Existing Chemicals Inventory (KECI)	:	On the inventory, or in compliance with the inventory

Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	:	On the inventory, or in compliance with the inventory
China. Inventory of Existing Chemical Substances	:	On the inventory, or in compliance with the inventory
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	:	On the inventory, or in compliance with the inventory

16. OTHER INFORMATION

		HMIS III	NFPA
Health hazard	:	2	2
Flammability	:	0	0
Physical Hazard	:	1	
Instability	:		1

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.
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