# Chemical Safety Data Sheet MSDS / SDS

#### **Calcium carbonate SDS**

Revision Date: 2024-04-25 Revision Number: 1

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

#### Product identifier

Product name: Calcium carbonate

CAS: 471-34-1

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

Relevant identified For R&D use only. Not for medicinal, household or other use.

uses:

Uses advised none

against:

### Company Identification

Company: Chemicalbook.in

Address: 5 vasavi Layout Basaveswara Nilayam Pragathi Nagar Hyderabad, India -500090

Telephone: +91 9550333722

### **SECTION 2: Hazards identification**

#### Classification of the substance or mixture

Not classified.

# GHS label elements, including precautionary statements Signal word No signal word Hazard statement(s) none Precautionary statement(s) Prevention none Response none Storage none Disposal none Other hazards which do not result in classification no data available

# **SECTION 3: Composition/information on ingredients**

#### Substance

Chemical name: Calcium carbonate

Common names and Calcium carbonate

synonyms:

CAS number: 471-34-1 EC number: 207-439-9

Concentration: 100%

#### SECTION 4: First aid measures

#### Description of necessary first-aid measures

#### If inhaled

Fresh air.

#### Following skin contact

Rinse skin with plenty of water or shower.

### Following eye contact

Rinse with plenty of water (remove contact lenses if easily possible).

#### Following ingestion

Rinse mouth.

#### Most important symptoms/effects, acute and delayed

Exposure Routes: inhalation, skin and/or eye contact Symptoms: Irritation eyes, skin, respiratory system; cough Target Organs: Eyes, skin, respiratory system (NIOSH, 2016)

Exposure Routes: inhalation, skin and/or eye contact Symptoms: Irritation eyes, skin, mucous membrane; cough, sneezing, rhinorrhea (discharge of thin mucus); lacrimation (discharge of tears) Target Organs: Eyes, skin, respiratory system (NIOSH, 2016) Exposure Routes: inhalation, skin and/or eye contact Symptoms: Irritation eyes, skin, mucous membrane, upper respiratory system; cough, sneezing, rhinorrhea (discharge of thin mucus); lacrimation (discharge of tears) Target Organs: Eyes, skin, respiratory system (NIOSH, 2016)

### Indication of immediate medical attention and special treatment needed, if necessary

A serum calcium concentration exceeding 2.6 mmol per liter (10.5 mg per 100 mL) is considered a hypercalcemic condition. Withholding additional administration of calcium and any other medications that may cause hypercalcemia usually resolves mild hypercalcemia in asymptomatic patients, when patient renal function is adequate. Calcium supplements

## **SECTION 5: Firefighting measures**

### Suitable extinguishing media

In case of fire in the surroundings, use appropriate extinguishing media.

#### Specific hazards arising from the chemical

Not combustible.

#### Special protective actions for fire-fighters

In case of fire in the surroundings, use appropriate extinguishing media.

#### SECTION 6: Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

Personal protection: particulate filter respirator adapted to the airbome concentration of the substance. Sweep spilled substance into covered containers.

#### Environmental precautions

Personal protection: particulate filter respirator adapted to the airbome concentration of the substance. Sweep spilled substance into covered containers.

#### Methods and materials for containment and cleaning up

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Sweep spilled substance into covered containers.

# **SECTION 7: Handling and storage**

#### Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

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

Separated from acids, aluminium, ammonium salts, fluorine and magnesium. Separated from acids, aluminium and ammonium salts.

### SECTION 8: Exposure controls/personal protection

### Control parameters

## Occupational Exposure limit values

Component	Calcium	Calcium carbonate				
CAS No.	471-34-1					
	Limit value - Eight hours		Limit value - S	Limit value - Short term		
	ppm	<sub>mg/m</sub> 3	ppm	<sub>mg/m</sub> 3		
Australia	?	10 (1)	?	?		
Canada - Québec	?	10	?	?		
France	?	10 inhalable aerosol	?	?		
Hungary	?	10 inhalable aerosol	?	?		
Ireland	?	10 (1)	?	?		
?	?	4 (2)	?	?		
Latvia	?	6	?	?		
New Zealand	?	10 (1)	?	?		
Poland	?	10	?	?		
Singapore	?	10 (limestone, marble)	?	?		
Switzerland	?	3 respirable aerosol	?	?		
USA - OSHA	?	15 total dust	?	?		
?	?	5 respirable dust	?	?		
United Kingdom	?	10 inhalable aerosol	?	?		
?	?	4 respirable aerosol	?	?		
	Remarks					
Australia	(1) This	(1) This value is for inhalable dust containing no asbestos and				
Ireland	(1) Inhal	(1) Inhalable fraction (2) Respirable fraction				
New Zealand	(1) The	(1) The value for inhalable dust containing no asbestos and less than 1% free silica.				

### Biological limit values

no data available

# Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

Individual protection measures, such as personal protective equipment (PPE)

### Eye/face protection

Wear safety goggles.

# Skin protection

Protective gloves.

### Respiratory protection

Avoid inhalation of dust. Use local exhaust.

#### Thermal hazards

no data available

# SECTION 9: Physical and chemical properties and safety characteristics

Physical state: Solid. Powder.

Colour: White.
Odour: Odorless

Melting 825 °C. Remarks: Calcium carbonate (aragonite).;1 330 °C. Remarks: Calcium carbonate

point/freezing (calcite).

point:

Boiling point or 333.6°C at 760mmHg

initial boiling point and boiling range:

Flammability: Noncombustible Solid

Lower and upper

explosion

limit/flammability

limit:

Flash point: 197°C

Auto-ignition

no data available

no data available

temperature:

Decomposition 825°C

temperature:

pH: pH = 8 to 9

Kinematic no data available

viscosity:

Solubility: 0.001 % (NIOSH, 2016)

Partition no data available

coefficient noctanol/water:

Vapour pressure: 0 mm Hg (approx) (NIOSH, 2016)

Density and/or relative density:

2.93 g/cm3. Temperature:20 °C.;2.71 g/cm3. Temperature:20 °C.

Relative vapour

no data available

density:

Particle no data available

characteristics:

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

#### Reactivity

Decomposes above  $825^{\circ}\text{C}$ . This produces corrosive fumes of calcium oxide. Reacts with acids, aluminium, ammonium salts, fluorine and magnesium.

#### Chemical stability

Indefinite shelflife.

#### Possibility of hazardous reactions

Not combustible. CALCIUM CARBONATE is non-combustible. Decomposes at high temperature (825°C) to give gaseous carbon dioxide and calcium oxide (quicklime). Incompatible with acids, alum, ammonium salts, fluorine, magnesium. Reacts with acids and acidic salts to generate gaseous carbon dioxide with effervescence (bubbling). The reaction with concentrated solutions of acids is rapid and exothermic. The effervesence can create extensive foaming. Ignites on contact with fluorine.

#### Conditions to avoid

no data available

#### Incompatible materials

Calcium carbonate ... ignite and burn fiercely in contact with fluorine. Fluorine: metal salts

### Hazardous decomposition products

When heated to decomposition it emits acrid smoke and irritating vapors.

# **SECTION 11: Toxicological information**

#### Acute toxicity

Oral: LD50 Mouse oral 6450 mg/kg bw

Inhalation: LC50 - rat (male/female) - > 3 mg/L air (analytical).

Dermal: LD50 - rat (male/female) - > 2 000 mg/kg bw.

#### Skin corrosion/irritation

no data available

### Serious eye damage/irritation

no data available

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

# Carcinogenicity

no data available

### Reproductive toxicity

no data available

### STOT-single exposure

May cause mechanical irritation to the respiratory tract and eyes.

### STOT-repeated exposure

Health effects of the substance have been investigated but none have been found

### Aspiration hazard

A nuisance-causing concentration of airborne particles can be reached quickly when dispersed, especially if powdered.

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

#### **Toxicity**

Toxicity to fish: LC50 - Oncorhynchus mykiss (previous name: Salmo gairdneri) - > 100 % v/v saturated solution - 96 h.

Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna - > 100 % v/v saturated solution - 48 h.

Toxicity to algae: EC50 - Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) - > 14 mg/L - 72 h.

Toxicity to microorganisms: EC50 - activated sludge of a predominantly domestic sewage - > 1 000 mg/L - 3 h. Remarks: Respiration rate.

### Persistence and degradability

no data available

#### Bioaccumulative potential

no data available

# Mobility in soil

no data available

#### Other adverse effects

no data available

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

### Disposal methods

#### Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

#### Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

# **SECTION 14: Transport information**

#### **UN Number**

ADR/RID: Not dangerous goods. (For reference only, please check.) IMDG: Not dangerous goods. (For reference only, please check.) IATA: Not dangerous goods. (For reference only, please check.)

#### **UN Proper Shipping Name**

ADR/RID: Not dangerous goods. (For reference only, please check.) IMDG: Not dangerous goods. (For reference only, please check.) IATA: Not dangerous goods. (For reference only, please check.)

### Transport hazard class(es)

ADR/RID: Not dangerous goods. (For reference only, please check.) IMDG: Not dangerous goods. (For reference only, please check.) IATA: Not dangerous goods. (For reference only, please check.)

# Packing group, if applicable

ADR/RID: Not dangerous goods. (For reference only, please check.) IMDG: Not dangerous goods. (For reference only, please check.) IATA: Not dangerous goods. (For reference only, please check.)

#### Environmental hazards

ADR/RID: No

IMDG: No IATA: No

### Special precautions for user

no data available

### Transport in bulk according to IMO instruments

no data available

# **SECTION 15: Regulatory information**

Safety, health and environmental regulations specific for the product in question

European Inventory of Existing Commercial Chemical Substances (EINECS)

Listed.

**EC Inventory** 

Listed.

United States Toxic Substances Control Act (TSCA) Inventory

Listed.

China Catalog of Hazardous chemicals 2015

Not Listed.

New Zealand Inventory of Chemicals (NZIoC)

Listed.

(PICCS)

Listed.

Vietnam National Chemical Inventory

Listed.

IECSC)

Listed.

#### Korea Existing Chemicals List (KECL)

Listed.

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

#### Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

#### References

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:

http://www.echemportal.org/echemportal/index?pageID=0&request\_locale=en

CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website:

http://www.phmsa.dot.gov/hazmat/library/erg

Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

ECHA - European Chemicals Agency, website: https://echa.europa.eu/

### Other Information

Calcium carbonate exists in nature as mineral aragonite and calcite (as in limestone, chalk and marble).

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the product. We as supplier shall not be held liable for any