

Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013

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

**Perihalan Produk:** LITIMUM KARBONAT  
**Product Description:** Lithium carbonate  
**Cat No. :** 413260000; 413260050; 413265000  
**Synonyms** Carbonic Acid Dilithium Salt; carbonic acid lithium salt  
**CAS No** 554-13-2  
**Molecular Formula** C Li2 O3

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

**Recommended Use** Laboratory chemicals.  
**Uses advised against** No Information available

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**SECTION 2: HAZARDS IDENTIFICATION**
**Classification of the substance or mixture**

Acute oral toxicity	Category 4 (H302)
Serious Eye Damage/Eye Irritation	Category 2 (H319)

**Label Elements**

**Signal Word**
**Warning**
**Hazard Statements**

H302 - Harmful if swallowed  
 H319 - Causes serious eye irritation

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## Precautionary Statements

### Prevention

P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
P264 - Wash face, hands and any exposed skin thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P271 - Use only outdoors or in a well-ventilated area  
P280 - Wear eye protection/ face protection

### Response

P312 - Call a POISON CENTER or doctor if you feel unwell  
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P330 - Rinse mouth

### Storage

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

### Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

## Other Hazards

Toxic to terrestrial vertebrates

This product does not contain any known or suspected endocrine disruptors

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight %
Lithium carbonate	554-13-2	<=100

## SECTION 4: FIRST AID MEASURES

### Description of first aid measures

#### General Advice

If symptoms persist, call a physician.

#### Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

#### Skin Contact

Get medical attention. Wash off immediately with plenty of water for at least 15 minutes.

#### Ingestion

Do NOT induce vomiting. Get medical attention.

#### Inhalation

Remove to fresh air. Get medical attention. If not breathing, give artificial respiration.

#### Self-Protection of the First Aider

Use personal protective equipment as required.

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

None reasonably foreseeable.

### Indication of any immediate medical attention and special treatment needed

#### Notes to Physician

Treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

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## Extinguishing media

### **Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### **Extinguishing media which must not be used for safety reasons**

No information available.

## Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors.

## **Hazardous Combustion Products**

None under normal use conditions.

## Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### Personal Precautions, Protective Equipment and Emergency Procedures

Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation.

### Environmental precautions

Should not be released into the environment. See Section 12 for additional Ecological Information.

### Methods and Material for Containment and Cleaning Up

Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.

### Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

## **SECTION 7: HANDLING AND STORAGE**

### Precautions for Safe Handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

### Conditions for Safe Storage, Including any Incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place.

### Specific End Uses

Use in laboratories.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### Control Parameters

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Component	European Union	The United Kingdom	Germany
Lithium carbonate			TWA: 0.2 mg/m <sup>3</sup> (8 Stunden). MAK inorganic compounds, except Lithium and strong irritant Lithium compounds such as Lithium amide, Lithium hydride, Lithium hydroxide, Lithium nitride, Lithium oxide, Lithium tetrahydro aluminate, Lithium tetrahydroborate

## Exposure Controls

### Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

### Personal protective equipment

#### **Eye Protection**

Goggles

#### **Hand Protection**

Protective gloves

#### **Skin and body protection**

Long sleeved clothing

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.

(Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g.

sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

#### **Respiratory Protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

#### **Recommended Filter type:**

Particulates filter conforming to EN 143

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

When RPE is used a face piece Fit Test should be conducted

### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

### Environmental exposure controls

No information available

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

#### **Appearance**

White

#### **Physical State**

Powder Solid

#### **Odor**

Odorless

#### **Odor Threshold**

No data available

#### **pH**

10-11

5 g/l aq.sol. (20°C)

#### **Melting Point/Range**

720 °C / 1328 °F

#### **Softening Point**

No data available

#### **Boiling Point/Range**

No information available

#### **Flash Point**

No information available

**Method -** No information available

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Evaporation Rate	Not applicable	Solid
Flammability (solid,gas)	No information available	
Explosion Limits	No data available	

Vapor Pressure	1 hPa @ 610 °C	Solid
Vapor Density	Not applicable	
Specific Gravity / Density	No data available	
Bulk Density	No data available	
Water Solubility	13 g/L (20°C)	
Solubility in other solvents	No information available	

## Partition Coefficient (n-octanol/water)

Autoignition Temperature	Not applicable	Solid
Decomposition Temperature	1200 °C	
Viscosity	Not applicable	
Explosive Properties	No information available	
Oxidizing Properties	No information available	

Molecular Formula	C Li2 O3
Molecular Weight	73.88

## SECTION 10: STABILITY AND REACTIVITY

### Reactivity

None known, based on information available.

### Chemical Stability

Stable under normal conditions.

### Possibility of Hazardous Reactions

Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

### Conditions to Avoid

Incompatible products. Excess heat. Avoid dust formation.

### Incompatible Materials

Strong oxidizing agents. Strong acids. Fluorine. Metals.

### Hazardous Decomposition Products

None under normal use conditions.

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## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

#### Product Information

(a) acute toxicity;

Oral

Category 4

Dermal

Based on available data, the classification criteria are not met

Inhalation

Based on available data, the classification criteria are not met

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Lithium carbonate	LD50 = 525 mg/kg ( Rat )	LD50 > 3000 mg/kg ( Rabbit )	>2.17 mg/L ( Rat ) 4 h

(b) skin corrosion/irritation;

Based on available data, the classification criteria are not met

(c) serious eye damage/irritation;

Category 2

(d) respiratory or skin sensitization;

Respiratory

Based on available data, the classification criteria are not met

Skin

Based on available data, the classification criteria are not met

(e) germ cell mutagenicity;

Based on available data, the classification criteria are not met

(f) carcinogenicity;

Based on available data, the classification criteria are not met

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity;

Reproductive Effects

Based on available data, the classification criteria are not met

May cause birth defects. May impair fertility.

(h) STOT-single exposure;

Based on available data, the classification criteria are not met

(i) STOT-repeated exposure;

Based on available data, the classification criteria are not met

Target Organs

None known.

(j) aspiration hazard;

Not applicable

Solid

Other Adverse Effects

The toxicological properties have not been fully investigated.

Symptoms / effects, both acute and delayed

No information available.

Endocrine Disrupting Properties

Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

## SECTION 12: ECOLOGICAL INFORMATION

### Ecotoxicity effects

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Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Lithium carbonate	LC50: = 30.3 mg/L, 96h static (Oncorhynchus mykiss)			

## Persistence and degradability

### **Persistence Degradability**

Soluble in water, Persistence is unlikely, based on information available.  
Not relevant for inorganic substances.

## Bioaccumulative potential

Bioaccumulation is unlikely

## Mobility in soil

The product is water soluble, and may spread in water systems. Will likely be mobile in the environment due to its water solubility. Highly mobile in soils.

## Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

## Other adverse effects

No information available

## SECTION 13: DISPOSAL CONSIDERATIONS

### Waste treatment methods

#### **Waste from Residues/Unused Products**

Waste is classified as hazardous Dispose of in accordance with the European Directives on waste and hazardous waste Dispose of in accordance with local regulations

#### **Contaminated Packaging**

Dispose of this container to hazardous or special waste collection point.

#### **Other Information**

Waste codes should be assigned by the user based on the application for which the product was used Do not empty into drains

## SECTION 14: TRANSPORT INFORMATION

### IMDG/IMO

Not regulated

### Road and Rail Transport

Not regulated

### IATA

Not regulated

### **Special Precautions for User**

No special precautions required

## SECTION 15: REGULATORY INFORMATION

### Safety, health and environmental regulations/legislation specific for the substance or mixture

#### **International Inventories**

X = listed

Component	EINECS	TSCA	DSL	PICCS	ENCS	ISHL	IECSC	AICS	KECL
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Lithium carbonate	209-062-5	X	X	X	X	X	X	X	KE-22550
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## National Regulations

**Persistent Organic Pollutant**  
**Ozone Depletion Potential**

This product does not contain any known or suspected substance  
This product does not contain any known or suspected substance

## SECTION 16: OTHER INFORMATION

### Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**POW** - Partition coefficient Octanol:Water

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (Volatile Organic Compound)

### **Key literature references and sources for data**

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**Revision Date**

22-Mar-2025

**Revision Summary**

Not applicable.

**In accordance with local and national regulations: Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013**

### **Disclaimer**

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

**End of Safety Data Sheet**