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

# SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THECOMPANY/UNDERTAKING

Product Identifier

Perihalan Produk: <u>Lithium carbonate</u>
Product Description: <u>Lithium carbonate</u>

Cat No.: 13418

Synonyms carbonic acid lithium salt; Carbonic Acid Dilithium Salt

CAS No 554-13-2 Molecular Formula Li2CO3

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** 

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H302 - Harmful if swallowed

H319 - Causes serious eye irritation

#### **Precautionary Statements**

#### Prevention

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P280 - Wear eye protection/ face protection

P280 - Wear protective gloves

#### Response

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

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

P337 + P313 - If eye irritation persists: Get medical advice/attention

#### Storage

P403 - Store in a well-ventilated place

#### 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** Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists,

call a physician.

**Ingestion** Clean mouth with water and drink afterwards plenty of water. Get medical attention if

symptoms occur.

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

symptoms occur.

Self-Protection of the First Aider Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination.

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

None reasonably foreseeable.

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

Notes to Physician Treat symptomatically.

### **SECTION 5: FIREFIGHTING MEASURES**

#### 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**

Carbon oxides, Lithium oxide.

#### 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

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

#### Environmental precautions

Should not be released into the environment. Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.

#### 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

Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Ensure adequate ventilation. 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.

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### **Control Parameters**

Component	European Union	The United Kingdom	Germany	
Lithium carbonate			TWA: 0.2 mg/m <sup>3</sup> (8 Stunden). MA	
			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 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

Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls Prevent product from entering drains

### **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties

Appearance White
Physical State Solid
Odor Odorless

Odor Threshold

PH

No data available

Not applicable

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Solid

Solid

Solid

**Melting Point/Range** 618 °C / 1144.4 °F **Softening Point** No data available Boiling Point/Range 1310 °C / 2390 °F

Flash Point Not applicable Method - No information available

**Evaporation Rate** Not applicable Flammability (solid,gas) No information available

**Explosion Limits** No data available

**Vapor Pressure** negligible Not applicable **Vapor Density** 2.1 (H2O=1)

Specific Gravity / Density No data available **Bulk Density** 

**Water Solubility** Insoluble

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

No data available **Autoignition Temperature Decomposition Temperature** No data available

Not applicable **Viscosity** 

**Explosive Properties** No information available **Oxidizing Properties** No information available

**Molecular Formula** Li2CO3 **Molecular Weight** 73.8802

### **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. Avoid dust formation.

Incompatible Materials

Strong oxidizing agents.

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**Hazardous Decomposition Products** 

Carbon oxides. Lithium oxide.

### **SECTION 11: TOXICOLOGICAL INFORMATION**

#### Information on Toxicological Effects

#### **Product Information**

(a) acute toxicity;

Oral Category 4

DermalBased on available data, the classification criteria are not metInhalationBased 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; Based on available data, the classification criteria are not met

(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

Symptoms / effects,both acute and No information available.

delayed

**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**

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**Ecotoxicity effects**Contains a substance which is:. Harmful to aquatic organisms. Do not allow material to

contaminate ground water system.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Lithium carbonate				

Persistence and degradability

Persistence Hydrolyses.

**Degradability** Not relevant for inorganic substances.

Degradation in sewage treatment plant

Contains substances known to be hazardous to the environment or not degradable in waste

water treatment plants.

Bioaccumulative potential Product does not bioaccumulate due to reaction with water

<u>Mobility in soil</u> Spillage unlikely to penetrate soil. Is predicted to have low mobility in the environment. Is

not likely mobile in the environment due its low water solubility and propensity to bind to soil

particles.

**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 Do not flush to sewer

#### **SECTION 14: TRANSPORT INFORMATION**

IMDG/IMO Not regulated

Road and Rail Transport Not regulated

<u>IATA</u> Not regulated

Special Precautions for User No special precautions required

### **SECTION 15: REGULATORY INFORMATION**

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

China X = listed Australia U.S.A. (TSCA) Canada (DSL/NDSL) Europe International Inventories

> (EINECS/ELINCS/NLP) Australia (AICS) Korea (KECL) China (IECSC) Japan (ENCS) Philippines (PICCS) Taiwan (TCSI) Japan (ISHL) New Zealand (NZIoC) Japan (ISHL)

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

#### **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

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

EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic

Substances List

Substances/EU List of Notified Chemical Substances PICCS - Philippines Inventory of Chemicals and Chemical Substances

**ENCS** - Japanese Existing and New Chemical Substances AICS - Australian Inventory of Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances **KECL** - Korean Existing and Evaluated Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

TWA - Time Weighted Average

**ACGIH** - American Conference of Governmental Industrial Hygienists RPE - Respiratory Protective Equipment

IARC - International Agency for Research on Cancer

LC50 - Lethal Concentration 50%

LD50 - Lethal Dose 50%

POW - Partition coefficient Octanol:Water

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

Health, Safety and Environmental Department **Prepared By** 

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**Revision Summary** SDS sections updated, 12.

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

#### Disclaimer

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**End of Safety Data Sheet**