051-GHS

# LITHIUM CARBONATE

Preparation Date: 13-Apr-2016 Revision Date: 13-Apr-2018 Revision Number 2.01

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product Identifier** 

Product Name LITHIUM CARBONATE

Other means of identification

**Synonyms** 

401260 Lithium Carbonate BG <40 micron

401223 Lithium Carbonate, "fines"

Chemical Family Inorganic Salt CAS-No 554-13-2 Formula Li2CO3

Recommended use of the chemical and restrictions on use

General function Raw material for chemical industry, pharmaceutical and the glass industry.

Uses advised against No information available

Details of the supplier of the safety data sheet

**Company** Albemarle Corporation

451 Florida Street Baton Rouge, LA 70801

Albemarle U.S., Inc. 348 Holiday Inn Drive Kings Mountain, NC 28086

**For Non-Emergency** 704-739-2501 (8AM-5PM M-Th; 8AM-12PM Fri)

**'Competent Body for SDS'**Department of product safety

productsafety@albemarle.com

Emergency telephone number

Emergency Telephone Numbers In case of emergency, call Albemarle emergency response at +1 225 344 7147

## 2. HAZARDS IDENTIFICATION

## Classification

Acute Toxicity - Oral	Category 4
Serious eye damage/eye irritation	Category 2
Chronic aquatic toxicity	Category 3

#### Label elements

## **Emergency Overview**

# Warning

## Hazard Statements Harmful if swallowed

Causes serious eye irritation

Revision Date: 13-Apr-2018 RLI00138 - LITHIUM CARBONATE

Harmful to aquatic life with long lasting effects



Physical state Crystalline powder.

Color White.

Odor Odorless

#### Prevention

Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Wear eye/face protection Avoid release to the environment

## 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

IF ON SKIN: Wash with plenty of soap and water

IF INHALED: Move to fresh air.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Rinse mouth

#### Disposal

Dispose of contents/container to an approved waste disposal plant

## Hazards not otherwise classified (HNOC)

Not applicable

### Other Information

No data available

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Synonyms** 

401260 Lithium Carbonate BG <40 micron

401223 Lithium Carbonate, "fines"

Pure substance/mixture Substance

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

Note: The exact concentrations of the above listed chemicals are being withheld as a trade secret.

# 4. FIRST AID MEASURES

First aid measures

**General Advice** Take off contaminated clothing and shoes immediately. First aid responders should pay

attention to self-protection and use the recommended protective clothing. Move out of

dangerous area. Keep warm and in a quiet place.

Eve contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call

a physician immediately.

Skin contact Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

Inhalation IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If

breathing has stopped, apply artificial respiration. If symptoms persist, call a physician.

**Ingestion** Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting. Never

give anything by mouth to an unconscious person. Call a physician immediately.

**Protection of First-aiders**Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms Discomfort. Irritating to eyes. Harmful if swallowed. Symptoms of overexposure include

nausea, vomiting, rashes, dizziness, drowsiness, central nervous system effects.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media Water spray jet, Dry powder, Carbon dioxide (CO2), Foam.

Unsuitable Extinguishing Media High volume water jet.

Specific Hazards Arising from the Chemical

Combustion/explosion hazards High temperatures may liberate toxic or corrosive gases.

**Hazardous Combustion** 

**Products** 

Carbon monoxide, Carbon dioxide (CO2).

**Explosion Data** 

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

**Protective Equipment and Precautions for Firefighters** 

Wear self-contained breathing apparatus and protective suit. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

**Personal precautions** Ensure adequate ventilation. Wear suitable protective equipment. Avoid contact with skin,

eyes and clothing. Do not breathe dust. Keep people away from and upwind of spill/leak.

Handle in accordance with good industrial hygiene and safety practice

**For emergency responders** Use personal protective equipment as required.

**Environmental Precautions** 

**Environmental precautions** Do not flush into surface water or sanitary sewer system. Avoid release to the environment

Methods and material for containment and cleaning up

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

Methods for Cleaning up Take up mechanically and collect in suitable container for disposal. Avoid dust formation.

#### 7. HANDLING AND STORAGE

Precautions for safe handling

Handling Mechanical ventilation is recommended. Wear personal protective equipment. Avoid dust

formation. Handle in accordance with good industrial hygiene and safety practice.

RLI00138 - LITHIUM CARBONATE Revision Date: 13-Apr-2018

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Conditions for safe storage, including any incompatibilities

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

moisture.

**Incompatible Materials** Avoid strong acids and oxidizers. Fluorine.

**Dust Explosion Properties** Avoid dust formation.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## Control parameters

**Exposure Guidelines**This product does not contain any hazardous materials with occupational exposure limits

established by the region specific regulatory bodies.

Component	CAS-No	ACGIH TLV (TWA)	OSHA PEL (TWA)	NIOSH IDLH
Lithium carbonate	554-13-2	-	-	-

Component	CAS-No	Alberta	British Columbia	Ontario	Quebec
Lithium carbonate	554-13-2	-	-	-	-

#### Appropriate engineering controls

**Engineering Controls** Showers.

Eyewash stations. Ventilation systems.

## Individual protection measures, such as personal protective equipment

**Eye/face Protection** Tightly fitting safety goggles.

Skin Protection If repeated or prolonged skin contact or contamination of clothing is likely, protective

clothing should be worn. Rubber gloves resistant to chemical permeation

**Hand protection** Gloves resistant to chemical permeation.

**Respiratory protection** Whenever workplace conditions warrant, wear properly fitted, approved respirator with

high-efficiency (dust/fume/mist) filter cartridges.

General Hygiene Considerations When using, do not eat, drink or smoke. Wash hands before breaks and at the end of

workday. Avoid contact with skin, eyes and clothing. Wear suitable gloves and eye/face protection. Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Physical state Crystalline powder.

ColorWhite.OdorOdorless.Odor ThresholdNone

Molecular Weight 73.89 g/mol

pH 9 - 11 at 1 g/l (as aqueous solution)

Melting point/freezing point 722 °C / 1332 - °F Method: OEĆD Test Guideline 102

Boiling Point/Range ca 1,310 °C / 2390 - °F

Flash Point

Evaporation Rate
Flammability (solid, gas)

Not applicable
No data available.
No data available

Flammability Limit in Air

Upper flammability limit:

Lower flammability limit:

Vapor Pressure

Vapor Density

No data available
1 hPa (610 °C)
No data available

RLI00138 - LITHIUM CARBONATE Revision Date: 13-Apr-2018

**Density** 2.11 g/cm3 (20°C), ca. 750 kg/m³ (Bulk Density)

Solubility(ies)

Water Solubility 8.4 g/l (20 °C) Method: OECD Test Guideline 102

Solubility in other solvents
Partition coefficient
Autoignition temperature
Decomposition temperature

No data available No data available No data available >600 °C

Viscosity, kinematic No data available

Dynamic viscosity No data available

**Explosive Properties**No data available **Oxidizing Properties**No data available

# 10. STABILITY AND REACTIVITY

Reactivity Hazard No data available.

Stability Stable.

Hazardous Reactions May react with strong acids generating heat with boiling and spattering.

Conditions to Avoid Avoid moisture. Excess heat.

Materials to avoid Fluorine, Avoid strong acids and oxidizing agents.

Hazardous decomposition products Thermal decomposition of this product can produce lithium and carbon oxides.

## 11. TOXICOLOGICAL INFORMATION

## Information on likely routes of exposure

InhalationNo.Eye contactYes.Skin contactNo.

**Ingestion** Yes. Harmful if swallowed.

Potential Health Effects

**Acute Effects** 

Skin Corrosion/irritation Not irritating. (. OECD Test No. 404: Acute Dermal Irritation/Corrosion.).

Serious eye damage/eye irritation Irritating to eyes. (. OECD Test No. 405: Acute Eye Irritation/Corrosion.).

Respiratory irritation No data available

Sensitization Buehler Test: Not a skin sensitizer. (guinea pig). (. OECD Test No. 406: Skin Sensitization.

).

**STOT - single exposure** No information available.

Chronic Effects

Mutagenic Effects OECD Test No. 476: In vitro Mammalian Cell Gene Mutation Test: negative. (with or without

metabolic activation).

OECD Test No. 473: In vitro Mammalian Chromosome Aberration Test: negative. (with or

without metabolic activation). Not mutagenic in AMES Test.

**Carcinogenicity** There are no known carcinogenic chemicals in this product.

Component CAS-No ACGIH IARC NTP OSHA

RLI00138 - LITHIUM CARBONATE Revision Date: 13-Apr-2018

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		Carcinogens			Carcinogens
Lithium carbonate	554-13-2	•	•	-	

Reproductive Effects Two-generation reproductive toxicity: (rat). oral: Maternal toxicity: NOAEL (No observed

adverse effect level). 15 mg/kg bw/day. Developmental Toxicity:. NOAEL (No observed

adverse effect level). 45 mg/kg bw/day. (. OECD Test No. 416: Two-Generation

Reproduction Toxicity. ).

**STOT - repeated exposure**No information available.

Chronic Effects No information available

**Aspiration hazard** No information available.

Numerical measures of toxicity

**Product Information** 

The following values are calculated based on chapter 3.1 of the GHS document .

 LD50 Oral:
 Rat Oral LD50: 525 mg/kg (Lit).

 LD50 Dermal:
 Rat Dermal LD50: > 3000 mg/kg

 Inhalation LC50:
 LC50/inhalation/4h/rat: > 2.17 mg/L

**Component Information** 

Component	Rat Oral LD50:	Rabbit Dermal LD50:	Rat Dermal LD50 :	Rat Inhalation LC50:
Lithium carbonate	525 mg/kg	-	>3000 mg/kg	> 2.17 mg/L (4 h)
554-13-2				

# 12. ECOLOGICAL INFORMATION

#### **Ecotoxicity**

Harmful to aquatic life with long lasting effects

Component	Freshwater Algae	Freshwater Fish LC50/96h	Water Flea EC50/48h:
	EC50/72h :	:	
Lithium carbonate (CAS #: 554-13-2)	>400 mg/l	30.3 mg/l	33 mg/l

Persistence/Degradability Not applicable: inorganic.

**Bioaccumulation/ Accumulation**Not likely to bioaccumulate.

Mobility in Environmental Media No information available.

Other adverse effects Slightly water endangering. Avoid subsoil penetration.

## 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Method Disposal should be in accordance with applicable regional, national and local laws and

regulations.

**Contaminated Packaging** Do not reuse container.

Revision Date: 13-Apr-2018 RLI00138 - LITHIUM CARBONATE

## 14. TRANSPORT INFORMATION

DOT

**Proper Shipping Name** NOT REGULATED FOR TRANSPORTATION

**Hazard Class** Not regulated UN No. Not regulated **Packing Group** Not regulated Description Not regulated

TDG Not regulated

IMDG/IMO

**IMO Class** Not regulated **Packing Group** Not regulated **UN-No** Not regulated Not regulated IMO Labelling and Marking **Proper Shipping Name** Not regulated **Transport Description** Not regulated

IATA/ICAO

IATA/ICAO Class Not regulated **Packing Group** Not regulated **UN-No** Not regulated IATA/ICAO Labelling/Marking Not regulated Proper shipping name Not regulated **Transport Description** Not regulated

15. REGULATORY INFORMATION											
International Inventories TSCA DSL NDSL AICS EINECS ENCS KECL PICCS IECSC NZIoC TCSI											
LITHIUM CARBONATE	Х	Χ	-	Х	Х	Χ	Х	Х	Х	Х	Χ

<sup>(</sup>X) Complies (-) Does not Comply

### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Component	Weight %	SARA 313 - De minimis
Lithium carbonate (CAS #: 554-13-2)	<=100	1.0

SARA 311/312 Hazardous Categorization

**Acute Health Hazard** Yes **Chronic Health Hazard** No Fire Hazard No **Sudden Release of Pressure Hazard** Nο Reactive Hazard Nο

# Reportable and Threshold Planning Quantities

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

### State Right-to-Know

This product contains the following chemicals regulated in the states listed below.

Component	California Prop. 65	New Jersey	Massachusetts	Pennsylvania
Lithium carbonate (CAS #: 554-13-2)	Developmental	X	X	•

## **WHMIS Hazards**

D2B Toxic materials

Revision Date: 13-Apr-2018 RLI00138 - LITHIUM CARBONATE

# **16. OTHER INFORMATION**

NFPA	Health 2	Flammability 0	Instability 0	Physical Hazards 0
HMIS	Health 2	Flammability	0 P	hysical Hazards 0

Health & Environment DepartmentAlbemarle Corporation **Prepared By** 

FOR ADDITIONAL NONEMERGENCY PRODUCT INFORMATION, CONTACT:

HEALTH AND ENVIRONMENT DEPARTMENT

ALBEMARLE CORPORATION

451 FLORIDA ST.

BATON ROUGE, LA. 70801

(800) 535-3030

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Disclaimer:

The information contained herein is accurate to the best of our knowledge. The Company makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances.

**End of Safety Data Sheet**