

# Safety Data Sheet



## 1: Identification

### 1.1: Product Identifier

Product Name: 6Li<sub>2</sub>CO<sub>3</sub>  
Product Number(s): 1LI2CO3-0002F  
CAS Number: 25890-20-4  
SDS Document Number: 001816

### 1.2: Recommended Uses and Restrictions

#### Recommended Uses

Manufacture of substances

#### Restrictions

Not for food or drug use.

### 1.3: Supplier Contact Information

APL Engineered Materials, Inc.  
2401 N. Willow Rd.  
Urbana, IL 61802  
Phone: 217-367-1340  
Fax: 217-367-9084

### 1.4: Emergency Phone Number

International: +01-813-248-0585  
United States: 800-255-3924

## 2: Hazards Identification

### 2.1: Classifications

Acute Toxicity, Oral - Category 4  
Eye Damage/Irritation - Category 2A

### 2.2: GHS Label Elements

#### Pictograms



Signal Word: Warning

#### Hazard Statements

H302: Harmful if swallowed.  
H319: Causes serious eye irritation.

#### Precautionary Statements

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.  
P280: Wear protective gloves, clothing, and eyewear.  
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
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.  
P501: Dispose of contents/container to licensed disposal facility.

#### 2.3: Hazards Not Otherwise Classified or Not Covered by GHS

None.

#### 2.4: Amount(s) of substances with unknown toxicity

None

### 3: Composition/Information on Ingredients

| 3.1: .Ingredient | .Weight% | .Formula | .CAS Number | .Mol Wt | .EC Number |
|------------------|----------|----------|-------------|---------|------------|
| 6Li2CO3          | 100      | 6Li2CO3  | 25890-20-4  | 72.04   |            |

#### 3.2: Other Hazardous components

none

#### 3.3: Trade Secret Disclaimer

none

#### 3.4: Synonyms

none

### 4: First Aid Measures

#### 4.1: First Aid

##### General

Consult with physician and provide this Safety Data Sheet

Remove person from area of exposure and remove any contaminated clothing

##### In contact with eyes

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids.

Seek medical attention if irritation develops or persists

##### In contact with skin

Wash thoroughly with soap and plenty of water. Remove all contaminated clothing for proper laundering. Seek medical attention if irritation develops or persists.

##### If swallowed

If conscious and alert, rinse mouth and drink 2-4 cupfuls of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get medical aid.

##### If inhaled

Remove from exposure to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

#### 4.2: Most important symptoms and effects; acute and delayed

Causes serious eye irritation.

Harmful if swallowed.

**4.3: Indication of any immediate medical attention and special treatment needed**

If swallowed: Immediately call a POISON CENTER or doctor/ physician.

## **5: Fire Fighting Measures**

**5.1: Fire extinguishing media**

dry chemical  
carbon dioxide

**5.2: Specific hazards arising from the substance or mixture**

lithium oxide

**5.3: Special protective equipment and precautions for firefighters.**

Wear self contained breathing apparatus for fire fighting if necessary

## **6: Accidental Release Measures**

**6.1: Personal precautions, protective equipment, and emergency procedures.**

Avoid breathing dust.  
For personal protection see section 8.  
Evacuate personnel to safe areas.  
Ensure adequate ventilation.  
Avoid dust formation.  
Use personal protective equipment.

**6.2: Methods and materials for containment and cleaning up.**

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

**6.3: Environmental precautions**

Do not let product enter drains.

**6.4: Disposal**

See section 13.  
Dispose of in accordance with local regulations.

## **7: Handling and Storage**

**7.1: Precautions for safe handling**

See precautionary statements in section 2.2.  
Avoid formation of dust and aerosols.  
Avoid contact with skin and eyes.  
Provide appropriate exhaust ventilation at places where dust is formed.

**7.2: Conditions for safe storage**

Store in a dry and well-ventilated place.  
Store under inert gas.  
Keep container tightly closed.

Store away from moisture.

### 7.3: Incompatibilities

acids  
oxidizing agents

## 8: Exposure Controls/Personal Protection

### 8.1: Control parameters

OSHA permissible exposure limit (PEL)

none listed

ACGIH threshold limit value (TLV)

none listed

NIOSH recommended exposure limit (REL)

none listed

### 8.2: Engineering controls

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower

Use adequate ventilation to keep airborne concentrations low

### 8.3: Personal protective equipment

Eyes

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166

Skin

Wear appropriate, chemical-resistant protective gloves to prevent skin exposure.

Clothing

Wear appropriate protective clothing to prevent skin exposure

Respirator

Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149.

Always use a NIOSH or European Standard EN 149 approved respirator when necessary

## 9: Physical and Chemical Properties

### 9.a: Appearance

State: Solid

Form: Powder

Color: White

9.b: Odor: no data available

9.c: Odor threshold: no data available

9.d: pH: no data available

9.e: Melting point / freezing point: no data available

9.f: Initial boiling point and range: no data available

9.g: Flashpoint: no data available

9.h: Evaporation rate: no data available

9.i: Flammability (solid, gas): no data available

- 9.j: Upper/lower flammability or explosive limits: no data available
- 9.k: Vapor pressure: no data available
- 9.l: Vapor density: no data available
- 9.m: Relative density: no data available
- 9.n: Water Solubility: no data available
- 9.o: Partition coefficient: n-octanol/water: no data available
- 9.p: Auto-ignition temperature: no data available
- 9.q: Decomposition temperature: no data available
- 9.r: Viscosity: no data available

## 10: Stability and Reactivity

### 10.1: Reactivity

no data available

### 10.2: Chemical stability

no data available

### 10.3: Possibility of hazardous reactions

no data available

### 10.4: Conditions to avoid

In the event of fire: see section 5  
exposure to water

### 10.5: Incompatible materials

See section 7.3.

### 10.6: Hazardous decomposition products

In the event of fire: see section 5.2  
Other decomposition products - no data available

## 11: Toxicological Information

### 11.1: Toxicity data

Acute toxicity - Oral

Li<sub>2</sub>CO<sub>3</sub>: LD<sub>50</sub> Oral - rat - 525 mg/kg.

Acute toxicity - Dermal

Li<sub>2</sub>CO<sub>3</sub>: LD<sub>50</sub> Dermal - rat - male and female - >2,000 mg/kg.

Acute toxicity - Inhalation

Li<sub>2</sub>CO<sub>3</sub>: LC<sub>50</sub> Inhalation - rat - 4 h - >2.17 mg/l.

Skin corrosion/irritation

no data available

Eye damage/irritation

Li<sub>2</sub>CO<sub>3</sub>: Causes eye irritation

Respiratory irritation

no data available

Germ cell mutagenicity

no data available

Reproductive toxicity

no data available

Specific organ toxicity - single exposure

no data available

Specific organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional information

Li<sub>2</sub>CO<sub>3</sub>: RTECS: OJ5800000

ACGIH carcinogenicity

The ACGIH has not identified any component of this product present at levels greater than or equal to 0.1% as a probable, possible or confirmed human carcinogen.

IARC carcinogenicity

The IARC has not identified any component of this product present at levels greater than or equal to 0.1% as a probable, possible or confirmed human carcinogen.

NTP carcinogenicity

The NTP has not identified any component of this product present at levels greater than or equal to 0.1% as a probable, possible or confirmed human carcinogen.

OSHA carcinogenicity

OSHA has not identified any component of this product present at levels greater than or equal to 0.1% as a probable, possible or confirmed human carcinogen.

11.2: Routes of exposure

skin

oral

eyes

11.3: Symptoms of exposure

See section 4.2

11.4: Delayed and immediate effects of exposure

Lithium and its compounds are possible teratogens by analogy to lithium carbonate which has equivocal human teratogenic data and positive animal teratogenic data.

To the best of our knowledge the toxicological properties have not been thoroughly investigated.

Large doses of lithium ion have caused dizziness and prostration, and can cause kidney damage if sodium intake is limited. Dehydration, weight loss, dermatological effects, and thyroid disturbances have been reported. Central nervous system effects that include slurred speech, blurred vision, sensory loss, ataxia, and convulsions may occur. Diarrhea, vomiting, and neuromuscular effects such as tremor, clonus, and hyperactive reflexes may occur as a result of repeated exposure to lithium ion.,

## 12: Ecological Information

12.1: Ecotoxicity

Toxicity to fish

Li<sub>2</sub>CO<sub>3</sub>: LC50 - *Oncorhynchus mykiss* (rainbow trout) - 30.3 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

Li2CO3: EC50 - Daphnia magna (Water flea) - 33.2 mg/l - 48 h

Toxicity to algae/bacteria

Li2CO3: static test EC50 - Desmodesmus subspicatus (green algae) - > 400 mg/l - 72 h

#### 12.2: Persistence and degradability

no data available

#### 12.3: Bioaccumulative potential

no data available

#### 12.4: Mobility in soil

no data available

#### 12.5: Other effects

no data available

### 13: Disposal Considerations

#### 13.1: Waste treatment methods

No data available

#### 13.2: Safe handling

See section 7.1 .

#### 13.3: Product disposal

Contact a licensed professional waste disposal service to dispose of this material.

#### 13.4: Packaging disposal

Dispose of as unused product.

### 14: Transport Information

#### 14.1: DOT(US)

UN Number: Not a dangerous good

Proper Shipping Name:

Packing Group:

Shipping Class(es):

Marine Pollutant: No

#### 14.2: IMDG

UN Number: Not a dangerous good

Proper Shipping Name:

Packing Group:

Shipping Class(es):

Marine Pollutant: No

#### 14.3: IATA

UN Number: Not a dangerous good

Proper Shipping Name:

Packing Group:

Shipping Class(es):

#### 14.4: Special Shipping Precautions

None

### 15: Regulatory Information

#### 15.1: TSCA inventory

This material is listed on the TSCA inventory.

#### 15.2: SARA 302 components

This material is not subject to the reporting requirements of SARA Title III, Section 302.

#### 15.3: SARA 313 components

This material is subject to the reporting requirements of SARA Title III, Section 313.

#### 15.4: SARA 313/312 hazards

No SARA hazards.

#### 15.5: Other information

Massachusetts Right To Know Components - This product contains materials listed on the Massachusetts Right to Know list

Pennsylvania Right To Know Components -This product does not contain materials listed on the Pennsylvania Right to Know list

New Jersey Right To Know Components -This product contains materials listed on the New Jersey Right to Know list

California Prop. 65 Components - This product does contain chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### 16: Additional Information

#### 16.1: NFPA

Health: 2

Fire: 0

Reactivity: 1

Special:

#### 16.2: HMIS

Health: 2

Chronic: \*

Flammability: 0

Physical Hazard: 0

#### 16.3: Disclaimers

The information herein is believed to be accurate and reliable as of the date compiled. However, APL Engineered Materials, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information on this data sheet or any use of the product based upon this information.

For industrial use only. Not for drug, household or other uses

#### 16.4: References

Information contained on this SDS sheet was obtained from some or all of the following sources: American Conference of Governmental Industrial Hygienists (ACGIH), TLVs and BEIs; National Institute for Occupational Safety and Health (NIOSH), Pocket Guide to Chemical Hazards; European Chemicals Agency, <http://echa.europa.eu/>; The National Institute of Health, U.S National Library of



Medicine, TOXNET, Toxicology Data Network; and the Registry of Toxic Effects of Chemical Substances (RTECS) database.

#### 16.5: Version

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