

**BIO BASIC INC.**  
20 KONRAD CRES, MARKHAM ONTARIO L3R 8T4 CANADA  
TEL: (905) 474 4493, (800) 313 7224 FAX: (905) 474 5794

MATERIAL SAFETY DATA SHEET  
REQUIRED UNDER SAFETY AND HEALTH REGULATION FOR SHIP REPAIRING

MANUFACTURER'S NAME: BIO BASIC INC.  
TEL: (905) 474 4493  
FAX: (905) 474 5794  
FOR CHEMICAL EMERGENCY: (416) 995 9730  
ADDRESS: 20 KONRAD CRES, MARKHAM ONTARIO L3R 8T4 CANADA

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**SECTION 1. ----- CHEMICAL IDENTIFICATION -----**

**Product Name** Lithium carbonate  
**Product Code(s)** LB0567  
**Recommended Use** For Laboratory Use Only  
Not for Human or Animal Drug Use

**SECTION 2. ----- HAZARDS IDENTIFICATION -----**

**Emergency Overview**

**Target Organs**

Central nervous system, Kidney, Cardiovascular system., Thyroid

**WHMIS Classification**

D2B Toxic Material Causing Other Toxic Effects Moderate eye irritant

**GHS Classification**

Acute toxicity, Oral (Category 4)  
Serious eye damage/eye irritation (Category 2A)

**GHS Label elements, including precautionary statements**

Pictogram



Signal word Warning

Hazard statement(s)

H302 Harmful if swallowed.  
H319 Causes serious eye irritation.

Precautionary statement(s)

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**HMIS Classification**

**Health hazard:** 1  
**Flammability:** 0  
**Physical hazards:** 0

**Potential Health Effects**

<b>Inhalation</b>	May be harmful if inhaled. May cause respiratory tract irritation.
<b>Skin</b>	Harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	Causes eye irritation.
<b>Ingestion</b>	Harmful if swallowed.

**SECTION 3. - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -**

<b>Chemical Name</b>	<b>EC No.</b>	<b>CAS-No</b>	<b>Weight %</b>
Lithium carbonate	209-062-5	554-13-2	95-100

**SECTION 4. - - - - - FIRST-AID MEASURES - - - - -**

**General advice**

Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**SECTION 5. - - - - - FIRE FIGHTING MEASURES - - - - -**

**Conditions of flammability**

Not flammable or combustible.

**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**Hazardous combustion products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Lithium oxides

**Explosion data - sensitivity to mechanical impact**

No data available

**Explosion data - sensitivity to static discharge**

No data available

**SECTION 6. - - - - - ACCIDENTAL RELEASE MEASURES - - - - -**

**Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

**Environmental precautions**

Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**SECTION 7. - - - - - HANDLING AND STORAGE - - - - -**

**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

**Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place.

**SECTION 8. - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - -****Personal protective equipment****Respiratory protection**

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Eye protection**

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin and body protection**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Specific engineering controls**

Use mechanical exhaust or laboratory fumehood to avoid exposure.

**SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -****Appearance**

Form	crystalline
Colour	white

**Safety data**

pH	9.0 - 11.0 at 1 g/l
Melting point/freezing point	Melting point/range: 618 °C (1,144 °F) - lit.
Boiling point	No data available
Flash point	No data available
Ignition temperature	No data available
Auto-ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour pressure	No data available

Density	2.11 g/cm <sup>3</sup>
Water solubility	8.4 g/l at 20 °C (68 °F) - OECD Test Guideline 105
Partition coefficient: n-octanol/water	No data available
Relative vapour density	No data available
Odour	odourless
Odour Threshold	No data available
Evaporation rate	No data available

## SECTION 10. -----STABILITY AND REACTIVITY -----

### **Chemical stability**

Stable under recommended storage conditions.

### **Possibility of hazardous reactions**

No data available

### **Conditions to avoid**

No data available

### **Materials to avoid**

Incompatible with strong acids and oxidizing agents.

### **Hazardous decomposition products**

Other decomposition products - No data available

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Lithium oxides

## SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

### **Acute toxicity**

#### **Oral LD50**

LD50 Oral - Rat - 525 mg/kg

#### **Inhalation LC50**

LC50 Inhalation - Rat - 4 h - > 2.17 mg/l

#### **Dermal LD50**

LD50 Dermal - Rat - male and female - > 2,000 mg/kg

#### **Other information on acute toxicity**

No data available

### **Skin corrosion/irritation**

No data available

### **Serious eye damage/eye irritation**

Eyes - Rabbit - Eye irritation

### **Respiratory or skin sensitisation**

Buehler Test - Guinea pig - OECD Test Guideline 406 - Did not cause sensitisation on laboratory animals.

### **Germ cell mutagenicity**

No data available

### **Carcinogenicity**

No data available

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as

probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**Reproductive toxicity**

No data available

**Teratogenicity**

Did not show teratogenic effects in animal experiments.

**Specific target organ toxicity - single exposure (Globally Harmonized System)**

No data available

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**

No data available

**Aspiration hazard**

No data available

**Potential health effects**

<b>Inhalation</b>	May be harmful if inhaled. May cause respiratory tract irritation.
<b>Ingestion</b>	Harmful if swallowed.
<b>Skin</b>	Harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	Causes eye irritation.

**Signs and Symptoms of Exposure**

Nausea, Anorexia., 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., Vomiting, Cyanosis and t-wave inversion have occurred in the breast-fed infants of women receiving lithium carbonate therapy.

**Synergistic effects**

No data available

**Additional Information**

RTECS: OJ5800000

**SECTION 12. ----- ECOLOGICAL INFORMATION -----**

**Toxicity**

Toxicity to fish	LC50 - Oncorhynchus mykiss (rainbow trout) - 30.3 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 33.2 mg/l - 48 h
Toxicity to algae	static test EC50 - Desmodesmus subspicatus (green algae) - > 400 mg/l - 72 h

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**PBT and vPvB assessment**

No data available

**Other adverse effects**

no data available

**SECTION 13. ----- DISPOSAL CONSIDERATIONS -----**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**

Dispose of as unused product.

**SECTION 14. ----- TRANSPORT INFORMATION -----**

**DOT (US)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**SECTION 15. ----- REGULATORY INFORMATION -----**

**WHMIS Classification**

D2B                      Toxic Material Causing Other Toxic Effects                      Moderate eye irritant

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**SECTION 16. ----- OTHER INFORMATION -----**

<b>Issuing Date</b>	13-Aug-2009
<b>Revision Date</b>	16-August-2016
<b>Revision Note</b>	No information available.
<b>Recommended Restrictions</b>	No information available

**Disclaimer**

The information provided on this MSDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

**End of MSDS**