



- Address: 860 South 19th Street, Richmond, CA 94804, USA
- Tel: 510-525-3070 Fax: 510-525-4705 Toll Free: 1-888-525-3070
- Email:
 - Questions and inquiries to **MTI's Equipment Department**, please send E-mail to info@mtixtl.com, we will reply you within 18 hours
 - Questions and inquiries to **MTI's Crystal, Substrates, Wafers & Powders Department**, please send Email to sales@mtixtl.com, we will reply you within 18 hours
- Please visit our 30K square foot facility , click for Map

MATERIAL SAFETY DATA SHEET

LITHIUM CARBONATE

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name:	Lithium Carbonate	EINECS No.:	209-062-5
Chemical name/synonyms:	Candamide; Carbonic acid, dilithium salt; Lithium carbonate (2:1); Dilithium carbonate	CAS No.:	554-13-2
Formula:	Li ₂ CO ₃	Chemical family:	Alkali Carbonates
Supplied by:	Chengdu Chemphys Chemical Industry Co., Ltd. No.381, Kebei Rd., Cross-Strait Technology Industry Development Park, Wenjiang, Chengdu, Sichuan, 611137, P. R. China		
Emergency phone:	86-28-85228102		
Product use:	Chemical Manufacturing		
Molecular Weight:	73.89		
More information:			

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS No	Percent	EC No.
Lithium Carbonate	554-13-2	99 - 100%	209-062-5

3. HAZARDS IDENTIFICATION

GENERAL: Warning! May be harmful if swallowed. May cause eye and skin irritation. May cause respiratory and digestive tract irritation. May cause central nervous system effects. May cause kidney damage. May cause reproductive and fetal effects.

TARGET ORGANS: Kidneys, central nervous system.

POTENTIAL HEALTH EFFECTS

INHALATION: May cause respiratory tract irritation.

SKIN CONTACT: May cause skin irritation with redness and pain. Sensitization may occur.

EYE CONTACT: May cause eye irritation with redness and pain.

INGESTION: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed.



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LISTED AS A CARCINOGEN/ POTENTIAL CARCINOGEN:

	YES	NO
In the National Toxicology Program (NTP) Report on Carcinogens		X
In the International Agency for Research on Cancer (IARC) Monographs		X
By the Occupational Safety and Health Administration (OSHA)		X

Note: This material is a suspected carcinogen, although it is not presently listed as such.

CHRONIC: Chronic exposure to lithium salts may cause drowsiness, visual abnormalities, weakness, ringing in the ears, and muscle tremors.

4. FIRST AID MEASURES

INHALATION: Move the person to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

SKIN CONTACT: Remove contaminated clothing and shoes. Flush affected skin with water for at least 15 minutes, then wash thoroughly with soap and water. If skin irritation persists, get medical aid and bring the container or label. Wash contaminated clothing before reusing.

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

INGESTION: Contact a poison control center immediately for instructions. Wash out mouth with water, but do not induce vomiting. Get medical aid at once, and bring the container or label._

NOTES TO MEDICAL DOCTOR:

Lithium carbonate has low toxicity and may produce moderate irritation. Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

GENERAL: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Dusts at sufficient concentrations can form explosive mixtures with air. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

EXTINGUISHING MEDIA:

Use extinguishing media appropriate to the surrounding fire, such as water spray, carbon dioxide, dry chemical, or foam. Cool containers from maximum distance using water spray.

FLASH POINT (°C): N/A



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AUTOIGNITION (°C): N/A
LOWER EXPLOSIVE LIMIT (LEL): N/A
UPPER EXPLOSIVE LIMIT (UEL): N/A
NFPA Rating: (estimated) Health: 1; Flammability: 0; Instability: 0

6. ACCIDENTAL RELEASE MEASURES

GENERAL: Use proper personal protective equipment as indicated in Section 8.

SPILLS/LEAKS: Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions. Provide ventilation.

7. HANDLING AND STORAGE

STORAGE: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

HANDLING: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Lithium carbonate	none listed	none listed	none listed

OSHA Vacated PELs: Lithium carbonate: No OSHA Vacated PELs are listed for this chemical.

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 protective gloves to prevent skin exposure.

CLOTHING: Wear appropriate protective clothing to prevent skin exposure.



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RESPIRATORS: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR:	Odorless
APPEARANCE:	Solid, white granular or powder
pH:	(1% Slurry) @ 25°C: 11.2
PERCENT VOLATILE:	Not applicable
VAPOR PRESSURE:	Not applicable
VAPOR DENSITY:	Not applicable
BOILING POINT:	Decomposes at 1310°C (2390°F)
MELTING POINT:	720°C (1330°F)
SOLUBILITY IN WATER:	1.3 g/100 cc @ 20°C
EVAPORATION RATE(Butyl Acetate = 1):	Not applicable
SPECIFIC GRAVITY:	2.1 g/cc
MOLECULAR WEIGHT:	73.89
COEFF. OIL/WATER:	Not applicable
ODOR THRESHOLD:	Not applicable
FLAMMABLE LIMITS:	Upper: Not available Lower: Not available.
FLASH POINT:	Not applicable
AUTOIGNITION TEMPERATURE:	Not applicable
EXPLOSIVE PROPERTIES:	Not explosive
OXIDIZING PROPERTIES:	Not an oxidizer

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal temperatures and pressures.

CONDITIONS TO AVOID: Incompatible materials.

INCOMPATIBILITIES WITH OTHER MATERIALS:

Strong oxidizing agents, strong acids, fluorine.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon monoxide, carbon dioxide, oxides of lithium.

HAZARDOUS POLYMERIZATION:

Has not been reported.



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11. TOXICOLOGICAL INFORMATION

LD50/LC50: **CAS# 554-13-2:**
Oral, mouse: LD50 = 531 mg/kg;
Oral, mouse: LD50 = 531 mg/kg;
Oral, rabbit: LD50 = 404 mg/kg;
Oral, rat: LD50 = 525 mg/kg;
Oral, rat: LD50 = 553 mg/kg;

CARCINOGENICITY: CAS# 554-13-2: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
EPIDEMIOLOGY: No information available.
TERATOGENICITY: No information available.
REPRODUCTIVE EFFECTS: No information available.
MUTAGENICITY: No information available.
NEUROTOXICITY: No information available.

12. ECOLOGICAL INFORMATION

ECOTOXICITY: No data available. No information available.
ENVIRONMENTAL: No information reported.
PHYSICAL: No information available.
OTHER: None.

13. DISPOSAL CONSIDERATIONS

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.
RCRA U-Series: None listed.

14. TRANSPORT INFORMATION

	US DOT	Canada TDG
Shipping Name:	Not regulated as a hazardous material	No information available.
Hazard Class:		
UN Number:		
Packing Group		



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15. REGULATORY INFORMATION

US FEDERAL

TSCA CAS# 554-13-2 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules None of the chemicals in this product are under a Chemical Test Rule.

Section 12b None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 554-13-2: delayed.

Section 313

This material contains Lithium carbonate (CAS# 554-13-2, 98.0%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.

STATE: CAS# 554-13-2 can be found on the following state right to know lists: New Jersey, Massachusetts.

California Prop 65:

WARNING: This product contains Lithium carbonate, a chemical known to the state of California to cause developmental reproductive toxicity.

California No Significant Risk Level: None of the chemicals in this product are listed.

EUROPEAN/INTERNATIONAL REGULATIONS

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases: R 22 Harmful if swallowed.

R 36 Irritating to eyes.

Safety Phrases:

WGK (Water Danger/Protection)

CAS# 554-13-2: 1

Canada - DSL/NDSL

CAS# 554-13-2 is listed on Canada's DSL List.



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Canada – WHMIS This product has a WHMIS classification of D2B.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

16、 OTHER INFORMATION

MSDS Creation Date: 01/07/2000
Revision #2 Date: 17/07/2008

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.
