Samchun Chemicals

Material Safety Data Sheet

Lithium carbonate

Section 1 – PRODUCT AND COMPANY IDENTIFICATION

1. Product Identifier Lithium carbonate; Carbonic acid dilithium salt

2. Recommended Use & Uses advised against Uses for Laboratory and R&D only

3. Information of Supplier

SAMCHUN PURE CHEMICAL CO.,LTD
ADDRESS; (Mogok-dong) 117, Sandan-ro 16Beon-gil, Pyeongtaek-si, Gyeonggi-do, Korea
Emergency Phone; 82-31-668-0700/3
Department; Safety & Environment dep.
Web site; http://www.samchun.com

Section 2 – HAZARDS and DANGER IDENTIFICATION

1.GHS Classification· Identification

Acute toxic(Oral)	Category4
Serious Eye Damage/Eye Irritation	Category2
Skin Corrosion/Skin Irritation	Category2

2. Label and Mark including Precautionary Statement

◦**Label elements**

◦**Signal word** Warning

◦**Hazard ·Danger statement**

H302 Harmful if swallowed
H315 Causes skin irritation
H319 Causes serious eye irritation

◦**Precautionary statement**

Precaution
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection

Measures
P330 Rinse mouth.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P321 Specific treatment (see Seciton 4. on this label).
P302+P352 IF ON SKIN: Wash with plenty of water
P332+P313 If skin irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash before reuse
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 If eye irritation persists: Get medical advice/attention.

Storage N/A

Dispose P501 Dispose of contents/container under related law and regulations

3. Other Hazard-Risk which are not included in the classification criteria

NFPA index(0~4steps) : Health=2, Fire=1, Reaction=0

Section 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Name	Other Name	CAS No.	Content (%)
Lithium carbonate	Carbonic acid dilithium salt	554-13-2	100

Section 4 – FIRST AID MEASURES

1. Eye Contact	Rinse with plenty of water for at least 15minutes and get medical attention immediately.
2. Skin Contact	Take off contaminated cloths and shoes immediately, wash with plenty of water and soap for at least 15minutes.
3. Inhalation	Move victim to fresh air. If breathing is difficult, give artificial respiration and get medical attention immediately.
4. Ingestion	Do not induce vomiting. Get medical advice/attention immediately.
5. Immediate medical attention and Notes for physician	Keep the medical personnel aware of the materials involved and take protective action.

Section 5 – FIRE-FIGHT MEASURES

1. Suitable extinguish media	Powdered fire extinguisher, carbon dioxide, foam extinguisher Inappropriate extinguishing media: N/A
2. Special hazards arising from the substance	Thermal decomposition products: carbon oxides, lithium oxides
3. Special protective equipment and Precautions for fire-fighters	Move containers from fire area if you can do it without risk. When extinguishing a fire, be sure to wear personal protective equipment. If it is not possible to extinguish the fire, withdraw immediately. Keep containers cool by spraying with water for a long time, even after the fire is out. Isolate hazardous areas and deny access to people.

Section 6 – ACCIDENTIAL RELEASE MEASURES

1.Personal precautions and Emergency procedures	Do not touch spilled material. Avoid inhalation and skin contact. In case of confined space, wear air respirator and ventilate and remove all sources of ignition.
2. Environmental precautions	Minimize leak/spill, collect and keep leak/spill in container
3. Methods and material for containment and cleaning up	Remove residue with high-efficient cleaner

Section 7 – HANDING AND STORAGE

1. Precautions for safe Handling	Avoid contact with skin, inhalation of vapor and intrusion into the eyes. Ground all containers. Minimize dust generation and accumulation.
2. Conditions for safe storage	Keep container tightly closed in a dry, cool and well-ventilated place. Keep away from incompatible materials.

Section 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

1.Occupational exposure limit, biological exposure limit
National law of Safety management of
N/A

2. Appropriate Engineering controls	Ensure compliance with applicable exposure limits and operate local exhaust ventilation when working.

3. Personal protective equipment

◦**Respiratory protection**	Because it is concerned about the harmfulness of human body due to chemical substances, it is recommended to wear respiratory protective equipment with dust mask or dust filter in consideration of physical and chemical characteristics when handling. Respiratory protection should be certified by the Health and Safety Authority. It is concerned about the harmfulness of the human body depending on the working environment, it should wear respirator, air-purifying respirator
◦**Eye-protection**	Wear safety glasses when handling as they may cause human health hazards due to chemicals. Install eye wash facilities and emergency eyewash stations near chemical handling sites
◦**Hand protection**	Wear safety gloves when handling, as it is likely to harm human health due to

	chemicals
◦**Skin and body proticion**	Wear chemical protective clothing when handling, as it is likely to harm human health due to chemicals

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

1.Physical state and color	Solid(White)	**2.Odor**	Odorless
3.threshold	N/A	**4. pH**	10~11(5g/l water solution at 20℃)
5.Melting/Freezing point	720℃	**6.Boiling point/range**	N/A
7. Flashing point	N/A	**8. Evaporation speed**	N/A
9. Flammability(solid,gas)	N/A	**10. Flash or Explosion limit upper / lower**	N/A
11. Vapor pressure	1hPa at 610℃	**12. Solubility**	13g/l(20℃)
13. Vapor density	N/A	**14.Gravity**	2.11
15. n-octanol-water Partition coefficient	N/A	**16. Self ignition temp(℃)**	N/A
17. Cracking temp(℃)	1310℃	**18. Viscosity**	N/A
19. Molecular Weight	73.88		

Section 10 – STABILITY AND REACTIVITY

1.Chemical stability and Possibility of Hazardous Reactions	Stable under normal temp. and pressure
2. Conditions to Avoid	Avoid contact with incompatible materials. Suppress dust generation
3. Incompatible Materials	Acid, halogen, metal, oxidizing agent, fluorine, zinc, aluminum
4. Hazardous Decomposition Products	Thermal decomposition products: carbon oxides, lithium oxides

Section 11 – TOXICOLOGICAL INFORMAION

1. Information on the likely routes of exposure.

N/A

2. Health hazard information

◦**Acute toxic**	Oral : LD50 525 ㎎/㎏ Rat Skin : N/A Inhalation : Dust LC50 > 2.17 ㎎/ℓ 4hr Rat
◦**Serious skin corrosive / irritation**	Causes skin irritation
◦**Serious eye damage / irritation**	May cause severe eye irritation. (Eye burns)
◦**Respiratory sensitization**	N/A
◦**Skin sensitization**	N/A
◦ **Carcinogenicity**	N/A
◦ **Germ cell Mutagenicity**	N/A
◦ **Reproductive toxic**	N/A
◦**Specific target organ toxicity (single exposure)**	Therapeutic use of lithium carbonate may result in toxic reactions that are not common. These include nerve root changes, central nervous system changes, cardiovascular changes, changes in the digestive system, and kidney damage. This appears to have temporarily hypokalemia due to nephritis
◦**Specific target organ toxicity (repeated exposure)**	N/A
◦**Aspiration hazard**	N/A

Section 12 – ECOLOGICAL INFORMATION

1.Acquatic and Terrestrial eco toxicity	Fish toxicity : LC50 8.1 ㎎/ℓ 96 hr Invertebrate toxicity : N/A Sea algae : N/A
2.Persistence and degradability	Persistence : log Kow -6.19 (Estiamte) Degradability : N/A
3.Bioaccumulative potential	Concentrations : BCF 3.162 Bioaccumulative : N/A
4.Mobility in soil	N/A
5.Other adverse effects	Toxicity to aquatic organisms due to long-term effects

Section 13 – Disposable considerations

1.Waste methods	Dispose in accordance with local regulations.
2.Waste warning	Dispose prohibited substances and waste separately from others.

Section 14 – TRANSPORT INFORMATION

1. UN No.	2811
2.Proper shipping Name	TOXIC SOLID, N.O.S.
3.Hazard class	6.1
4.Packing group	Ⅲ
5.Marine pollutnat	N/A
6.Particular safety Measures for transportation	Fire emergency : F-A Emergency measures RELEASE : S-A

Section 15 – REGULATARY INFORMATION

1.Occupation safety and health acts	Non-described
2. Chemical Substances Control Act	Non-described
3. National law of Safety management of hazardous material	Non-described
4.National law of management of Wastes	Designated Waste
5.Other domestic and foreign law	Non-described

Section 16 – OTHER INFORMATION

1. Material source	A chemical information MSDS Safety and Health Agency National Institute of Environmental Research Chemical Information Systems Korea Industrial Technology National Fire Hazardous Materials Information System
1. The 1st edition	2002.07.30
2. Revision and The final revision	5 / 2019.01.03

. Other references

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