



SAFETY DATA SHEET

5150 LITHIUM CARBONATE

1. Identification of substance/preparation and of the company undertaking

Trade Name:	Lithium Carbonate
Chemical Name:	Lithium Carbonate
Synonyms:	Dilithium carbonate, carbonic acid, dilithium salt.

2. Composition /information on ingredients

Component	CAS	EINECS	% of composition
Li ₂ CO ₂	554-13-2	2090625	>99

3. Hazards Identification

Lithium poisoning affects many organs and systems and has no clearly defined symptoms. It can cause tremors, weakness and fatigue, drowsiness, slurred speech, kidney damage and heritable genetic damage.

Especially avoid the intraperitoneal and intravenous routes (unlikely)

Inhalation	Irritation to nasal passages, drowsiness, shortness of breath, confusion.
Ingestion	Nausea, vomiting, confusion, slurred speech.
Eyes	Irritation, inflammation and watering.
Skin	Cause irritation and redness.

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water, including under eyelid. Seek medical advice.
Skin	Wash affected areas with water, seek medical advice if irritation persists.



5. Fire Fighting Hazards

Extinguishing media	Suitable for surrounding fire conditions.
Special Exposure Hazard	In the event of a fire the product may emit harmful or toxic fumes.
Personal protective equipment	Self contained breathing apparatus.

6. Accidental Release Measure

Leaks and spills	Use suitable vacuum equipment where reasonably practicable, otherwise damp down and scoop into a receptacle.
Personal protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink or smoke in areas where the material is used. Wash thoroughly after handling the material.
Storage	Store in dry area.

8. Exposure Control/Personal Protection

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended.
Personal Protective equipment	Where LEV is not practicable and exposure is likely to be excessive, approved respiratory protection to CEN standards prEN 140, 141, 143 or 149 should be worn. Protective gloves and overalls are recommended for prolonged contact.

9. Physical & Chemical Properties

Appearance and Odour	White powder, odourless
Flash point (°C)	Not applicable
Flammability	Not applicable
Explosive properties	Non-explosive
Oxidising properties	None
Specific gravity	2.1
pH Value	9-11 in solution 1% at 25°C
Melting point (°C)	732°C



10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	Acids
Hazardous decomposition products	Decomposes above 600°C emitting CO ₂ and lithium oxide (alkaline).
Hazardous polymerization products	None

11. Toxicological Information

Acute toxicology	LD50	Oral (rat)	525 mg/kg
	LD50	Dermal	Not known
	LD50	Inhalation	Not known
	LD50	Intraperitoneal (rat)	156 mg/kg
	LD50	Intravenous (rat)	251 mg/kg
	From 'sax' there is enough evidence to classify it as Category 3 carcinogen Category 3 mutagen		
Health Effects	Prolonged or repeated exposure above Occupational Exposure Standards may cause the effects described in Section 3.		

12. Ecological Information

Ecotoxicity	Not known
Persistence	The product is chemically stable and will persist in the environment.

13. Disposal Considerations

Dispose in accordance with current waste Disposal regulations (for UK – Control of Pollution {Special Waste} Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
	ADR	Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified



15. Regulatory Information

EC Supply Labelling	Harmful	
	Category 3 carcinogen	
	Category 3 mutagen	
R Phrases	R20/22	Harmful by inhalation and if swallowed.
	R36/37/38	Irritating to the eyes, respiratory system and to the skin.
	R40	Possible risk of irreversible effects
S Phrases	S22/23	Do not breathe dust or spray.
	S26	In case of contact with eyes rinse immediately with plenty of water and seek medical advice.
	S28	After contact with skin wash immediately with plenty of water.

UK Occupational exposures limits (Refer to HSE Guidance note EH40)	Mg/m ³	8 hr TWA	% in product
Total dust – Inhalable		10	-
Total dust – Respirable		5	-

In accordance with HSE Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

16. Other Information

References	
COSHH ACOP	HSC approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996
CHIP SDS ACOPS	HSC Approved Code of Practice for Safety data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40	HSE Guidance note EH40 on Occupational Exposure Limits to be used in conjunction with the COSHH regulations.