SECTION 1. IDENTIFICATION

Product Identifier: Lithium 6 Carbonate

Product Code: LI-CB-6-ISO

CAS Number: 25890-20-4

Relevant identified uses of the substance: Scientific research and development

Supplier details:

American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
Fax: +1 310-208-0351
Emergency telephone number:
+1 800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4), H302
Eye irritation (Category 2A), H319
Acute aquatic toxicity (Category 3), H402

2.2 GHS Label elements, including precautionary statements

Pictogram
Signal word Warning
Hazard statement(s)
H302 Harmful if swallowed.
H319 Causes serious eye irritation.
H402 Harmful to aquatic life.
Precautionary statement(s)
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear eye protection/ face protection.
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
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.
P501 Dispose of contents/container to an approved waste disposal plant.
2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Chemical characterization: Isotopically labeled
Synonyms: Carbolithium-6
Carbonic acid lithium-6 salt
Formula: C6Li2O3
Molecular weight: 72.04 g/mol
CAS-No.: 25890-20-4
Hazardous components
Component Classification Concentration
Lithium-6Li carbonate
Acute Tox. 4; Eye Irrit. 2A;
Aquatic Acute 3; H302, H319, H402
<= 100 %

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures
General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
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.
4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
4.3 Indication of any immediate medical attention and special treatment needed
No data available
SECTION 5. FIREFIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
Carbon oxides, Lithium oxides

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
No data available

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid dust formation. Avoid breathing Vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.
For personal protection see section 8.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 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.

6.4 Reference to other sections
For disposal see section 13.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.
Provide appropriate exhaust ventilation at places where dust is formed.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place.
Store under inert gas. hygroscopic
Storage class (TRGS 510): Non Combustible Solids

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
Components with workplace control parameters
Contains no substances with occupational exposure limit values.

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

Personal protective equipment
Eye/face 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 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.

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.

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).

Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
a) Appearance Form: solid
b) Odor No data available
c) Odor Threshold No data available
d) pH No data available
e) Melting point/freezing point
   Melting point/range: 720 °C (1,328 °F) - lit.
f) Initial boiling point and boiling range
   No data available
g) Flash point N/A
h) Evaporation rate No data available
i) Flammability (solid, gas) No data available
j) Upper/lower flammability or explosive limits
   No data available
k) Vapor pressure No data available
SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
Oxidizing agents, Strong acids, Fluorine

10.6 Hazardous decomposition products
Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - Rat - 525 mg/kg
Remarks: Read-across (Analogy)

Inhalation: No data available
Dermal: No data available
No data available

Skin corrosion/irritation
Skin - Rat
Result: No skin irritation
(OECD Test Guideline 404)
Remarks: Read-across (Analogy)
Serious eye damage/eye irritation
Eyes - Rat
Result: Moderate eye irritation
(OECD Test Guideline 405)
Remarks: Read-across (Analogy)
Respiratory or skin sensitisation
Buehler Test - Guinea pig
Did not cause sensitisation on laboratory animals.

(OECD Test Guideline 406)
Remarks: Read-across (Analogy)
Germ cell mutagenicity
Animal testing did not show any mutagenic effects.

Result: Not mutagenic in Ames Test
Read-across (Analogy)
Carcinogenicity
No data available
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a 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.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
Effects on or via lactation
Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments. Lithium and its compounds are possible teratogens by analogy to lithium carbonate which has equivocal human teratogenic data and positive animal teratogenic data.
Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.
Specific target organ toxicity - single exposure
No data available
Specific target organ toxicity - repeated exposure
No data available
Aspiration hazard
No data available
Additional Information
RTECS: Not available
Stomach - Irregularities - Based on Human Evidence

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity
Toxicity to fish EC50 - Oncorhynchus mykiss (rainbow trout) - 30.3 mg/l - 96 h
(OECD Test Guideline 203)
Remarks: Read-across (Analogy)
NOEC - Oncorhynchus mykiss (rainbow trout) - 19.1 mg/l
Remarks: Read-across (Analogy)
Toxicity to daphnia and other aquatic invertebrates
EC50 - Daphnia magna (Water flea) - 33 mg/l - 48 h
(OECD Test Guideline 202)
Remarks: Read-across (Analogy)
NOEC - Daphnia magna (Water flea) - 20 mg/l
Remarks: Read-across (Analogy)
Toxicity to algae ErC50 - Pseudokirchneriella subcapitata (green algae) - > 400 mg/l - 72 h
(OECD Test Guideline 201)
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 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
12.6 Other adverse effects
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.
No data available

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
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

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components
The following components are subject to reporting levels established by SARA Title III, Section 313:
Lithium-6Li carbonate
CAS-No. 25890-20-4
Revision Date 2007-07-01
SARA 311/312 Hazards
Acute Health Hazard, Chronic Health Hazard
Massachusetts Right To Know Components
Lithium-6Li carbonate
CAS-No.
25890-20-4
Revision Date
2007-07-01
Pennsylvania Right To Know Components
Lithium-6Li carbonate
CAS-No.
25890-20-4
Revision Date
2007-07-01
New Jersey Right To Know Components
Lithium-6Li carbonate
CAS-No.
25890-20-4
Revision Date
2007-07-01
California Prop. 65 Components
WARNING: This product contains a chemical known to the
State of California to cause birth defects or other reproductive
harm.
Lithium-6Li carbonate
CAS-No.
25890-20-4
Revision Date
2007

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is
believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The
information in this document is based on the present state of our knowledge and is applicable to the
product with regard to appropriate safety precautions. It does not represent any guarantee of the
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