

Safety Data Sheet

According to 29 CFR 1910.1200 Appendix D; Regulation (EC) No 1907/2006; GHS Rev. 9, 2001

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name Lithium Chloride Solution: 0.15 a_w, 0.25 a_w, 0.50 a_w.
Product numbers 20861, 20862, 40748, 40744, 40745

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses Verification/calibration standard for AQUALAB instruments.
Uses advised against Do not use for private purposes (household), professional use only.

1.3 Details of the supplier of the safety data sheet

Company ADDIUM, Inc.
1300 NE Henley Court
Pullman, WA 99163 USA
Telephone +1 (509) 332-6000
Website aqualab.com

1.4 Emergency telephone

Emergency phone number +1 (509) 332-6000, 8-5 PST/PDT

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Acute toxicity – Oral Category 4 – H302
Eye Irritation Category 2 – H319
Skin Irritation Category 2 – H315

2.2 Label elements

Pictogram

GHS07



Hazard Statement(s)

H302 – Harmful if swallowed.

H315 – Causes skin irritation.

H319 – Causes serious eye irritation.

Precautionary Statement(s)

P264 – Wash skin thoroughly after handling

P270 – Do not eat, drink or smoke when using this product.

P280 – Wear protective gloves/eye protection/face protection.

P301 + P312 – IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P302 + P352 – IF ON SKIN: Wash with plenty of soap and water.

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

P332 + P313 – If skin irritation occurs: Get medical advice/attention.

P337 + P313 – If eye irritation persists: Get medical advice/attention.

P362 – Take off contaminated clothing and wash before reuse.

P501 – Dispose of contents/container to an approved waste disposal plant.

2.3 Other hazards

Product fails to meet PBT or vPvB criteria.

Section 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Lithium Chloride Aqueous Solution

Chemical name	Weight %	REACH registration number	CAS number	EC number	Classification, hazard statement codes (EC 1272/2008, GHS)
Lithium chloride	26-42	01-2119560574-35-xxxx	7447-41-8	231-212-3	Acute Tox. 4 (H302) Eye Irrit. 2 (H319) Skin Irrit. 2 (H315)

Section 4: First aid measures

4.1 Description of first-aid measures

General advice	Call a physician. Show first responders and physician this safety data sheet.
If inhaled	If uncomfortable, remove person to fresh air and keep in resting position. Seek medical attention if symptoms get worse or persist.
In case of skin contact	Wash exposed areas with plenty of water and soap. Seek medical attention if discomfort persists.
In case of eye contact	Irrigate with plenty of water, at least 15 minutes. Seek medical attention if irritation persists.
If swallowed	Do not induce vomiting. Rinse mouth with water and drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	Skin and eye irritation.
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4.3 Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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Section 5: Firefighting measures

5.1 Extinguishing media

Dry chemical, carbon dioxide (CO₂), water spray, or regular foam.

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products formed under fire conditions.

5.3 Advice for firefighters

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face-piece operated in positive mode.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Emergency and Non-Emergency Personnel: Ensure adequate ventilation, avoid contact with skin, eyes, and clothing, wear personal protective equipment.

6.2 Environmental precautions

Contain spill. Do not wash into drains. Dispose of at a qualified waste disposal facility.

6.3 Methods and material for containment and cleaning up

Take up manually, placing into appropriate containers for disposal. Clean contaminated area thoroughly.

6.4 Reference to other sections

See Sections 2, 8, and 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with eyes, skin, or clothing. Use with adequate ventilation. Wear appropriate personal protective equipment: See Section 8. Handle in accordance with good industrial hygiene and safety practices.

7.2 Conditions for safe storage, including any incompatibilities

Store at room temperature and keep away from strong acids.

7.3 Specific end use(s)

Industrial and professional use only.

Section 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering Controls Local exhaust. Use in well-ventilated areas.

Personal Protective Equipment

Eye/face protection If there is a risk of splashing, use goggles with side shields.

Skin protection Use proper protective gloves and lab coat/apron.

Respiratory protection Respiratory protection not required. For nuisance exposures, use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Colorless
Color	Colorless
Odor	Odorless
Melting point/freezing point	No data available
Boiling point or initial boiling point and boiling range	No data available
Flammability	Not applicable
Lower and upper explosion limit	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	No data available
pH	6
Kinematic viscosity	No data available
Solubility	Complete in water
Partition coefficient n-octanol/water (log value)	No data available
Vapor pressure	No data available
Density and/or relative density	No data available
Relative vapor density	No data available
Particle characteristics	No data available

9.2 Other information

Molecular weight 42.4 (LiCl)

Section 10: Stability and reactivity

10.1 Reactivity

Can react quickly with oxidizers.

10.2 Chemical stability

Stable under recommended storage and handling conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerization will not occur. Can react quickly with oxidizers.

10.4 Conditions to avoid

Avoid strong oxidizing agents, strong acids, and bromide trifluoride.

10.5 Incompatible materials

Avoid strong oxidizing agents, strong acids, and bromide trifluoride.

10.6 Hazardous decomposition of products

Thermal decomposition can lead to release of irritating fumes and toxic gasses. Hydrogen chloride, oxides of lithium.

Section 11: Toxicological information

11.1 Information on hazard classes

Acute toxicity	Lithium chloride acute oral toxicity	LD50 (Rat, male): >526 mg/kg
	Lithium chloride acute inhalation toxicity	LC50: >5.57 mg/L (rat, male and female)
	Lithium chloride acute dermal toxicity	LC50: >2000 mg/kg (rat, male)
Skin corrosion/irritation	Classified as not irritating to skin on the basis of lithium chloride.	
Serious eye damage/irritation	Classified as irritant to eyes on the basis of lithium chloride	
Respiratory or skin sensation	Classified as not sensitizing to skin on the basis of lithium chloride	
Germ cell mutagenicity	Classified as not mutagenic based on lithium chloride	
Carcinogenicity	EH40	Not listed
	IARC	Not listed
	NTP	Not listed
	OSHA	Not considered a carcinogen under OSHA
	ACGIH	Not listed
Reproductive toxicity	Classified as not a reproductive toxin based on lithium chloride.	
STOT-single exposure	Classified as not causing organ damage based on lithium chloride	
STOT-repeated exposure	Classified as not causing organ damage on repeat exposure based on lithium chloride	
Aspiration hazard	Lithium chloride solution does not present an aspiration hazard.	

11.2 Information on other hazards

Endocrine disrupting properties	No information available
Other information	No information available

Section 12: Ecological information

12.1 Toxicity

Fish	Oncorhynchus mykiss (rainbow trout): LC50 = 158 mg/L, 96 h
Aquatic invertebrates	Daphnia magna (water flea): EC50 = 249 mg/L, 48 h
Aquatic invertebrates	Daphnia reproduction (water flea) NOEC 10.4 mg/L, 21 day

12.2 Persistence and degradability

Inorganic salt.

12.3 Bioaccumulative potential

Inorganic. Lithium salts are not bioaccumulative.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Inorganic salt: PBT & vPvB assessment does not apply.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

Section 13: Disposal considerations

13.1 Waste treatment methods

Disposal should be in accordance with the principles of Duty of Care observing local and national regulations. Keep out of drains, sewers, ditches, and waterways. Triple rinse contaminated containers prior to disposal.

Section 14: Transport information

14.1 UN number or ID number

Not regulated.

14.2 UN proper shipping name

Not regulated.

14.3 Transport hazard class(es)

Not regulated.

14.4 Packing group

Not regulated.

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for user

No additional information.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

Section 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

European Union

Directive 98/24/EC	Refer to this directive for general risks related to chemical agents at work.
Directive 2012/18/EU	Not assigned.

United States

TSCA	CAS# 7447-41-8 and 7732-18-5 are listed in 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 Chemical Test Rules
Section 12b	None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rules	None of the chemicals in this material have a SNUR under TSCA.
SARA Section 302 (RQ)	None of the chemicals in this material have an RQ.
SARA Section 302 (TPQ)	None of the chemicals in this product have a TPQ.
SARA Codes	None.
Section 313 Reportable Ingredients (40 CFR 372)	No chemicals are reportable under Section 313.
Clean Air Act	This material does not contain any hazardous air pollutants. This material does not contain any Class I Ozone-Depleting Substances. This material does not contain any Class II Ozone-Depleting Substances.
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	PSHA does not consider any of the chemicals in this product highly hazardous.

State Regulations

CAS # 7447-41-8 and CAS# 7732-18-5 are not present on state lists from CA, PA, MN, MA, FL, or NJ.
California No Significant Risk Level: None of the chemicals in this product are listed.

Canada

DSL List	CAS# 7447-41-8 and 7732-18-5 are listed
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15.2 Chemical safety assessment

A chemical safety assessment has not been completed for this material.

Section 16: Other information

Abbreviations and acronyms

ACGIH	American Conference of Governmental Industrial Hygienists, United States
Acute Tox.	Acute toxicity
CAS	Chemical Abstracts Service, American Chemical Society
CEN	European Committee for Standardization, European Union
CFR	Code of Federal Regulations, United States
DSL	Domestic Substance List, Canada
EC	European Commission
EH40	Workplace exposure limits, United Kingdom
Eye Irrit.	Eye irritation
GHS	Globally Harmonized System of Classification and Labelling of Chemicals developed by the United Nations
IARC	International Agency for Research on Cancer, World Health Organization
LC50	Lethal Concentration 50% of a test population during a specified time interval
LD50	Lethal Dose 50% of a test population during a specified time interval
LiCl	Lithium Chloride
NIOSH	National Institute for Occupational Safety and Health, United States
NTP	National Toxicology Program, United States
OSHA	Occupational Health and Safety, United States
PBT	Persistent, Bioaccumulative, and Toxic
PST/PDT	Pacific Standard Time/Pacific Daily Time: Time zone information
REACH	Regulation on the Registration, Evaluation, Authorization, and Restriction of Chemicals, European Union
SARA	Superfund Amendments and Reauthorization Act, United States
Skin Irrit.	Skin irritation
STOT	Specific Target Organ Toxicity
TSCA	Toxic Substances Control Act, United States
vPvB	Very Persistent and Very Bioaccumulative

Information Sources

Product classified according to CHIP3 regulations. (The Chemicals Hazard Information and Packaging for Supply Regulations 2002)

Notice

The foregoing data has been compiled for safety information only and does not form part of any selling specification. Information contained in this data sheet is to the best of ADDIUM, Inc. knowledge correct at the time of publication. Customers should always satisfy for themselves that their product is entirely suitable for their purpose under their conditions of use and in compliance with current regulations. For any further information, please contact the supplier.