Lithium chloride Analytical Grade ACS

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Date of issue: 22/03/2011 Revision date: 30/11/2022 Supersedes version of: 02/02/2018 Version: 1.3

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

1.1. Product identifier

Product form	:	Substance
Trade name	:	Lithium chloride Analytical Grade ACS
IUPAC name	:	lithium chloride
EC-No.	:	231-212-3
CAS-No.	:	7447-41-8
REACH registration No	:	01-2119560574-35
Product code	:	LICH-00A
Formula	:	LiCl

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

1.2.1. Relevant identified uses

Main use category : Laboratory use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

labbox labware s.l.
Migjorn, 1
P.O. Box Barcelona (SPAIN)
08338 Premia de Dalt – SPAIN
ES
T +34 937 07 79 70 - F +34 937 909 532
info@labbox.com - www.labbox.com

1.4. Emergency telephone number

Emergency number : +34 937 077 970 (For technical information_Office Hours) In case of medical emergency phone 112 or to your local emergency number.

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	0344 892 0111	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4	H302
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319

Full text of H and EUH statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) : Warning

Hazard statements (CLP) : H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.

Precautionary statements (CLP) : P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P330 - Rinse mouth.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%
Lithium chloride	CAS-No.: 7447-41-8 EC-No.: 231-212-3 REACH-no: 01-2119560574-35	≥ 100

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after skin contact : Causes skin irritation.

Symptoms/effects after eye contact : Causes serious eye irritation.

Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

Never give anything by mouth to an unconscious person.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : ABC-powder.
Unsuitable extinguishing media : Strong water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : fume.

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Measures in case of dust release : Do not breathe dust.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Stop leak if safe to do so.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Large spills: scoop solid spill into closing containers. This material and its container must be disposed of in a safe way, and as per local legislation. Collect spillage.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

See Heading 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station.
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Store in a well-ventilated place. Keep container tightly closed.
Incompatible products : Strong bases. Strong acids.
Incompatible materials : Heat sources.
Maximum storage period : 6 months
Storage temperature : 5 – 30 °C
Special rules on packaging : Keep only in original container. Store in a closed container.

7.3. Specific end use(s)

Laboratory chemicals.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Lithium chloride Analytical Grade ACS (7447-41-8)	
DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	100
Acute - systemic effects, inhalation	30 mg/m³
Long-term - systemic effects, dermal	73,2 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	10 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, dermal	50 mg/kg bodyweight/day
Acute - systemic effects, inhalation	30 mg/m³
Acute - systemic effects, oral	21,96 mg/kg bodyweight/day
Long-term - systemic effects,oral	7,32 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	10 mg/m³
Long-term - systemic effects, dermal	72,3 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	10,4 mg/l
PNEC aqua (marine water)	1,04 mg/l
PNEC aqua (intermittent, freshwater)	10,4 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	49,9 mg/kg dwt
PNEC sediment (marine water)	4,99 mg/kg dwt
PNEC (Soil)	
PNEC soil	4,13 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	140,2 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

Personal protective equipment:
Avoid all unnecessary exposure. EN 374.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:
Safety glasses

Eye protection			
Type	**Field of application**	**Characteristics**	**Standard**
Category II			EN 166

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

Skin and body protection	
Type	**Standard**
Protective clothing	

Hand protection:
protective gloves

Hand protection					
Type	**Material**	**Permeation**	**Thickness (mm)**	**Penetration**	**Standard**
Category I					

Other skin protection Materials for protective clothing		
Condition	**Material**	**Standard**
		EN ISO 20347

8.2.2.3. Respiratory protection

Respiratory protection:
Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Other information:
The present safety data sheet is consistent with the specific conditions relied on to justify the registration of the substance in accordance with Article 17 or 18 of the REACH regulation. Do not eat, drink or smoke during use. Wash hands with water as a precaution.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Colour	:	Not available
Odour	:	Not available

Odour threshold	:	Not available
Melting point	:	608,52 °C Atm. press.: 1013,25 hPa
Freezing point	:	Not available
Boiling point	:	1355 °C
Flammability	:	Not available
Explosive limits	:	Not applicable
Lower explosion limit	:	Not applicable
Upper explosion limit	:	Not applicable
Flash point	:	Not applicable
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	Not available
pH	:	Not available
pH solution	:	Not available
Viscosity, kinematic	:	Not applicable
Solubility	:	Not available
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	0 Pa Temp.: 25 °C
Vapour pressure at 50 °C	:	Not available
Density	:	1,06 g/cm³ Type: 'density' Temp.: 20 °C
Relative density	:	Not available
Relative vapour density at 20 °C	:	Not applicable
Particle size	:	Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content	:	0 %

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable in use and storage conditions as recommended in item 7.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

Strong bases. Strong acids.

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	:	Harmful if swallowed.
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

Lithium chloride Analytical Grade ACS (7447-41-8)	
LD50 oral rat	526 mg/kg bodyweight Animal: rat, Animal sex: male
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Guideline: EPA OPP 81-2 (Acute Dermal Toxicity)
LC50 inhalation rat (mg/l)	> 5,57 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Lithium chloride Analytical Grade ACS (7447-41-8)	
NOAEL (oral, rat, 90 days)	84,8 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 452 (Chronic Toxicity Studies)

Aspiration hazard : Not classified

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

Lithium chloride Analytical Grade ACS (7447-41-8)	
LC50 - Fish [1]	158 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Daphnia [1]	249 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 400 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	112 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
LOEC (chronic)	2,53 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.

Waste treatment methods : Must follow special treatment according to local regulation.

HP Code : HP6 - “Acute Toxicity:” waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.
HP4 - “Irritant — skin irritation and eye damage:” waste which on application can cause skin irritation or damage to the eye.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number

UN-No. (ADR) : Not regulated

UN-No. (IMDG) : Not regulated

UN-No. (IATA) : Not regulated

UN-No. (ADN) : Not regulated

UN-No. (RID) : Not regulated

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not regulated

Proper Shipping Name (IMDG) : Not regulated

Proper Shipping Name (IATA) : Not regulated

Proper Shipping Name (ADN) : Not regulated

Proper Shipping Name (RID) : Not regulated

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not regulated

IMDG

Transport hazard class(es) (IMDG) : Not regulated

IATA

Transport hazard class(es) (IATA) : Not regulated

ADN

Transport hazard class(es) (ADN) : Not regulated

RID

Transport hazard class(es) (RID) : Not regulated

14.4. Packing group

Packing group (ADR) : Not regulated

Packing group (IMDG) : Not regulated

Packing group (IATA)	:	Not regulated
Packing group (ADN)	:	Not regulated
Packing group (RID)	:	Not regulated

14.5. Environmental hazards

Dangerous for the environment	:	No
Marine pollutant	:	No
Other information	:	No supplementary information available

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

No REACH Annex XVII restrictions

REACH Annex XIV (Authorisation List)

Lithium chloride Analytical Grade ACS is not on the REACH Annex XIV List

REACH Candidate List (SVHC)

Lithium chloride Analytical Grade ACS is not on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Lithium chloride Analytical Grade ACS is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 july 2012 concerning the export and import of hazardous chemicals.

POP Regulation (Persistent Organic Pollutants)

Lithium chloride Analytical Grade ACS is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Ozone Regulation (1005/2009)

Lithium chloride is not subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

VOC Directive (2004/42)

VOC content : 0 %

Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Drug Precursors Regulation (273/2004)

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

Germany

Water hazard class (WGK)	:	WGK 1, Slightly hazardous to water (Classification according to VwVwS, Annex 3; ID No. 2440).
Hazardous Incident Ordinance (12. BImSchV)	:	Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen	:	The substance is not listed
SZW-lijst van mutagene stoffen	:	The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	:	Lithium chloride is listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	:	Lithium chloride is listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	:	Lithium chloride is listed

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
Skin Irrit. 2	Skin corrosion/irritation, Category 2

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.