

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

1.1 Identification of the substance/preparation

Product name : Lithium Chloride (7.5 M) (EzRNA™ T7 High Yield RNA Synthesis Kit (me¹Ψ-UTP))

Product code : CHIT01 (IT1200)

Recommended use : For laboratory use.

1.2 Company/Undertaking identification

SMOBIO Technology, Inc.

3F, No. 15, Industry E. 9th Rd., Hsinchu Science Park, Hsinchu 300096, Taiwan

Tel : +886 3 5799292

Fax : +886 3 5790202

E-mail : support@smobio.com

1.3 Emergency telephone number

Emergency telephone : +886 3 5799292 (09.00-18.00 TST)

2. Hazards identification

2.1 Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute toxicity - oral	Category 4 – (H302)
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2.2 Label elements



Signal Word : Warning

Hazard statements

H302 - Harmful if swallowed

Precautionary Statements - EU (§28, 1272/2008)

P264 - Wash face, hands and any exposed skin thoroughly after handling.

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

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

P330 - Rinse mouth.

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

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

Additional information

This product requires tactile warnings if supplied to the general public.

2.3 Other information

No information available.

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

3. Composition/information on ingredient

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Lithium Chloride Solution 7447-41-8	15 - 40	No data available	231-212-3	Acute Tox. 4 (H302)

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 – 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Lithium Chloride Solution 7447-41-8	526	2000	No data available	No data available	No data available

4. First aid measures

4.1 Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	No information available.
Effects of Exposure	No information available.

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

Note to physicians	Treat symptomatically.
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5. Fire-fighting measures

5.1 Suitable extinguishing agents

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Not suitable extinguishing agents

Do not scatter spilled material with high pressure water streams.

5.3 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical No information available.

5.4 Advice for firefighters	
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
6. Accidental release measures	
6.1 Personal precautions	
Wear appropriate gloves (see Section 8), safety glasses to clean small releases/spillage. In case of vapor/aerosol formation, wear suitable respiratory protection means. Ventilate the area.	
6.2 Environmental precautions	
Environmental precautions	See Section 12 for additional Ecological Information
6.3 Methods and materials for containment and cleaning up	
Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Take up mechanically, placing in appropriate containers for disposal.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.
7. Handling and storage	
7.1 Precautions for safe handling	
Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice.
7.2 Storage	
Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.	
8. Exposure controls/personal protection	
8.1 Control parameters	
Exposure Limits	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Biological occupational exposure limits	This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

8.2 Exposure controls

Engineering controls	No information available.
Individual protection measures, such as personal protective equipment	
Skin and body protection	No special protective equipment required.
Eye/face protection	No special protective equipment required.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.
Environmental exposure controls	No information available.

9. Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Physical state: Liquid.

Appearance: Colorless.

Color: No information available.

Odor: Mild.

pH-value: No data available.

Boiling point: No data available.

Flash Point: No data available.

Autoignition temperature: 200°C.

Flammability / autoflammability: No data available.

Explosive properties: The preparation does not possess explosive properties.

Oxidizing properties: No data available.

Vapor pressure: No data available.

Relative density at 20°C: No data available.

Solubility in/miscibility with water: No data available

Fat solubility: No data available.

Vapor density: No data available.

Evaporation rate: No data available.

Conductivity: No data available.

Viscosity: No data available.

9.2 Other information

No further relevant information available.

10. Stability and reactivity**10.1 Stability**

Stable under storage conditions (see section 7).

10.2 Reactivity

No information available.

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

None known based on information supplied.

10.6 Hazardous decomposition products

None known based on information supplied.

11. Toxicological information**11.1 Information on likely routes of exposures****Inhalation:**

Specific test data for the substance or mixture is not available.

Ingestion:

Specific test data for the substance or mixture is not available. Harmful if swallowed.

Skin and eye contact:

Specific test data for the substance or mixture is not available.

Acute toxicity:

Harmful if swallowed.

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	1,654.10 mg/kg
ATEmix (dermal)	3,459.10 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-vapor)	99,999.00 mg/l
ATEmix (inhalation-dust/mist)	99,999.00 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Lithium Chloride Solution	= 526 mg/kg (Rat)	>2000 mg/kg (Rat)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Endocrine disrupting properties No information available.

11.2.2 Other information

Other adverse effects No information available.

12. Ecological information

12.1 Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Lithium Chloride Solution	-	LC50: =158mg/L (96h, Oncorhynchus mykiss)	-	-

12.2 Persistence and degradability

Persistence and degradability No information available.

12.3 Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient																		
Lithium Chloride Solution	-2.66																		
<p>12.4 Other adverse effects</p> <p>No information available.</p>																			
<p>13. Disposal consideration</p> <p>13.1 Waste treatment methods</p> <p>Waste from residues / unused products: Dispose of in accordance with local regulation. Contaminated packaging: Do not reuse empty containers.</p>																			
<p>14. Transport information</p> <p>IATA: Not regulated. IMDG/IMO: Not regulated. RID: Not regulated. ADR: Not regulated. DOT: Not regulated</p>																			
<p>15. Regulatory information</p> <p><u>International Inventories</u></p> <table border="0"> <tr> <td>TSCA</td> <td>Contact supplier for inventory compliance status</td> </tr> <tr> <td>DSL/NDSL</td> <td>Contact supplier for inventory compliance status</td> </tr> <tr> <td>EINECS/ELINCS</td> <td>Contact supplier for inventory compliance status</td> </tr> <tr> <td>ENCS</td> <td>Contact supplier for inventory compliance status</td> </tr> <tr> <td>IECSC</td> <td>Contact supplier for inventory compliance status</td> </tr> <tr> <td>KECL</td> <td>Contact supplier for inventory compliance status</td> </tr> <tr> <td>PICCS</td> <td>Contact supplier for inventory compliance status</td> </tr> <tr> <td>AIIC</td> <td>Contact supplier for inventory compliance status</td> </tr> <tr> <td>NZIoC</td> <td>Contact supplier for inventory compliance status</td> </tr> </table> <p>Legend:</p> <p>TSCA - United States Toxic Substances Control Act Section 8(b) Inventory DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances ENCS - Japan Existing and New Chemical Substances</p>		TSCA	Contact supplier for inventory compliance status	DSL/NDSL	Contact supplier for inventory compliance status	EINECS/ELINCS	Contact supplier for inventory compliance status	ENCS	Contact supplier for inventory compliance status	IECSC	Contact supplier for inventory compliance status	KECL	Contact supplier for inventory compliance status	PICCS	Contact supplier for inventory compliance status	AIIC	Contact supplier for inventory compliance status	NZIoC	Contact supplier for inventory compliance status
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IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

16. Other information

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. SMOBIO shall not be held liable for any damage resulting from handling or from contact with the above product.