

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 06/11/2020 Revision date: : Version: 1.0

NLM-3987-SL

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

1.1. Product identifier

Product form : Mixtures

Product name : ADENOSINE 5'-TRIPHOSPHATE, LITHIUM SALT (U-15N5, 98%) CHEM PURITY >90% (IN

SOLUTION)

Product code : NLM-3987-SL

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

1.2.1. Relevant identified uses

Main use category : Professional use

Industrial/Professional use spec : For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Cambridge Isotope Laboratories, Inc.

50 Frontage Road Andover, MA 01810

USA

USA: 1-800-322-1174 Int: 1-978-749-8000 cilsales@isotope.com www.isotope.com

Emergency telephone number

Emergency numbers:

Chemtrec: 1-800-424-9300 (24 hours) International: 1-703-741-5970 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

GHS-US classification

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

No labeling applicable

GHS-US labeling

No labeling applicable

2.3. Other hazards

No additional information available

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SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Directive 67/548/EEC
WATER UNLABELED	(CAS-No.) 7732-18-5 (EC-No.) 231-791-2	96.878	Not classified
ADENOSINE 5'-DIPHOSPHATE, LITHIUM SALT (U-15N5, 98%) CHEM PUR. >90%	(CAS-No.) 31008-64-7 (Unlabeled) (EC Index-No.)	3.046	Not classified
TRIS HYDROCHLORIDE	(CAS-No.) 1185-53-1 (Unlabeled) (EC-No.) 214-684-5 (Unlabeled)	0.076	Not classified
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
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Full text of R- and H- phrases: see section 16

SECTION 4: First aid measures

TRIS HYDROCHLORIDE

4.1. Description of first aid measures

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

(CAS-No.) 1185-53-1 (Unlabeled)

0.076

Not classified

First-aid measures after inhalation : When symptoms occur: go into open air and ventilate suspected area. If not breathing, give

artificial respiration. Get medical advice/attention.

First-aid measures after skin contact : Wash with plenty of soap and water. Get immediate medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes.

First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get medical advice/attention.

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

Symptoms/effects after inhalation : May be harmful if inhaled. May cause respiratory irritation.

Symptoms/effects after skin contact : May be harmful in contact with skin. May cause moderate irritation.

Symptoms/effects after eye contact : May cause eye irritation.

Symptoms/effects after ingestion : May be harmful if swallowed.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory

protection.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Wear recommended personal protective equipment.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Avoid breathing vapors, mist, gas. Avoid dust formation.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Prevent entry to sewers and public waters. Do not allow to enter drains or water courses. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Dike and contain spill. Clean up any spills as soon as possible, using an absorbent material to

collect it.

Methods for cleaning up : This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Avoid all eye and skin contact and do not breathe vapor and mist. Keep away from sources of

ignition - No smoking.

Precautions for safe handling : Provide adequate ventilation to minimize dust and/or vapor concentrations.

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

Technical measures : Store in a well-ventilated place. Keep container tightly closed.

Storage conditions : Store in freezer (-20°C). Protect from light.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional information : Contains no substances with occupational exposure limits

8.2. Exposure controls

Appropriate engineering controls : Wash hands and other exposed areas with mild soap and water before eating, drinking or

smoking and when leaving work.

Personal protective equipment : Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.



Materials for protective clothing : Wear suitable protective clothing and gloves. Hand protection : Wear suitable protective clothing and gloves.

Eye protection : Wear eye protection. Chemical goggles or face shield with safety glasses.

Skin and body protection : Wear suitable protective clothing, gloves and eye/face protection.

Respiratory protection : In case of inadequate ventilation wear respiratory protection. Approved supplied air respirator.

Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

The properties listed below are for the solvent, the main component of this mixture.

Physical state : Liquid

Appearance : Liquid

Molecular mass : 18.02 g/mol

Color : Colorless

Odor : No data available

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: Water: Completely miscible

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Odor threshold : No data available pH : 6.0 - 8.0 at 25 °C (77 °F)

Relative evaporation rate (butyl acetate=1) : No data available

: 0 °C (32.0 °F) Melting point Freezing point : 0 °C (32.0 °F) : 100 °C (212.0 °F) Boiling point Flash point : No data available : No data available Auto-ignition temperature Decomposition temperature No data available : No data available Flammability (solid, gas) Vapor pressure : No data available

Relative vapor density at 20 °C : No data available

Relative density : No data available

Specific gravity / density : 1 g/ml at 20 °C (68 °F)

Log Pow : No data available
Log Kow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidizing properties : No data available
Explosion limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Solubility

No additional information available

10.2. Chemical stability

Stable if stored under recommended conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO2). Nitrogen oxides. Phosphorus oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Skin corrosion/irritation : pH: 6.0 - 8.0 at 25 °C (77 °F) Serious eye damage/irritation : pH: 6.0 - 8.0 at 25 °C (77 °F)

Respiratory or skin sensitization : Not classified Germ cell mutagenicity : Not classified Carcinogenicity : Not classified Reproductive toxicity : Not classified Specific target organ toxicity – single exposure : Not classified Specific target organ toxicity – repeated : Not classified

exposure

Aspiration hazard : Not classified

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Potential Adverse human health effects and symptoms

Central nervous system depression. Nausea. Headache. Vomiting. Narcosis. Damage to heart. 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.

Symptoms/effects after inhalation

: May be harmful if inhaled. May cause respiratory irritation.

Symptoms/effects after skin contact

: May be harmful in contact with skin. May cause moderate irritation.

Symptoms/effects after eye contact

: May cause eye irritation. : May be harmful if swallowed. Symptoms/effects after ingestion

SECTION 12: Ecological information

Toxicity

Ecology - general

: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

TRIS HYDROCHLORIDE (1185-53-1 (Unlabeled))		
EC50 Daphnia 1	> 100 mg/l Daphnia magna (Water flea) - 48 h	
EC50 other aquatic organisms 1	> 1000 Other microorganisms - 3 h	
ErC50 (algae)	Other microorganisms - 3 h	

12.2. Persistence and degradability

TRIS HYDROCHLORIDE (1185-53-1 (Unlabeled))			
	Persistence and degradability	Biodegradability	Result: - Readily biodegradable.

12.3. **Bioaccumulative potential**

12.4. Mobility in soil

Results of PBT and vPvB assessment

No additional information available

Other adverse effects 12.6.

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)

: Waste materials should be disposed of under conditions which meet Federal, State, and local environmental control regulations.

Product/Packaging disposal recommendations

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

Ecology - waste materials : Dispose of as unused product.

SECTION 14: Transport information

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

UN number

Not applicable

UN proper shipping name

Not applicable

14.3. **Additional information**

Other information

: No supplementary information available.

Special transport precautions

: Not classified as dangerous in the meaning of transport regulations.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

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14.4. Environmental hazards

Other information : No supplementary information available.

14.5. Special precautions for user

Special transport precautions : Not classified as dangerous in the meaning of transport regulations.

14.6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

DENOSINE 5'-TRIPHOSPHATE, LITHIUM SALT (U-15N5, 98%) CHEM PURITY >90% (IN SOLUTION)			
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.		
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.		
WATER UNLABELED (7732-18-5)			
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.		
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.		
ADENOSINE 5'-DIPHOSPHATE, LITHIUM SALT (U-15N5, 98%) CHEM PUR. >90% (31008-64-7 (Unlabeled))			
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.		
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.		

15.2. International regulations

CANADA

ADENOSINE 5'-TRIPHOSPHATE, LITHIUM SALT (U-15N5, 98%) CHEM PURITY >90% (IN SOLUTION)

Not listed on the Canadian DSL (Domestic Substances List)

15.2.1. National regulations

No additional information available

15.3. US State regulations

ADENOSINE 5'-TRIPHOSPHATE, LITHIUM SALT (U-15N5, 98%) CHEM PURITY >90% (IN SOLUTION)()					
U.S California - Proposition	on 65 - Carcinogens List	No			
U.S California - Proposition 65 - Developmental Toxicity		No			
U.S California - Proposition 65 - Reproductive Toxicity - Female		No			
U.S California - Proposition 65 - Reproductive Toxicity - Male		No			
State or local regulations		U.S Pennsylvania - RTK (Right to Know) List U.S New Jersey - Right to Know Hazardous Substance List			
WATER UNLABELED (773	32-18-5)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	
No	No	No	No		
TRIS HYDROCHLORIDE (1185-53-1 (Unlabeled))					
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	
No	No	l No	No		

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U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

WATER UNLABELED (7732-18-5)

State or local regulations

- U.S. Pennsylvania RTK (Right to Know) List
- U.S. New Jersey Right to Know Hazardous Substance List

TRIS HYDROCHLORIDE (1185-53-1 (Unlabeled))

State or local regulations

- U.S. Pennsylvania RTK (Right to Know) List
- U.S. New Jersey Right to Know Hazardous Substance List

ADENOSINE 5'-DIPHOSPHATE, LITHIUM SALT (U-15N5, 98%) CHEM PUR. >90% (31008-64-7 (Unlabeled))

State or local regulations

- U.S. Pennsylvania RTK (Right to Know) List
- U.S. New Jersey Right to Know Hazardous Substance List

SECTION 16: Other information

Other information

: This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

NFPA health hazard

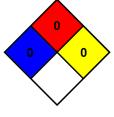
: 0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard

 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health : 0 Minimal Hazard - No significant risk to health

Flammability : 0 Minimal Hazard Physical : 0 Minimal Hazard

CIL Mixture SDS

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

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