

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: 28/10/2016 Revision date: 03/04/2019 Supersedes: 29/06/2018 Version: 1.2 NLM-6215-SL

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		stance/mixture and of the company/undertaking
1.1. Product form	t identifier	: Mixtures
Product name		<ul> <li>2'-DEOXYADENOSINE 5'-TRIPHOSPHATE, LITHIUM SALT (U-15N5, 98%) CHEM PURITY &gt;90% (IN SOLUTION)</li> </ul>
Product code		: NLM-6215-SL
1.2. Releva	nt identified uses of the subs	tance or mixture and uses advised against
1.2.1. Releva	nt identified uses	
Main use catego	y	: Professional use
Industrial/Profess	ional use spec	: For professional use only
	dvised against	
	rmation available	
	of the supplier of the safety	data sheet
Cambridge Isoto 50 Frontage Roa Andover, MA 01 USA		
USA: 1-800-322 cilsales@isotope	1174 Int: 1-978-749-8000 <u>com</u> www.isotope.com	
Emerg	ency telephone number	
Emergency numb	ers:	
	-424-9300 (24 hours) 03-741-5970 (24 hours)	
SECTION 2:	lazards identification	
2.1. Classi	ication of the substance or m	nixture
Classification ad Not classified	cording to Regulation (EC) N	lo. 1272/2008 [CLP]
Classification ad Not classified	cording to Directive 67/548/E	EC [DSD] or 1999/45/EC [DPD]
GHS-US classification Not classified		
Adverse physicochemical, human health and environmental effects No additional information available		
2.2. Label of	lements	
Labeling accord No labeling appli	ing to Regulation (EC) No. 12 able	72/2008 [CLP]
GHS-US labeling	I	

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	97.465	Not classified
2'-DEOXYADENOSINE 5'-TRIPHOSPHATE, LITHIUM SALT (15N5, 96-98%)	(CAS-No.) NA	2.476	Not classified
TRIS UNLABELED	(CAS-No.) 77-86-1 (EC-No.) 201-064-4 (REACH-no) 01-2119957659-16	0.059	Not classified
Name		<b>A</b> (	
INGILIE	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
WATER UNLABELED	(CAS-No.) 7732-18-5 (EC-No.) 231-791-2	97.465	Regulation (EC) No.
	(CAS-No.) 7732-18-5		Regulation (EC) No. 1272/2008 [CLP]

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

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). Evacuate danger area.
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.
4.2. Most important symptoms and ef	fects, 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 medi	cal attention and special treatment needed
No additional information available	
<b>SECTION 5: Firefighting measures</b>	
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.
Other information	: The product itself does not burn.
SECTION 6: Accidental release me	easures
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.
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lers
: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
ons
waters. Do not allow to enter drains or water courses. Avoid release to the environment.
or containment and cleaning up
: Dike and contain spill. Clean up any spills as soon as possible, using an absorbent material to collect it.
: This material and its container must be disposed of in a safe way, and as per local legislation.
ions
on 13.
storage
ndling
Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formatio of vapor.
: Wash Both hands thoroughly after handling.
age, including any incompatibilities
: Keep container tightly closed in a cool, dry and well-ventilated place.
: Store in freezer (-20°C). Protect from light.
: Strong bases. Strong acids.
: Sources of ignition. Direct sunlight.
trols/personal protection
: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
: Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus. Avoid all unnecessary exposure.
: Wear suitable protective clothing and gloves.
<ul> <li>Wear suitable protective clothing and gloves.</li> <li>Wear suitable protective clothing and gloves. Wear protective gloves.</li> </ul>
<ul> <li>Wear suitable protective clothing and gloves. Wear protective gloves.</li> <li>Wear safety glasses with side shields (or goggles) and a face shield. Chemical goggles or</li> </ul>
<ul> <li>Wear suitable protective clothing and gloves. Wear protective gloves.</li> <li>Wear safety glasses with side shields (or goggles) and a face shield. Chemical goggles or safety glasses.</li> </ul>
<ul> <li>Wear suitable protective clothing and gloves. Wear protective gloves.</li> <li>Wear safety glasses with side shields (or goggles) and a face shield. Chemical goggles or safety glasses.</li> <li>Wear suitable protective clothing.</li> <li>Where exposure through inhalation may occur from use, respiratory protection equipment is</li> </ul>
<ul> <li>Wear suitable protective clothing and gloves. Wear protective gloves.</li> <li>Wear safety glasses with side shields (or goggles) and a face shield. Chemical goggles or safety glasses.</li> <li>Wear suitable protective clothing.</li> <li>Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear appropriate mask.</li> </ul>
<ul> <li>Wear suitable protective clothing and gloves. Wear protective gloves.</li> <li>Wear safety glasses with side shields (or goggles) and a face shield. Chemical goggles or safety glasses.</li> <li>Wear suitable protective clothing.</li> <li>Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear appropriate mask.</li> <li>Prevent further leakage or spillage if safe to do so. Do not let product enter drains.</li> <li>Do not eat, drink or smoke during use.</li> </ul>
<ul> <li>Wear suitable protective clothing and gloves. Wear protective gloves.</li> <li>Wear safety glasses with side shields (or goggles) and a face shield. Chemical goggles or safety glasses.</li> <li>Wear suitable protective clothing.</li> <li>Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear appropriate mask.</li> <li>Prevent further leakage or spillage if safe to do so. Do not let product enter drains.</li> <li>Do not eat, drink or smoke during use.</li> </ul>
<ul> <li>Wear suitable protective clothing and gloves. Wear protective gloves.</li> <li>Wear safety glasses with side shields (or goggles) and a face shield. Chemical goggles or safety glasses.</li> <li>Wear suitable protective clothing.</li> <li>Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear appropriate mask.</li> <li>Prevent further leakage or spillage if safe to do so. Do not let product enter drains.</li> <li>Do not eat, drink or smoke during use.</li> </ul>

Physical state	: Liquid
Appearance	: Liquid
Molecular mass	: 18.02 g/mol
Color	: Colorless
Odor	: No data available
Odor threshold	: No data available

### Safety Data Sheet

Respiratory or skin sensitization

Germ cell mutagenicity

Reproductive toxicity

Carcinogenicity

03/04/2019

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рН	: 6.0 - 8.0 at 25 °C (77 °F)
Relative evaporation rate (butyl acetate=1)	No data available
Melting point	: 0 °C (32.0 °F)
Freezing point	No data available
Boiling point	: 100 °C (212.0 °F)
Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	No data available
Vapor pressure	No data available
Relative vapor density at 20 °C	No data available
	No data available
Specific gravity / density	: 1 g/ml at 20 °C (68 °F)
	Water: Completely miscible
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	
No additional information available	
10.2. Chemical stability	
Two years after receipt if stored as stated in "Stora	ige" section. Re-QC after 2 years.
10.3. Possibility of hazardous reactions	
Not established.	
10.4. Conditions to avoid	
Direct sunlight. Extremely high or low temperatures	S.
10.5. Incompatible materials	
Strong acids. Strong bases.	
10.6. Hazardous decomposition products	
fume. Carbon monoxide. Carbon dioxide.	
SECTION 11: Toxicological information	n
11.1. Information on toxicological effects Acute toxicity	Not classified
,	
	THIUM SALT (U-15N5, 98%) CHEM PURITY >90% (IN SOLUTION) > 90000 mg/kg
	> 90000 mg/kg
TRIS UNLABELED (77-86-1)	2000 malla
LD50 oral rat LD50 dermal rat	> 3000 mg/kg > 5000 mg/kg (OECD Test Guideline 402)
	Not classified
	pH: 6.0 - 8.0 at 25 °C (77 °F)
Sorious ava damaga/irritation	pH: 6.0 - 8.0 at 25 $^{\circ}$ C (77 $^{\circ}$ F) Not classified
Serious eye damage/irritation	pH: 6.0 - 8.0 at 25 °C (77 °F)
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: Not available

: Not available

: Not classified

: Not available

EN (English US)

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Specific target organ toxicity – single exposure	: Not classified
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: 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.
Symptoms/effects after ingestion	: May be harmful if swallowed.

SECTION 12: Ecological inform	ation
2.1. Toxicity	
cology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
TRIS UNLABELED (77-86-1)	
EC50 Daphnia 1	> 980 mg/l Daphnia (Water flea) - 48 h
EC50 other aquatic organisms 1	397 mg/l Algae - 72 h
NOEC chronic algae	100 mg/l - 72 h
12.2. Persistence and degradability TRIS UNLABELED (77-86-1)	/
Persistence and degradability	Biodegradability: Result - Readily biodegradable. (OECD Test Guideline 301F).
2'-DEOXYADENOSINE 5'-TRIPHOSPH	IATE, LITHIUM SALT (15N5, 96-98%) (NA)
Persistence and degradability	Not available.

#### 12.3

2.3. Bioaccumulative potential		
TRIS UNLABELED (77-86-1)		
Log Pow	-2.31 at 20 °C (68 °F)	
Bioaccumulative potential No bioaccumulation is to be expected (log Pow <= 4).		
2'-DEOXYADENOSINE 5'-TRIPHOSPHATE, LITHIUM SALT (15N5, 96-98%) (NA)		
Bioaccumulative potential	Not available.	
12.4. Mobility in soil		
2'-DEOXYADENOSINE 5'-TRIPHOSPHATE, LITHIUM SALT (15N5, 96-98%) (NA)		
Ecology - soil Not available.		
12.5. Results of PBT and vPvB assessment		

## No additional information available

12.6. Other adverse effects No additional information available

SECTION 13: Disposal consideration	ns
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.
<b>SECTION 14: Transport information</b>	

In accord	In accordance with ADR / RID / IMDG / IATA / ADN		
14.1.	UN number		
Not appli	cable		
14.2.	UN proper shipping name		
Not appli	cable		

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14.3. Additional information	
Other information	: No supplementary information available.
Special transport precautions	: Not dangerous goods.
Overland transport	
No additional information available	
Transport by sea	
No additional information available	
Air transport	
No additional information available	
14.4. Environmental hazards	
Other information	: No supplementary information available.
14.5. Special precautions for user	
Special transport precautions	: Not dangerous goods.

#### 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		
2'-DEOXYADENOSINE 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.	

#### 15.2. International regulations

#### CANADA

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

Listed on the Canadian DSL (Domestic Substances List)

#### 15.2.1. National regulations

No additional information available

### 15.3. US State regulations

2'-DEOXYADENOSINE 5'-TRIPHOSPHATE, LITHIUM SALT (U-15N5, 98%) CHEM PURITY >90% (IN SOLUTION)()	
U.S California - Proposition 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

### SECTION 16: Other information

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this product are those of the corresponding otherwise. Health and safety data for it are assumed to be similar or identical to the
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even

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