

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: 24/02/2016 Revision date: 11/03/2019 Supersedes: 01/03/2019 Version: 1.2

DLM-9268-CA

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

1.1. Product identifier

Product form : Mixtures

Product name : ADENOSINE 5'-TRIPHOSPHATE, AMMONIUM SALT (2,8-D2, 97%) CHEMICAL PURITY

>90% (IN SOLN)

Product code : DLM-9268-CA

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only

Industrial

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 <u>cilsales@isotope.com</u> 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

Substances

Not applicable

Mixtures

Name	Product identifier	%	Classification according to Directive 67/548/EEC
DEUTERIUM OXIDE (D, 99.9%)	(CAS-No.) 7789-20-0 (EC-No.) 232-148-9	95.04	Not classified
ADENOSINE 5'-TRIPHOSPHATE, AMMONIUM SALT (2,8- D2, 97%)	(CAS-No.) NA	4.96	Not classified
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
DEUTERIUM OXIDE (D, 99.9%)	(CAS-No.) 7789-20-0 (EC-No.) 232-148-9	95.04	Not classified
ADENOSINE 5'-TRIPHOSPHATE, AMMONIUM SALT (2,8- D2, 97%)	(CAS-No.) NA	4.96	Not classified

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

SECTION 4: First aid measures

Description of first aid measures

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

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, and soap. 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.

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.

Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

Extinguishing media

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

Special hazards arising from the substance or mixture

No additional information available

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.

SECTION 6: Accidental release measures

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

: Do not attempt to take action without suitable protective equipment. For further information Protective equipment

refer to section 8: "Exposure controls/personal protection".

Environmental precautions

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

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6.3. Methods and material for containment and cleaning up

For containment

: Clean up any spills as soon as possible, using an absorbent material to collect it. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal.

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

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. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

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

No additional information available

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

Hand protection

Eye protection

Skin and body protection

Respiratory protection

Respiratory protection
Environmental exposure controls

: Wear suitable protective clothing and gloves.

Wear suitable protective clothing and gloves.

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

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

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

: 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 : 20.03 g/mol (Labeled)

Color : Colorless.

Odor : No data available.

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

Melting point : 3.8 °C (38.8 °F) (Labeled)

Freezing point : No data available

Boiling point : 101.4 °C (214.5 °F) (Labeled)

Flash point : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available

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Vapor pressure : No data available
Relative vapor density at 20 °C : No data available
Relative density : No data available

Specific gravity / density : 1.11 g/m³ at 20 °C (68 °F) (Labeled)

Solubility : 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

Five years after receipt if stored as stated in "Storage" section. Re-QC after 5 years.

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).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

: Not classified Acute toxicity Skin corrosion/irritation Not classified Serious eye damage/irritation Not classified : Not classified Respiratory or skin sensitization 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

Potential Adverse human health effects and

Symptoms/effects after inhalation

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.

: 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.

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general

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

12.2. Persistence and degradability

ADENOSINE 5'-TRIPHOSPHATE, AMMONIUM SALT (2,8-D2, 97%) (NA)

Persistence and degradability Not available.

12.3. Bioaccumulative potential

ADENOSINE 5'-TRIPHOSPHATE, AMMONIUM SALT (2,8-D2, 97%) (NA)

Bioaccumulative potential Not available.

12.4. Mobility in soil

ADENOSINE 5'-TRIPHOSPHATE, AMMONIUM SALT (2,8-D2, 97%) (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 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

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

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

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SECTION 15: Regulatory information				
15.1. US Federal regulations				
ADENOSINE 5'-TRIPHOSPHATE, AMMONIUM SALT (2,8-D2, 97%) CHEMICAL PURITY >90% (IN SOLN)				
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

ADE	ENOSINE 5'-TRIPHOSPHATE, AMMONIUM SALT (2,8-D2, 97%) CHEMICAL PURITY >90% (IN SOLN)
Liste	ed on the Canadian DSL (Domestic Substances List)

15.2.1. National regulations

No additional information available

15.3. US State regulations

ADENOSINE 5'-TRIPHOSPHATE, AMMONIUM SALT (2,8-D2, 97%) CHEMICAL PURITY >90% (IN SOLN)()			
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 New Jersey - Right to Know Hazardous Substance List U.S Pennsylvania - RTK (Right to Know) 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.

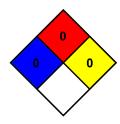
NFPA health hazard : 0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

: 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

NFPA fire hazard

Health : 0 Minimal Hazard - No significant risk to health

Flammability : 0 Minimal Hazard
Physical : 0 Minimal Hazard

CIL Mixture SDS

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