

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: 25/08/2014 NLM-3987-CA Revision date: 13/05/2020

Supersedes: 28/03/2019

Version: 2.2

| SECTION 1: Identification of the Suc 1.1. Product identifier | ostance/mixture and of the company/undertaking |
|---|---|
| Product form | : Mixtures |
| Product name | : ADENOSINE 5'-TRIPHOSPHATE, AMMONIUM SALT (15N5, 98-99%)CHEM PUR. >90% (I SOLN) |
| Product code | : NLM-3987-CA |
| 1.2. Relevant identified uses of the subs | stance 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 n | nixture |
| Classification according to Regulation (EC) N Not classified | No. 1272/2008 [CLP] |
| Classification according to Directive 67/548/8 Not classified | EEC [DSD] or 1999/45/EC [DPD] |
| GHS-US classification | |
| Not classified | |
| Adverse physicochemical, human health and No additional information available | environmental effects |

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 | 94.52 | Not classified |
| ADENOSINE 5'-TRIPHOSPHATE, AMMONIUM SALT (15N5, 98-99%) | (CAS-No.) NA | 5.48 | Not classified |
| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
| WATER UNLABELED | (CAS-No.) 7732-18-5 (EC-No.) 231-791-2 | 94.52 | Not classified |
| ADENOSINE 5'-TRIPHOSPHATE, AMMONIUM SALT (15N5, 98-99%) | (CAS-No.) NA | 5.48 | Not classified |

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 | : Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). | | |
| First-aid measures after inhalation | : If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician. Allow victim to breathe fresh air. Allow the victim to rest. | | |
| First-aid measures after skin contact | : Wash with soap and plenty of water. Consult a physician. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. | | |
| First-aid measures after eye contact | : Flush eyes with water as a precaution. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician. | | |
| First-aid measures after ingestion | : Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. | | |
| 4.2. Most important symptoms and ef | fects, both acute and delayed | | |
| Symptoms/effects after inhalation | : May be harmful if inhaled. Causes respiratory tract irritation. | | |
| Symptoms/effects after skin contact | : May be harmful if absorbed through skin. Causes skin irritation. | | |
| Symptoms/effects after eye contact | : Causes eye irritation. Causes serious eye damage. | | |
| 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 | : Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide. Foam. Dry powder. Carbon dioxide. Water spray. Sand. | | |
| Unsuitable extinguishing media | : Do not use a heavy water stream. | | |
| 5.2. Special hazards arising from the | substance or mixture | | |
| No additional information available | | | |
| 5.3. Advice for firefighters | | | |
| Firefighting instructions | : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. | | |
| 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. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures

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| 6.1.2. For emergency responders | | |
|--|---|--|
| Protective equipment | : Equip cleanup crew with proper protection. | |
| Emergency procedures | : Ventilate area. | |
| 6.2. Environmental precautions | | |
| Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. | | |
| 6.3. Methods and material for containme | ent and cleaning up | |
| Methods for cleaning up | : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. | |
| 6.4. Reference to other sections | | |
| See Heading 8. Exposure controls and personal | protection. | |
| SECTION 7: Handling and storage | | |
| 7.1. Precautions for safe handling | | |
| Precautions for safe handling | : 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 formation of vapor. | |
| Hygiene measures | : Wash Both hands thoroughly after handling. | |
| 7.2. Conditions for safe storage, includi | ng any incompatibilities | |
| Storage conditions | : Store in freezer (-20°C). Protect from light. | |
| Incompatible products | : Strong bases. Strong acids. | |
| Incompatible materials | : Sources of ignition. Direct sunlight. | |
| 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

Personal protective equipment

: Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus. Avoid all unnecessary exposure.



| Hand protection | : Wear suitable protective clothing and gloves. Wear protective gloves. |
|--------------------------|---|
| Eye protection | : Wear safety glasses with side shields (or goggles) and a face shield. Chemical goggles or safety glasses. |
| Skin and body protection | : Wear suitable protective clothing. |
| Respiratory protection | : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear appropriate mask. |
| Other information | : Do not eat, drink or smoke during use. |

| 9.1. Informat | ion on basic physical and ch | emical properties | |
|----------------------------|--|------------------------------|--|
| The properties listed belo | 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 | |
| Odor threshold | | : No data available | |
| рН | | : 6.0 - 8.0 at 25 °C (77 °F) | |
| Relative evaporation | on rate (butyl acetate=1) | : No data available | |
| Melting point | | : 0 °C (32.0 °F) | |
| Freezing point | | : 0 °C (32.0 °F) | |
| | | | |

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| 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 |
| Relative density | : No data available |
| Specific gravity / density | : 1 g/ml at 20 °C (68 °F) |
| 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

| 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 "Sto | prage" section. Re-QC after 5 years. |
| 10.3. Possibility of hazardous reactions | |
| Not established. | |
| 10.4. Conditions to avoid | |
| Direct sunlight. Extremely high or low temperatu | ires. |
| 10.5. Incompatible materials | |
| Strong acids. Strong bases. | |
| 10.6. Hazardous decomposition products | ŝ |
| Fume. Carbon monoxide. Carbon dioxide. | |
| SECTION 11: Toxicological information | tion |
| 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 |
| 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. Causes respiratory tract irritation. |
| Symptoms/effects after skin contact | : May be harmful if absorbed through skin. Causes skin irritation. |
| Symptoms/effects after eye contact | : Causes eye irritation. Causes serious eye damage. |
| Symptoms/effects after ingestion | : May be harmful if swallowed. |
| 13/05/2020 | EN (English US) 4/6 |

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| Ecology | Toxicity | |
|--|--|---|
| cology | - 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 | |
| No addit | ional information available | |
| 12.3. | Bioaccumulative potential | |
| No addit | ional information available | |
| 12.4. | Mobility in soil | |
| No addit | ional information available | |
| 12.5. | Results of PBT and vPvB assessme | nt |
| No addit | ional information available | |
| 12.6. | Other adverse effects | |
| No addit | ional information available | |
| SECTI | ON 13: Disposal consideration | 15 |
| 13.1. | Waste treatment methods | |
| Regional | l legislation (waste) | : Waste materials should be disposed of under conditions which meet Federal, State, and loca environmental control regulations. |
| Product/ | Packaging disposal recommendations | : Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a license professional waste disposal service to dispose of this material. |
| Ecology | - waste materials | : Dispose of as unused product. |
| SECTI | ON 14: Transport information | |
| In accord | dance with ADR / RID / IMDG / IATA / A | DN |
| 14.1. | UN number | |
| Not appl | ICADIE | |
| 14.2. | UN proper shipping name | |
| | | |
| | | |
| 14.3. | Additional information | |
| 14.3. | | : No supplementary information available. |
| | Additional information | No supplementary information available.Not dangerous goods. |
| 1 4.3. Other inf Special t | Additional information | |
| 14.3. Other inf Special t Overlan | Additional information formation transport precautions | |
| 14.3. Other inf Special t Overlan No additi Transpo | Additional information formation transport precautions d transport ional information available ort by sea | |
| 14.3. Other inf Special t Overlan No addit Transpo No addit | Additional information formation transport precautions d transport tional information available ort by sea tional information available | |
| 14.3. Other inf Special t Overlan No addit Transpo No addit Air trans | Additional information formation transport precautions d transport tional information available ort by sea tional information available | |
| 14.3. Other inf Special t Overlan No addit Transpo No addit Air trans No addit | Additional information formation transport precautions d transport tional information available ort by sea tional information available sport | |
| 14.3. Other inf Special t Overlan No addit Transpo No addit Air trans No addit | Additional information formation transport precautions d transport ional information available ort by sea ional information available sport ional information available | |
| 14.3. Other inf Special t Overlan No addit Transpo No addit Air trans No addit | Additional information formation transport precautions d transport ional information available ort by sea ional information available sport ional information available Environmental hazards | : Not dangerous goods. |

Not applicable

ADENOSINE 5'-TRIPHOSPHATE, AMMONIUM SALT (15N5, 98-

99%)CHEM PUR. >90% (IN SOLN) NLM-3987-CA

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| SECTION 15: Regulatory information | | |
|---|--|--|
| 15.1. US Federal regulations | | |
| ADENOSINE 5'-TRIPHOSPHATE, AMMONIUM SALT (15N5, 98-99%)CHEM PUR. >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

ADENOSINE 5'-TRIPHOSPHATE, AMMONIUM SALT (15N5, 98-99%)CHEM PUR. >90% (IN SOLN)

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, AMMONIUM SALT (15N5, 98-99%)CHEM PUR. >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 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