

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: 20/12/2016 Revision date: 16/09/2020

CNLM-4269-CA

Supersedes: 17/06/2019

Version: 3.1

| 1.1. | Product identifier | | |
|--|---|---|--|
| Produc | t form | : Mixtures | |
| Product name | | : GUANOSINE 5'-TRIPHOSPHATE, AMMONIUM SALT (13C10, 99%; 15N5, 98%) CP >90% (I SOLN) | |
| Product code | | : CNLM-4269-CA | |
| 1.2. | Relevant identified uses of the su | ubstance or mixture and uses advised against | |
| 1.2.1. | Relevant identified uses | | |
| Main us | se category | : Professional use | |
| Industri | al/Professional use spec | : For professional use only | |
| 1.2.2. | Uses advised against | | |
| | itional information available | | |
| 1.3. | Details of the supplier of the safe | ety data sheet | |
| 50 Fror Andove USA USA: 1 | dge Isotope Laboratories, Inc. htage Road er, MA 01810 1-800-322-1174 Int: 1-978-749-8000 @isotope.com www.isotope.com | | |
| | <u> </u> | | |
| | Emergency telephone number | | |
| Emera | Emergency telephone number | | |
| - | ency numbers: | | |
| Chemtr | | | |
| Chemtr Interna | ency numbers: rec: 1-800-424-9300 (24 hours) tional: 1-703-741-5970 (24 hours) | n | |
| Chemtr Interna | ency numbers: rec: 1-800-424-9300 (24 hours) | | |
| Chemtr Interna SECT 2.1. | ency numbers: rec: 1-800-424-9300 (24 hours) tional: 1-703-741-5970 (24 hours) TON 2: Hazards identification Classification of the substance o | or mixture | |
| Chemtr Interna SECT 2.1. | ency numbers: rec: 1-800-424-9300 (24 hours) tional: 1-703-741-5970 (24 hours) ION 2: Hazards identification Classification of the substance o fication according to Regulation (EC | or mixture | |
| Chemtr Interna SECT 2.1. Classif Not clas | ency numbers: rec: 1-800-424-9300 (24 hours) tional: 1-703-741-5970 (24 hours) ION 2: Hazards identification Classification of the substance o fication according to Regulation (EC ssified | or mixture C) No. 1272/2008 [CLP] | |
| Chemtr Interna SECT 2.1. Classif Not classif Not classif | ency numbers: rec: 1-800-424-9300 (24 hours) tional: 1-703-741-5970 (24 hours) TON 2: Hazards identification Classification of the substance o fication according to Regulation (EC ssified fication according to Directive 67/54 ssified S classification | or mixture C) No. 1272/2008 [CLP] | |
| Chemtr Interna SECT 2.1. Classif Not cla GHS-U Not cla Advers | ency numbers: rec: 1-800-424-9300 (24 hours) tional: 1-703-741-5970 (24 hours) TON 2: Hazards identification Classification of the substance o fication according to Regulation (EC ssified fication according to Directive 67/54 ssified S classification | or mixture C) No. 1272/2008 [CLP] 48/EEC [DSD] or 1999/45/EC [DPD] | |
| Chemtr Interna SECT 2.1. Classif Not cla GHS-U Not cla Advers | ency numbers: rec: 1-800-424-9300 (24 hours) tional: 1-703-741-5970 (24 hours) ION 2: Hazards identification Classification of the substance o fication according to Regulation (EC ssified fication according to Directive 67/54 ssified S classification ssified se physicochemical, human health a | or mixture C) No. 1272/2008 [CLP] 48/EEC [DSD] or 1999/45/EC [DPD] | |
| Chemtr Interna SECT 2.1. Classif Not clas GHS-U Not clas Advers No add 2.2. Labelir | ency numbers: rec: 1-800-424-9300 (24 hours) tional: 1-703-741-5970 (24 hours) TON 2: Hazards identification Classification of the substance o fication according to Regulation (EC ssified fication according to Directive 67/54 ssified S classification ssified S classification ssified se physicochemical, human health a itional information available | or mixture C) No. 1272/2008 [CLP] 48/EEC [DSD] or 1999/45/EC [DPD] and environmental effects | |

No labeling applicable

2.3. **Other hazards**

No additional information available

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SECTION 3: Composition/Information on ingredients Substances

3.1.

Not applicable 2.2 84:

| Name | Product identifier | % | Classification according to Directive 67/548/EEC |
|---|---|--------|---|
| WATER UNLABELED | (CAS-No.) 7732-18-5 (EC-No.) 231-791-2 | 93.938 | Not classified |
| GUANOSINE 5'-TRIPHOSPHATE (GTP) AMMONIUM SALT | (CAS-No.) NA | 6.062 | Xi; R36/37/38 |
| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
| WATER UNLABELED | (CAS-No.) 7732-18-5 (EC-No.) 231-791-2 | 93.938 | Not classified |
| GUANOSINE 5'-TRIPHOSPHATE (GTP) AMMONIUM SALT | (CAS-No.) NA | 6.062 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 |
| Name | Product identifier | % | GHS-US classification |
| WATER UNLABELED | (CAS-No.) 7732-18-5 | 93.938 | Not classified |
| GUANOSINE 5'-TRIPHOSPHATE (GTP) AMMONIUM SALT | (CAS-No.) NA | 6.062 | Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 |

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. 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. | |
| 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 me | edical attention and special treatment needed | |
| No additional information available | | |
| SECTION 5: Firefighting measure | es | |
| 5.1. Extinguishing media | | |
| Suitable extinguishing media | : Water spray. Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2). | |
| 5.2. Special hazards arising from th | e 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. | |
| SECTION 6: Accidental release measures | | |
| 6.1. Personal precautions, protectiv | /e 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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| 6, 2012 / Rules and Regulations6.1.2. 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 | s. Do not allow to enter drains or water courses. Avoid release to the environment. |
| 6.3. Methods and material for con | tainment 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 o 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 store | age |
| 7.1. Precautions for safe handling | J |
| 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, i | 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 | |
| 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 | : 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 chem | hical properties |
| 9.1. Information on basic physica | |
| The properties listed below are for the solvent, the main | |

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

| Physical state | : Solid |
|---|------------------------------|
| Appearance | : Liquid |
| Molecular mass | : 18.02 g/mol |
| Color | : Colorless |
| Odor | : No data available |
| Odor threshold | : No data available |
| pH | : 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 | : 0 °C (32.0 °F) |
| | |

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| Boiling point | : No data available |
|---------------------------------|------------------------------|
| 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 | | |
|--|---|--|
| 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 | orage" 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 | | |
| No additional information available | | |
| 10.6. Hazardous decomposition products | | |
| No additional information available | | |
| SECTION 11: Toxicological informat | ion | |
| 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 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. | |
| 16/00/2020 | EN (English LIS) | |

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| Ecology - general | : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. |
|---|---|
| 2.2. Persistence and degradability | |
| No additional information available | |
| 12.3. Bioaccumulative potential | |
| No additional information available | |
| 12.4. Mobility in soil | |
| No additional information available | |
| 12.5. Results of PBT and vPvB assessmer | it |
| No additional information available | |
| 12.6. Other adverse effects No additional information available | |
| | |
| SECTION 13: Disposal consideration | |
| 13.1. Waste treatment methods Regional 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. |
| SECTION 14: Transport information | |
| In accordance with ADR / RID / IMDG / IATA / AD |)N |
| 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. |

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| SECTION 15: Regulatory information | | | |
|--|--|--|--|
| 15.1. US Federal regulations | | | |
| GUANOSINE 5'-TRIPHOSPHATE, AMMONIUM SALT (13C10, 99%; 15N5, 98%) CP >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. | | |
| 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. | | |
| GUANOSINE 5'-TRIPHOSPHATE (GTP) AMMONIUM SALT (NA) | | | |
| SARA Section 302 Threshold Planning Quantity (TPQ) | Not subject to reporting requirements of the United States SARA Section 302 | | |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard Delayed (chronic) health hazard | | |
| SARA Section 313 - Emission Reporting | Not subject to reporting requirements of the United States SARA Section 313 | | |

15.2. International regulations

CANADA

GUANOSINE 5'-TRIPHOSPHATE, AMMONIUM SALT (13C10, 99%; 15N5, 98%) CP >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

| GUANOSINE 5'-TRIPHOSPHATE, AMMONIUM SALT (13C10, 99%; 15N5, 98%) CP >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 | | |
| WATER UNLABELED (7732 | 2-18-5) | | | | |
| 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 | | |
| GUANOSINE 5'-TRIPHOSP | HATE (GTP) AMMONIUM | SALT (NA) | | | |
| 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 | 2-18-5) | | | | |
| State or local regulations | | | | | |
| U.S Pennsylvania - RTK (F U.S New Jersey - Right to | | e List | | | |
| GUANOSINE 5'-TRIPHOSP | HATE (GTP) AMMONIUM | SALT (NA) | | | |
| State or local regulations | | | | | |
| U.S New Jersey - Right to | Know Hazardous Substanc | e List | | | |
| | | | | | |

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GUANOSINE 5'-TRIPHOSPHATE (GTP) AMMONIUM SALT (NA)

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.

Full text of R-, H- and EUH-phrases:

| Eye Irrit. 2 | Serious eye damage/eye irritation Category 2 |
|---------------|---|
| Skin Irrit. 2 | Skin corrosion/irritation Category 2 |
| STOT SE 3 | Specific target organ toxicity (single exposure) Category 3 |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |
| H335 | May cause respiratory irritation |
| R36/37/38 | Irritating to eyes, respiratory system and skin |
| Xi | Irritant |

| 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