



Safety Data Sheet

Cat. # RC-272

Puromycin Dihydrochloride

Size: 500 mg





Puromycin, Dihydrochloride

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 07/31/2013

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Version: 7.1

SECTION 1: Identification

1.1. Identification

Product form	: Substance
Substance name	: Puromycin, Dihydrochloride
CAS-No.	: 58-58-2
Product code	: 799A
Formula	: C22H29N7O5.2HCl
Synonyms	: (2S)-2-amino-N-[(2S,4R,5R)-5-(6-dimethylaminopurin-9-yl)-4-hydroxy-2-(hydroxymethyl)oxolan-3-yl]-3-(4-methoxyphenyl)propanamide dihydrochloride / (S)-3'-((2-amino-3-(4-methoxyphenyl)-1-oxopropyl)amino)-3'-deoxy-N,N-dimethyladenosine dihydrochloride / (S)-3'-[[2-amino-3-(4-methoxyphenyl)-1-oxopropyl]amino]-3'-desoxy-N,N-dimethyladenosine dihydrochloride / 3'-(L-alpha-amino-para-methoxyhydrocinnamamido)-3'-deoxy-N,N-dimethyladenosine dihydrochloride / 3'-(L-alpha-amino-p-methoxyhydrocinnamamido)-3'-deoxy-N,N-dimethyladenosine dihydrochloride / adenosine, 3'-((2-amino-3-(4-methoxyphenyl)-1-oxopropyl)amino)-3'-deoxy-N,N-dimethyl-, dihydrochloride, (S)- / adenosine, 3'-(alpha-amino-para-methoxyhydrocinnamamido)-3'-deoxy-N,N-dimethyl-, 2HCl, L- / adenosine, 3'-(alpha-amino-para-methoxyhydrocinnamamido)-3'-deoxy-N,N-dimethyl-, dihydrochloride, L- / adenosine, 3'-(alpha-amino-p-methoxyhydrocinnamamido)-3'-deoxy-N,N-dimethyl-, 2HCl, L- / adenosine, 3'-(alpha-amino-p-methoxyhydrocinnamamido)-3'-deoxy-N,N-dimethyl-, dihydrochloride, L- / adenosine, 3'-[[2-amino-3-(4-methoxyphenyl)-1-oxopropyl]amino]-3'-desoxy-N,N-dimethyl-, dihydrochloride, (S)- / auromycin HCl / CL16,536 / PDH (=puromycin, dihydrochloride) / puromycin, hydrochloride / stylomycin, dihydrochloride / stylomycin, hydrochloride / X 185
BIG No	: 47198

1.2. Recommended use and restrictions on use

Use of the substance/mixture	: Chemical substance for research
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1.3. Supplier

Geno Technology, Inc./ G-Biosciences
9800 Page Avenue
Saint Louis, 63132-1429 - United States
T 800-628-7730 - F 314-991-1504
technical@GBiosciences.com - www.GBiosciences.com

1.4. Emergency telephone number

Emergency number	: Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intl)
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SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (oral) Category 4 H302 Harmful if swallowed

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US)	: Warning
Hazard statements (GHS US)	: H302 - Harmful if swallowed
Precautionary statements (GHS US)	: P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell P330 - Rinse mouth. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

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2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type : Mono-constituent

Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
Puromycin, Dihydrochloride (Main constituent)	(2S)-2-amino-N-[(2S,4R,5R)-5-(6-dimethylaminopurin-9-yl)-4-hydroxy-2-(hydroxymethyl)oxolan-3-yl]-3-(4-methoxyphenyl)propanamide dihydrochloride / (S)-3'-((2-amino-3-(4-methoxyphenyl)-1-oxopropyl)amino)-3'-deoxy-N,N-dimethyladenosine dihydrochloride / (S)-3'-[[2-amino-3-(4-methoxyphenyl)-1-oxopropyl]amino]-3'-desoxy-N,N-dimethyladenosine dihydrochloride / 3'-(L-alpha-amino-para-methoxyhydrocinnamamido)-3'-deoxy-N,N-dimethyladenosine dihydrochloride / 3'-(L-alpha-amino-p-methoxyhydrocinnamamido)-3'-deoxy-N,N-dimethyladenosine dihydrochloride / adenosine, 3'-((2-amino-3-(4-methoxyphenyl)-1-oxopropyl)amino)-3'-deoxy-N,N-dimethyl-, dihydrochloride, (S)- / adenosine, 3'-(alpha-amino-para-methoxyhydrocinnamamido)-3'-deoxy-N,N-dimethyl-, 2HCl, L- / adenosine, 3'-(alpha-amino-para-methoxyhydrocinnamamido)-3'-deoxy-N,N-dimethyl-, dihydrochloride, L- / adenosine, 3'-((alpha-amino-p-methoxyhydrocinnamamido)-3'-deoxy-N,N-dimethyl-, 2HCl, L- / adenosine, 3'-(alpha-amino-p-methoxyhydrocinnamamido)-3'-deoxy-N,N-dimethyl-, dihydrochloride, L- / adenosine, 3'-[[2-amino-3-(4-methoxyphenyl)-1-oxopropyl]amino]-3'-desoxy-N,N-dimethyl-, dihydrochloride, (S)- / auromycin HCl / CL16,536 / PDH (=puromycin, dihydrochloride) / puromycin, hydrochloride / stylomycin, dihydrochloride / stylomycin, hydrochloride / X 185	(CAS-No.) 58-58-2	100	Acute Tox. 4 (Oral), H302

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
First-aid measures after inhalation	: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Rinse with water. Soap may be used. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	: Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth with water. Do not induce vomiting. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital.

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4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms : Harmful if swallowed.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Quick-acting ABC powder extinguisher. Class A foam extinguisher. Water (quick-acting extinguisher, reel). Water. Class A foam.

Unsuitable extinguishing media : Quick-acting BC powder extinguisher. Quick-acting CO2 extinguisher.

5.2. Specific hazards arising from the chemical

No additional information available

5.3. Special protective equipment and precautions for fire-fighters

Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.

Firefighting instructions : Dilute toxic gases with water spray. Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.

Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus.

Emergency procedures : Mark the danger area. Prevent dust cloud formation. No naked flames. Wash contaminated clothes.

Measures in case of dust release : In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows.

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 soil and water pollution. Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

For containment : Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Dam up the solid spill. Knock down/dilute dust cloud with water spray.

Methods for cleaning up : Stop dust cloud by humidifying. Scoop solid spill into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

Other information : Dispose of materials or solid residues at an authorized site.

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 : Avoid raising dust. Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Clean contaminated clothing. Do not discharge the waste into the drain. Keep container tightly closed.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources.

Information on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents.

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Storage area	: Keep container in a well-ventilated place. Meet the legal requirements.
Special rules on packaging	: SPECIAL REQUIREMENTS: closing. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Puromycin, Dihydrochloride (58-58-2)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Gloves

Eye protection:

Safety glasses. In case of dust production: protective goggles

Skin and body protection:

Protective clothing

Respiratory protection:

Dust production: dust mask with filter type P2

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline solid. Powder.
Color	: Off-white
Odor	: No data available
Odor threshold	: No data available
pH	: No data available
Melting point	: 174 °C
Freezing point	: Not applicable
Boiling point	: Not applicable
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: Not applicable
Relative density	: Not applicable
Molecular mass	: 544.5 g/mol
Solubility	: Soluble in water. Soluble in ethanol. Soluble in dimethyl sulfoxide. Water: soluble, Literature
Log Pow	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: 174 °C
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: No data available

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Oxidizing properties : No data available

9.2. Other information

VOC content : 0 %

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

ATE US (oral)	500 mg/kg body weight
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Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

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

Viscosity, kinematic : No data available

Potential Adverse human health effects and symptoms : Harmful if swallowed.

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.

Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).

Ecology - water : Severe water pollutant (surface water). No data available on ecotoxicity.

12.2. Persistence and degradability

Puromycin, Dihydrochloride (58-58-2)	
Persistence and degradability	Biodegradability in water: no data available.

12.3. Bioaccumulative potential

Puromycin, Dihydrochloride (58-58-2)	
Bioaccumulative potential	No bioaccumulation data available.

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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Waste treatment methods.
Product/Packaging disposal recommendations : Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Remove to an incinerator for chlorinated waste materials with energy recovery. Dissolve or mix with a combustible solvent.
Additional information : Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Other information : No supplementary information available.

Transportation of Dangerous Goods

Transport by sea

Not regulated

Air transport

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

Puromycin, Dihydrochloride (58-58-2)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

EU-Regulations

National regulations

No additional information available

15.3. US State regulations

SECTION 16: Other information

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Full text of H-phrases:

H302	Harmful if swallowed
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SDS US (GHS HazCom 2012)

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.