



SIGMA-ALDRICH

Material Safety Data Sheet

Date Printed: 03/30/2004  
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Version 1.50

Section 1 - Product and Company Information

Product Name: Adenosine 5'-diphosphate sodium salt, From Bacterial Source  
Product Number: A2754  
Brand: Sigma Chemical  
Company: Sigma-Aldrich  
Street Address: 3050 Spruce Street  
City, State, Zip, Country: SAINT LOUIS, MO 63103 US  
Technical Phone: 314 771 5765  
Fax: 800 325 5052  
Emergency Phone: 414 273 3850 Ext. 5996

Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313	
ADENOSINE 5' DIPHOSPHATE	20398-34-9	Yes	
Ingredient Name	CAS #	Percent	SARA 313
METHANOL	67-56-1	<= 4.000 %	Yes
ETHYL ALCOHOL, NON-DENATURED, 200 PROOF	64-17-5	<= 4.000 %	No

Formula: C10H15N5O10P2  
Synonyms:

Section 3 - Hazards Identification

Emergency Overview  
Toxic (USA) Harmful (EU).  
Harmful by inhalation, in contact with skin and if swallowed. Harmful: possible risk of irreversible effects through inhalation, in contact with skin, and if swallowed.  
Target organ(s): Eyes. Nerves.

HMS Rating  
Health: 1\* Flammability: 0 Reactivity: 1

NFPA Rating  
Health: 1 Flammability: 0 Reactivity: 1

\*additional chronic hazards present.  
For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure  
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

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Inhalation Exposure  
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Dermal Exposure  
In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

Eye Exposure  
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

Autoignition Temp: N/A  
Extinguishing Media  
Suitable: Water spray, Carbon dioxide, dry chemical powder, or appropriate foam.  
Firefighting  
Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.  
Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

Procedure to be Followed In Case of Leak or Spill  
Evacuate area.  
Procedure(s) of Personal Precaution(s)  
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.  
Methods for Cleaning Up  
Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling  
User Exposure  
Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.  
Storage  
Suitable: Keep tightly closed. Store at -20°C  
Special Requirements  
Hygroscopic.

Section 8 - Exposure Controls / PPE

Engineering Controls  
Safety shower and eye bath. Mechanical exhaust required.  
Personal Protective Equipment  
Respiratory: Government approved respirator.  
Hand: Compatible chemical-resistant gloves.

**Eye**

Chemical safety goggles.

**General Hygiene Measures**

Wash thoroughly after handling.

**Section 9 - Physical/Chemical Properties****Appearance****Physical State**

Solid

**Molecular Weight:** 427.2 AMU

pH	N/A
BP/BP Range	N/A
MP/MP Range	N/A
Freezing Point	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
SG/Density	N/A
Bulk Density	N/A
Odor Threshold	N/A
Volatile%	N/A
VOC Content	N/A
Water Content	N/A
Solvent Content	N/A
Evaporation Rate	N/A
Viscosity	N/A
Partition Coefficient	N/A
Decomposition Temp.	N/A
Flash Point °F	N/A
Flash Point °C	N/A
Explosion Limits	N/A

Flammability	N/A
Autoignition Temp	N/A
Solubility	N/A

N/A = not available

**Section 10 - Stability and Reactivity****Stability**

Stable

Stable.

**Conditions to Avoid**

Protect from moisture.

**Materials to Avoid**

Strong oxidizing agents, Acids, Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Ammonia, Peroxides.

**Hazardous Decomposition Products****Hazardous Decomposition Products**

Carbon monoxide, Carbon dioxide, Nitrogen oxides, Phosphorous oxides.

**Hazardous Polymerization****Hazardous Polymerization**

Will not occur.

**Section 11 - Toxicological Information****Route of Exposure****Skin Contact**

May cause skin irritation.

**Skin Absorption**

Harmful if absorbed through skin.

**Eye Contact**

May cause eye irritation.

**Inhalation**

Harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

**Ingestion**

Harmful if swallowed.

**Target Organ(s) or System(s)**

Kidneys, Nerves, Liver, Eyes, Heart.

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Exposure may cause: Gastrointestinal disturbances, Narcotic effect, May cause convulsions, Weakness, Ingestion can cause: Nausea, headache, and vomiting, Dizziness, Confusion, Unconsciousness. Can cause CNS depression. Methyl alcohol may be fatal or cause blindness if swallowed. Cannot be made non-poisonous.

**RTECS Number:** N/A**Chronic Exposure - Carcinogen**

Result: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

**Section 12 - Ecological Information**

No data available.

**Section 13 - Disposal Considerations****Appropriate Method of Disposal of Substance or Preparation**

Contact a licensed professional waste disposal service to dispose of this material.

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Observe all federal, state, and local environmental regulations.

**Section 14 - Transport Information****DOT****Proper Shipping Name:** None**Non-Hazardous for Transport:** This substance is considered to be non-hazardous for transport.**IATA****Non-Hazardous for Air Transport:** Non-hazardous for air transport.

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## Section 15 - Regulatory Information

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### EU Additional Classification

Symbol of Danger: Xn

#### Indication of Danger

Harmful.

**Risk Statements** R: 20/21/22 68/20/21/22

Harmful by inhalation, in contact with skin and if swallowed. Harmful: possible risk of irreversible effects through inhalation, in contact with skin, and if swallowed.

**Safety Statements** S: 36/37

Wear suitable protective clothing and gloves.

### US Classification and Label Text

#### Indication of Danger

Toxic (USA) Harmful (EU).

#### Risk Statements

Harmful by inhalation, in contact with skin and if swallowed. Harmful: possible risk of irreversible effects through inhalation, in contact with skin, and if swallowed.

#### Safety Statements

Wear suitable protective clothing and gloves.

#### US Statements

Target organ(s): Eyes, Nerves.

### United States Regulatory Information

SARA Listed: Yes

Notes: This product is or contains a component that is subject to SARA313 reporting requirements.

### Canada Regulatory Information

#### WHMIS Classification

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

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## Section 16 - Other Information

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### Disclaimer

For R&D use only. Not for drug, household or other uses.

### Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

