

## Material Safety Data Sheet

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Adenosine 5'-monophosphate  
**Synonyms:** 5'-Adenylic acid  
**Company Identification:** PI Chemicals Ltd.  
Room 512, Building 1  
88 Cailun Road, Zhangjiang Hi-Tech park,  
Pudong New Area, Shanghai 201203, China  
**Telephone Number:** 86-21-58953700  
**Fax Number:** 86-21-58953701

### Section 2 - Product Information

**Catalog Number:** PI-29270  
**CAS Number:** 18422-05-4  
**MDL Number:** MFCD00005750  
**EC Number:** Not available  
**Purity:** 98.0%

### Section 3 - Physical and Chemical Properties

**Physical state:** Solid  
**Color:** White  
**Odor:** Not available  
**Molecular Formula:** C<sub>10</sub>H<sub>16</sub>N<sub>5</sub>O<sub>8</sub>P  
**Molecular Weight:** 365.24  
**Freezing/Melting Point:** 183 deg C  
**Boiling Point:** Not available  
**Flash Point:** Not available  
**Autoignition Temperature:** Not available  
**Refractive Index (nD20):** Not available  
**Density:** Not available  
**Decomposition Temperature:** Not available  
**Solubility:** Not available

### Section 4 - Hazards Identification

**Eye:** Causes eye irritation.

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<b>Skin:</b>	Causes skin irritation. Harmful if absorbed through the skin.
<b>Ingestion:</b>	May cause irritation of the digestive tract. Toxic if swallowed.
<b>Inhalation:</b>	May be harmful if inhaled. Causes respiratory tract irritation.

### **Section 5 - First Aid Measures**

<b>Eye:</b>	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
<b>Skin:</b>	Get medical aid. Flush skin with plenty of water and soap for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops and persists.
<b>Ingestion:</b>	Get medical aid immediately. Wash mouth out with water.
<b>Inhalation:</b>	Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

### **Section 6 - Stability and Reactivity**

<b>Chemical Stability:</b>	Stable under normal temperatures and pressures.
<b>Materials to avoid:</b>	Strong oxidizing agents.
<b>Conditions to Avoid:</b>	Incompatible materials.
<b>Hazardous Decomposition Products:</b>	Carbon monoxide, carbon dioxide, thermal decomposition may produce toxic fumes of phosphorus oxides and /or phosphine.
<b>Hazardous Polymerization:</b>	Has not been reported.

### **Section 7 - Handling and Storage**

<b>Handling:</b>	Avoid breathing dust, vapor, mist, or gas. Keep container tightly closed. Avoid contact with skin and eyes. Wash thoroughly after handling. Mechanical exhaust required.
<b>Storage:</b>	Store at -20 deg C, Store in a tightly closed container.

### **Section 8 - Personal Protection**

<b>Eyes:</b>	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
<b>Skin:</b>	Wear appropriate protective gloves to prevent skin exposure.
<b>Clothing:</b>	Wear appropriate protective clothing to prevent skin exposure.
<b>Respirators:</b>	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

### **Section 9 - Fire and Explosion Hazard Data**

<b>General Information:</b>	As in any fire, wear a self-contained breathing apparatus, MSHA/NIOSH
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(approved or equivalent) and protective clothing to prevent contact with skin and eyes.

**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or appropriate foam.

### ***Section 10 - Accidental Release Measures***

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container.

### ***Section 11 - Toxicological Information***

**RTECS#:** CAS# 18422-05-4: Not available

**LD50/LC50:** RTECS: Not available.

**Carcinogenicity:** Adenosine 5'-monophosphate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

### ***Section 12 - Environmental information***

Not available

### ***Section 13 - Disposal Consideration***

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***

**IATA:** This substance is considered to be non-hazardous for transport.

**IMO:** This substance is considered to be non-hazardous for transport.

**RID/ADR:** This substance is considered to be non-hazardous for transport.

### ***Section 15 - Regulatory Information***

#### ***UNITED STATES REGULATORY INFORMATION***

**SARA LISTED:** No

#### ***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

**WGK (Water Danger/Protection)**

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CAS# 18422-05-4: 3

Canada

CAS# 18422-05-4: Not available

*US Federal*

*TSCA*

CAS# 18422-05-4 is not listed on the TSCA Inventory. It is for research and development use only.

### ***Section 16 - Additional Information***

***MSDS Creation Date:*** March 15, 2006

***Update:*** February 3, 2008

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