

Material Safety Data Sheet

Section 1 - Chemical Product and Company Identification

MSDS Name: Adenosine 5'-diphosphate
Synonyms: 5'-ADP
Company Identification: PI Chemicals Ltd.
Building B, 633 E Shan Road, Pudong New Area
Shanghai 200127, China
Telephone Number: 86-21-58953700
Fax Number: 86-21-58953701

Section 2 - Product Information

Catalog Number: PI-16018
CAS Number: 58-64-0
MDL Number: MFCD00066473
EC Number: 200-392-5
Purity: 95.0%

Section 3 - Physical and Chemical Properties

Physical state: Powder
Color: White
Molecular Formula: $C_{10}H_{15}N_5O_{10}P_2$
Molecular Weight: 427.2
Freezing/Melting Point: Undetermined
Boiling Point: Undetermined
Flash Point: Undetermined
Autoignition Temperature: Undetermined
Refractive Index (n_{D20}): Undetermined
Density: Undetermined
Decomposition Temperature: Undetermined
Solubility: Undetermined

Section 4 - Hazards Identification

Eye: Causes eye irritation.
Skin: Causes skin irritation. Harmful if absorbed through the skin.
Ingestion: May cause irritation of the digestive tract. Toxic if swallowed.
Inhalation: May be harmful if inhaled. Cause respiratory tract irritation.

Section 5 - First Aid Measures

- Eye:* Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
- Skin:* 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.
- Ingestion:* Get medical aid immediately. Wash mouth out with water.
- Inhalation:* 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

- Chemical Stability:* Stable under normal temperatures and pressures.
- Materials to avoid:* oxidizing agents.
- Conditions to Avoid:* Has not been reported.
- Hazardous Decomposition Products:* Carbon oxides, nitrogen oxides, Oxides of phosphorus.
- Hazardous Polymerization:* Has not been reported.

Section 7 - Handling and Storage

- Handling:* Avoid breathing dust, vapor, mist, or gas. Keep container tightly closed. Avoid contact with skin and eyes. Wash thoroughly after handling. Mechanical exhaust required. Keep away from sources of ignition - No smoking.
- Storage:* Store in a dry and well-ventilated place. Store in a tightly closed container. Store at -20°C temperature.

Section 8 - Personal Protection

- Eyes:* 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.
- Skin:* Wear appropriate protective gloves to prevent skin exposure.
- Clothing:* Wear appropriate protective clothing to prevent skin exposure.
- Respirators:* 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

- General Information:* As in any fire, wear a self-contained breathing apparatus, MSHA/NIOSH (approved or equivalent) and protective clothing to prevent contact with skin and eyes.
- Extinguishing Media:* Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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# 58-64-0: AU7467000

LD50/LC50: LD50 Intraperitoneal - mouse - 3,333 mg/kg

Carcinogenicity: Adenosine 5'-diphosphate - 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: Not dangerous goods.

IMO: Not dangerous goods.

RID/ADR: Not dangerous goods.

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Signal word: Xi

Hazard statement(s).

H302 Harmful if swallowed.

Risk Phrases:

R 22: Harmful if swallowed.

Safety Phrases:

S 36/37: Wear suitable protective clothing and gloves.

WGK (Water Danger/Protection)

CAS# 58-64-0: 3

Canada

CAS# 58-64-0: Not available

US Federal

TSCA

CAS# 58-64-0 is not listed on the TSCA Inventory. It is for research and development use only.

Section 16 - Additional Information

MSDS Creation Date: May 31, 2007

Update: Apr 16, 2012

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