

## Material Safety Data Sheet

### Section 1 - Chemical Product and Company Identification

<b>MSDS Name:</b>	(6R-trans)-7-amino-8-oxo-3-[[[(1,2,5,6-tetrahydro-2-methyl-5,6-dioxo-1,2,4-triazin-3-yl)thio]methyl]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid
<b>Synonyms:</b>	7-ACT
<b>Company Identification:</b>	PI Chemicals Ltd. Building B, 633 E Shan Road, Pudong New Area Shanghai 200127, China
<b>Telephone Number:</b>	86-21-58953700
<b>Fax Number:</b>	86-21-58953701

### Section 2 - Product Information

<b>Catalog Number:</b>	PI-35186
<b>CAS Number:</b>	58909-56-1
<b>MDL Number:</b>	Not available
<b>Purity:</b>	98%

### Section 3 - Physical and Chemical Properties

<b>Physical state:</b>	Powder
<b>Color:</b>	White or light yellow
<b>Molecular Formula:</b>	C <sub>12</sub> H <sub>13</sub> N <sub>5</sub> O <sub>5</sub> S <sub>2</sub>
<b>Molecular Weight:</b>	371.39
<b>Freezing/Melting Point:</b>	Undetermined
<b>Boiling Point:</b>	Undetermined
<b>Flash Point:</b>	Undetermined
<b>Autoignition Temperature:</b>	Undetermined
<b>Refractive Index (nD20):</b>	Undetermined
<b>Density:</b>	Undetermined
<b>Decomposition Temperature:</b>	Undetermined
<b>Solubility:</b>	Undetermined

### Section 4 - Hazards Identification

<b>Eye:</b>	Causes eye irritation.
<b>Skin:</b>	Causes skin irritation. Harmful if absorbed through the skin.
<b>Ingestion:</b>	May be harmful if swallowed.

**Inhalation:** May be harmful if inhaled. Causes 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:** Strong oxidizing agents.

**Hazardous Decomposition Products:** Carbon oxides , nitrogen oxides(Nox), sulphur oxides.

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

**Handling:** Avoid breathing dust, vapor, mist, or gas. Avoid all direct contact with material. Wash thoroughly after handling. Have safety shower and eye wash available. Do not get in eyes, on skin, on clothing.

**Storage:** Keep container tightly closed in a dry and well-ventilated place.

### **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, 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# 58909-56-1: None listed.  
**LD50/L 50:** RTECS#: None listed.  
**Carcinogenicity:** (6R-trans)-7-amino-8-oxo-3-[[[(1,2,5,6-tetrahydro-2-methyl-5,6-dioxo-1,2,4-triazin-3-yl)thio]methyl]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid - Not listed as a carcinogen by ACGIH, IARC, NTP, or OSHA.

### ***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 available.  
**IMO:** Not available.  
**RID/ADR:** Not available.

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

#### ***European/International Regulations***

European Labeling in Accordance with EC Directives

Hazard Symbols: Xi

Indication of Danger: Irritant

Risk Phrases:

R22: Harmful if swallowed.

R 36/37/38: Irritating to eyes, respiratory system and skin.

Safety Phrases:

S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

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

**MSDS Creation Date:** 28 March, 2011

**Update:** 9 November, 2011

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