

## Material Safety Data Sheet

### Section 1 - Chemical Product and Company Identification

*MSDS Name:* Guanosine 5'-triphosphate Disodium  
*Synonyms:* GTP  
*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-16015  
*CAS Number:* 56001-37-7  
*MDL Number:* MFCD00083629  
*Purity:* 95%

### Section 3 - Physical and Chemical Properties

*Physical state:* Powder or crystal  
*Color:* White  
*Molecular Formula:*  $C_{10}H_{16}N_5O_{14}P_3 \cdot 2Na$   
*Molecular Weight:* 569.18  
*Freezing/Melting Point:* Not available  
*Boiling Point:* Not available  
*Flash Point:* Not available  
*Autoignition Temperature:* Not available  
*Refractive Index (n<sub>D20</sub>):* Not available  
*Density:* Not available  
*Decomposition Temperature:* Not available  
*Solubility:* Not available

### Section 4 - Hazards Identification

*Eye:* Causes eye irritation.  
*Skin:* May be harmful if absorbed through skin. Causes skin irritation.  
*Ingestion:* May be harmful if swallowed.  
*Inhalation:* May be harmful if inhaled. Causes respiratory tract irritation.

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

<i>General advice:</i>	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
<i>If inhaled:</i>	If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.
<i>In case of skin contact:</i>	Wash off with soap and plenty of water. Consult a physician.
<i>In case of eye contact:</i>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
<i>If swallowed:</i>	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

<i>Chemical Stability:</i>	Stable under recommended storage conditions.
<i>Hazardous Decomposition Products:</i>	Carbon oxides, nitrogen oxides (NO <sub>x</sub> ).
<i>Hazardous Polymerization:</i>	Has not been reported.

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

<i>Handling:</i>	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.
<i>Storage:</i>	Keep container tightly closed in a dry and well-ventilated place.

## **Section 8 - Personal Protection**

<i>Eyes:</i>	Wear appropriate protective eyeglasses.
<i>Skin:</i>	Wear appropriate protective gloves to prevent skin exposure.
<i>Clothing:</i>	Wear appropriate protective clothing to prevent skin exposure.
<i>Respirators:</i>	Use an approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

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

<i>General Information:</i>	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.
<i>Extinguishing Media:</i>	Use water spray, dry chemical, carbon dioxide, or appropriate foam.

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

<i>General Information:</i>	Use proper personal protective equipment as indicated in Section 8.
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*Spills/Leaks:* Vacuum or sweep up material and place into a suitable disposal container.

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

*RTECS#:* CAS# 56001-37-7: Not available.

*LD50/LC50:* RTECS # Not available.

*Carcinogenicity:* Guanosine 5'-triphosphate Disodium -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***

Hazard Symbols: Xi

Indication of Danger: Irritant

Risk Phrases:

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 27: Take off immediately all contaminated clothing.

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

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

*MSDS Creation Date:* 17 November, 2008

*Update:* 7 July, 2011

*The above information is believed to be accurate and represents the best knowledge available to us currently. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall PI Chemicals, be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, even if PI Chemicals has been advised of the possibility of such damages.*