

# Material Safety Data Sheet



**HEXAMETHYL PHOSPHORIC ACID  
TRIAMIDE(HMPA)** Puriss for synthesis

VERSION : 02  
DATE OF ISSUE : 26-08-2019  
SUPERSEDES : 01

Product Code : 52800

Page 1 of 9

## **1. Identification of the substance/mixture and of the company/undertaking**

### **1.1. Product identifier**

**Trade name :** HEXAMETHYL PHOSPHORIC ACID TRIAMIDE(HMPA) Puriss for synthesis

**Product code :** 52800

**Identification of the product :** Hexamethyl Phosphoric Acid Triamide(HMPA)

CAS No : 680-31-9

### **1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Use :** Industrial. For professional use only.

### **1.3. Details of the supplier of the safety data sheet**

**Company identification :** MOLYCHEM

Office: 78/80 Babu Genu Road, Souri Bldg., 2<sup>nd</sup> Floor, Mumbai – 400 002 (INDIA) Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442.

Email : [info@molychem.net](mailto:info@molychem.net)

Works: Plot No. B/9, Badlapur M.I.D.C., OPP.Shobhavat Textile Co.,  
Kulgaon, Badlapur (E), Dist.-Thane-421 503

### **1.4. Emergency telephone number**

Emergency number : +91 22 4066 8111 (10:00am - 6:00 pm).

## **2. Hazards identification**

### **2.1. Classification of the substance or mixture**

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Germ cell mutagenicity, H340

Category 1B

Carcinogenicity, H350

Category 1A

**Classification according to Directive 67/548/EEC or 1999/45/EC**

**Adverse physicochemical, human health and environmental effects**

No additional information available

### **2.2. Label elements**

**Labelling according to Regulation (EC) No. 1272/2008 [CLP] Extra labelling to display**  
**Extra classification(s) to display**

**Symbol(s) :** T : Very toxic



**R Phrase(s) :** R45: May cause cancer.

R46: May Cause heritable genetic damage.

**S Phrase(s) :** S53: Avoid exposure – obtain special instruction before use.

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Page 2 of 9

S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## Hazard pictograms



Signal word : Danger

Hazard statements : H340 - May cause genetic defects

H350 - May cause cancer

Precautionary statements : P201 - Obtain special instructions before use

P308+P313 - IF exposed or concerned: Get medical advice/attention

## 2.3. Other hazards

No additional information available

## 3. Composition/information on ingredients

3.1. Substance : HEXAMETHYLPHOSPHORIC ACID TRIAMIDE (HMPA)

CAS No : 680-31-9

Substance.

Contains no other components or impurities which will influence the classification of the product.

## 4. First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation : Get medical advice/attention. Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash with plenty of soap and water.

First-aid measures after eye contact : Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion : Rinse mouth. Get medical advice/attention.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : May cause genetic defects. May cause cancer.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## 5. Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Foam. Dry powder. Carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

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Page 3 of 9

No additional information available

## **5.3. Advice for firefighters**

Protection during firefighting : Do not attempt to take action without suitable protective equipment.

## **6. Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

#### **6.1.1. For non-emergency personnel**

Emergency procedures : Evacuate unnecessary personnel.

#### **6.1.2. For emergency responders**

Protective equipment : Use personal protective equipment as required.

Emergency procedures : Ventilate area.

### **6.2. Environmental precautions**

Avoid release to the environment.

### **6.3. Methods and material for containment and cleaning up**

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. On land, sweep or shovel into suitable containers. Collect spillage.

### **6.4. Reference to other sections**

No additional information available

## **7. Handling and storage**

### **7.1. Precautions for safe handling**

Precautions for safe handling : Avoid contact with skin and eyes. Do not breathe vapours. Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### **7.2. Conditions for safe storage, including any incompatibilities**

Storage conditions : Store in a well-ventilated place. Keep container tightly closed.

### **7.3. Specific end use(s)**

No additional information available

## **8. Exposure controls/personal protection**

### **8.1. Control parameters**

No additional information available

### **8.2. Exposure controls**

Hand protection : protective gloves

Eye protection : Chemical goggles or safety glasses

Skin and body protection : Wear suitable protective clothing

Respiratory protection : Wear respiratory protection

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Page 4 of 9

## **9. Physical and chemical properties**

### **9.1. Information on basic physical and chemical properties**

**Odour threshold** : No data available

**pH** : No data available

**Relative evaporation rate (butylacetate=1)** : No data available

**Melting point** : No data available

**Freezing point** : No data available

**Boiling point** : No data available

**Flash point** : No data available

**Auto-ignition temperature** : No data available

**Decomposition temperature** : No data available

**Flammability (solid, gas)** : No data available

**Vapour pressure** : No data available

**Relative vapour density at 20 °C** : No data available

**Relative density** : No data available

**Solubility** : No data available

**Log Pow** : No data available

**Viscosity, kinematic** : No data available

**Viscosity, dynamic** : No data available

**Explosive properties** : No data available

**Oxidising properties** : No data available

**Explosive limits** : No data available

### **9.2. Other information**

No additional information available

## **10. Stability and reactivity**

### **10.1. Reactivity**

No additional information available

### **10.2. Chemical stability**

No additional information available

### **10.3. Possibility of hazardous reactions**

No additional information available

### **10.4. Conditions to avoid**

Direct sunlight. Extremely high or low temperatures.

### **10.5. Incompatible materials**

No additional information available

### **10.6. Hazardous decomposition products**

No additional information available

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Page 5 of 9

## **11. Toxicological information**

### **11.1. Information on toxicological effects**

Acute toxicity : Not classified  
Skin corrosion/irritation : Not classified  
Serious eye damage/irritation : Not classified  
Respiratory or skin sensitisation : Not classified  
Germ cell mutagenicity : May cause genetic defects.  
Carcinogenicity : May cause cancer.  
Reproductive toxicity : Not classified  
Specific target organ toxicity (single exposure) : Not classified  
Specific target organ toxicity (repeated exposure) : Not classified  
Aspiration hazard : Not classified

## **12. Ecological information**

### **12.1. Toxicity**

No additional information available

### **12.2. Persistence and degradability**

No additional information available

### **12.3. Bioaccumulative potential**

No additional information available

### **12.4. Mobility in soil**

No additional information available

### **12.5. Results of PBT and vPvB assessment**

No additional information available

### **12.6. Other adverse effects**

No additional information available

## **13. Disposal considerations**

### **13.1. Waste treatment methods**

No additional information available

## **14. Transport information**

In accordance with ADR / RID / IMDG / IATA / ADN

### **14.1. UN number**

UN-No. (ADR) : 3082

UN-No. (IMDG) : 3082

UN-No.(IATA) : 3082

UN-No.(ADN) : Not regulated

UN-No. (RID) : Not regulated

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**Page 6 of 9**

## 14.2. UN proper shipping name

Proper Shipping Name (ADR) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Proper Shipping Name (IATA) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Proper Shipping Name (ADN) : Not regulated

Proper Shipping Name (RID) : Not regulated

Transport document description (ADR) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III, (E)

Transport document description (IMDG) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III

Transport document description (IATA) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III

## 14.3. Transport hazard class(es)

**ADR-** Transport hazard class(es) (ADR) : 9

Danger labels (ADR) : 9

**IMDG-** Transport hazard class(es) (IMDG) : 9

Danger labels (IMDG) : 9

**IATA-** Transport hazard class(es) (IATA) : 9

Hazard labels (IATA) : 9

**ADN-** Transport hazard class(es) (ADN) : Not regulated

**RID-** Transport hazard class(es) (RID) : Not regulated

## 14.4. Packing group

Packing group (ADR) : III

Packing group (IMDG) : III

Packing group (IATA) : III

Packing group (ADN) : Not regulated

Packing group (RID) : Not regulated

## 14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

## 14.6. Special precautions for user

**Overland transport-** Classification code (ADR) : M6

Special provision (ADR) : 274, 335, 601, 375

Limited quantities (ADR) : 5L

Excepted quantities (ADR) : E1

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**Page 7 of 9**

Packing instructions (ADR) : P001, IBC03, LP01, R001  
Special packing provisions (ADR) : PP1  
Mixed packing provisions (ADR) : MP19  
Portable tank and bulk container instructions (ADR) : T4  
Portable tank and bulk container special provisions (ADR) : TP1, TP29  
Tank code (ADR) : LGBV  
Vehicle for tank carriage : AT  
Transport category (ADR) : 3  
Special provisions for carriage – Packages (ADR) : V12  
Special provisions for carriage - Loading, unloading and handling (ADR) : CV13  
Hazard identification number (Kemler No.) : 90  
Orange plates :  
Tunnel restriction code (ADR) : E  
EAC code : •3Z  
**Transport by sea-** Special provision (IMDG) : 274, 335, 969  
Limited quantities (IMDG) : 5 L  
Excepted quantities (IMDG) : E1  
Packing instructions (IMDG) : P001, LP01  
Packing provisions (IMDG) : PP1  
IBC packing instructions (IMDG) : IBC03  
Tank instructions (IMDG) : T4  
Tank special provisions (IMDG) : TP2, TP29  
EmS-No. (Fire) : F-A  
EmS-No. (Spillage) : S-F  
Stowage category (IMDG) : A  
**Air transport-** PCA Excepted quantities (IATA) : E1  
PCA Limited quantities (IATA) : Y964  
PCA limited quantity max net quantity (IATA) : 30kgG  
PCA packing instructions (IATA) : 964  
PCA max net quantity (IATA) : 450L  
CAO packing instructions (IATA) : 964  
CAO max net quantity (IATA) : 450L  
Special provision (IATA) : A97, A158, A197  
ERG code (IATA) : 9L  
**Inland waterway transport-** Not regulated  
**Rail transport-** Not regulated  
**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
Not applicable



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**Page 8 of 9**

## **15. Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

### **15.1.1. EU-Regulations**

No REACH Annex XVII restrictions

HEXAMETHYLPHOSPHORIC ACID TRIAMIDE is not on the REACH Candidate List

HEXAMETHYLPHOSPHORIC ACID TRIAMIDE is not on the REACH Annex XIV List

### **15.1.2. National regulations**

#### **Germany**

12th Ordinance Implementing the Federal

Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

#### **Denmark**

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

Pregnant/breastfeeding women working with the product must not be in direct contact with the product

The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

### **15.2. Chemical safety assessment**

No additional information available

## **16. Other information**

**Abbreviations and acronyms** : PBT: persistent, bioaccumulative and toxic.

vPvB: very persistent and very bioaccumulative

**Sources of key data used** : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

**Further information** : None.

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008 **DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. .

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**Page 9 of 9**

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

## End of document

**Prepared by: MOLYCHEM (INDIA)**

**For questions contact: MOLYCHEM**

**Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA)**

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