

# HEXAMETHYLPHOSPHORIC ACID TRIAMIDE MSDS

CAS No: 680-31-9 MSDS



## MATERIAL SAFETY DATA SHEET (MSDS)

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Substance  
:  
EC no : 211-653-8  
CAS No : 680-31-9  
Product code : B-01344  
Formula : C6H18N3OP  
Synonyms : HMPA

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

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : Industrial. For professional use only

##### 1.2.2. Uses advised against

No additional information available

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

Bio-Chem Chemicals  
5455, Nicholson Road Science Market,  
Ambala Cantt. 133001 Haryana (India)  
+91-82952 41953  
[info@biofinechemical.com](mailto:info@biofinechemical.com) - [www.biofinechemical.com](http://www.biofinechemical.com)

#### 1.4. Emergency telephone number

Emergency number : +91 99921 51495 (10.00am - 06.30pm) (Office Hours)

### SECTION 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, Category H350

1A

Full text of classification categories and H statements : see section 16

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

Carc.Cat.1; R45

Muta.Cat.1; R46

Full text of R-phrases: see section 16

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### Adverse physicochemical, human health and environmental effects

No additional information available

### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS08

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H340 - May cause genetic defects

H350 - May cause cancer

Precautionary statements (CLP) :

P201 - Obtain special instructions before use

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

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Name :

HEXAMETHYLPHOSPHORIC ACID TRIAMIDE

CAS No :

680-31-9

EC no :

211-653-8

Full text of R- and H-phrases: see section 16

### 3.2. Mixture

Not applicable

## SECTION 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.

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

No additional information available

## SECTION 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

No additional information available

### 5.3. Advice for firefighters

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

## SECTION 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

## SECTION 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

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

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### 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        |

## SECTION 9: Physical and chemical properties

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

|  |                              |
|--|------------------------------|
| Physical state                             | : Liquid                     |
| Colour                                     | : colorless to light yellow. |
| Odour                                      | : No data available          |
| 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

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

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### 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

## SECTION 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

## SECTION 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

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### 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

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

No additional information available

## SECTION 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 |

### 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 |



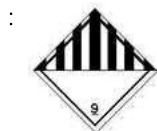
#### IMDG

|                                   |     |
|-----------------------------------|-----|
| Transport hazard class(es) (IMDG) | : 9 |
| Danger labels (IMDG)              | : 9 |

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### 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  
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

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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

## SECTION 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



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### 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

### SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

|          |                                     |
|----------|-------------------------------------|
| Carc. 1A | Carcinogenicity, Category 1A        |
| Muta. 1B | Germ cell mutagenicity, Category 1B |
| H340     | May cause genetic defects           |
| H350     | May cause cancer                    |
| R45      | May cause cancer                    |
| R46      | May cause heritable genetic damage  |

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*