

## SAFETY DATA SHEET

Revision Date 08/04/2023

### 1. PRODUCT AND COMPANY IDENTIFICATION

- 1.1 Product identifiers**  
 Product name : BOP Reagent  
 Product Number : RC8105  
 Brand : Advanced ChemTech  
 CAS-No. : 56602-33-6
- 1.2 Relevant identified uses of the substance or mixture and uses advised against**  
 Identified uses : Laboratory chemicals, Manufacture of substances
- 1.3 Details of the supplier of the safety data sheet**  
 Company : Advanced ChemTech  
 5609 Fern Valley Rd, Louisville, KY 40228 USA  
 Telephone : +1 833-317-5620  
 Fax : +1 502-968-1000
- 1.4 Emergency telephone number** : +1 800-424-9300 Chemtrec

### 2. HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture:**  
**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**  
 Flammable solids (Category 1), H228  
 Skin irritation (Category 2), H315  
 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335  
 For the full text of the H-Statements mentioned in this Section, see Section 16.

- 2.2 GHS Label elements, including precautionary statements:**

Pictogram



Signal Word:

Warning

**Hazard statement(s)**

H228

Flammable solid.

H315

Causes skin irritation.

H335

May cause respiratory irritation.

**Precautionary statement(s)**

P210

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P240

Ground/bond container and receiving equipment.

P241

Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P261

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264

Wash skin thoroughly after handling.

P271

Use only outdoors or in a well-ventilated area

P280

Wear protective gloves/ protective clothing/ eye protection/ face protection.

P302 + P352

IF ON SKIN: Wash with plenty of soap and water.

P304 + P340

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312

Call a POISON CENTER or doctor/ physician if you feel unwell.

P321

Specific treatment (see supplemental first aid instructions on this label).

P332 + P313

If skin irritation occurs: Get medical advice/ attention.

P362

Take off contaminated clothing and wash before reuse.

P370 + P378

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

P403 + P233

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

P405

Store locked up.

P501

Dispose of contents/ container to an approved waste disposal plant.

- 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS – none**

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 Substances**

Formula : C<sub>12</sub>H<sub>22</sub>F<sub>6</sub>N<sub>6</sub>OP<sub>2</sub>

Molecular Weight : 442.29g/mole

CAS-No. : 56602-33-6

**Hazardous Components**

Component	Classification	Concentration
Tri(dimethylamino)benzotriazol-1-yloxyphosphonium hexafluorophosphate	Flam. Sol. 1; Skin Irrit. 2; STOT SE 3; H228, H315, H335	-

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 4. FIRST AID MEASURES

**4.1 Description of first aid measures**

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact:** Flush eyes with water as a precaution.

**If swallowed:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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- 4.2 Most important symptoms and effects, both acute and delayed:** The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11
- 4.3 Indication of any immediate medical attention and special treatment needed:** No data available

### 5. FIREFIGHTING MEASURES

- 5.1 Extinguishing media**  
**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- 5.2 Special hazards arising from the substance or mixture:** Carbon oxides, nitrogen oxides (NOx), Oxides of phosphorus, Hydrogen fluoride
- 5.3 Advice for firefighters:** Wear self contained breathing apparatus for fire fighting if necessary.
- 5.4 Further information:** Use water spray to cool unopened containers.

### 6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal Precautions, protective equipment, and emergency procedure:** Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8
- 6.2 Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
- 6.3 Methods and materials for containment and cleaning up:** Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wetbrushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).
- 6.4 Reference to other sections:** For disposal see section 13.

### 7. HANDLING AND STORAGE

- 7.1 Precautions for safe handling:** Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.
- 7.2 Conditions for safe storage, including any incompatibilities:** Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: 2 - 8 °C Keep in a dry place.
- 7.3 Specific end use(s):** Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Control parameters**  
**Components with workplace control parameters** Contains no substances with occupational exposure limit values.
- 8.2 Exposure controls**  
**Appropriate engineering controls** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.  
**Personal protective equipment**  
**Eye/face protection** Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).  
**Skin protection** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.  
**Body Protection** impervious clothing, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.  
**Respiratory protection** Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).  
**Control of environmental exposure** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Information on basic physical and chemical properties**
- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>a) Appearance</li> <li>b) Odor</li> <li>c) Odor Threshold</li> <li>d) pH</li> <li>e) Melting point/freezing point</li> <li>f) Initial boiling point and boiling range</li> <li>g) Flash point</li> <li>h) Evaporation rate</li> <li>i) Flammability (solid, gas)</li> <li>j) Upper/lower flammability or explosive limits</li> <li>k) Vapor pressure</li> <li>l) Vapor density</li> <li>m) Relative density</li> <li>n) Water solubility</li> <li>o) Partition coefficient: n- octanol/water</li> <li>p) Auto-ignition temperature</li> <li>q) Decomposition temperature</li> <li>r) Viscosity</li> <li>s) Explosive properties</li> <li>t) Oxidizing properties</li> </ul> | <ul style="list-style-type: none"> <li>Form: White to Off-White powder</li> <li>no data available</li> <li>no data available</li> <li>no data available</li> <li>Melting point/range: &gt; 130 °C (&gt; 266 °F) - dec.</li> <li>no data available</li> <li>no data available</li> <li>no data available</li> <li>The substance or mixture is a flammable solid with the category 1.</li> <li>no data available</li> <li>no data available</li> <li>no data available</li> <li>no data available</li> <li>no data available</li> <li>no data available</li> <li>no data available</li> <li>no data available</li> <li>no data available</li> <li>no data available</li> <li>no data available</li> <li>no data available</li> <li>no data available</li> <li>no data available</li> <li>no data available</li> <li>no data available</li> </ul> |
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- 9.2 Other safety information:** no data available

### 10. STABILITY AND REACTIVITY

- 10.1 Reactivity:** No data available
- 10.2 Chemical stability:** Stable under recommended storage conditions.

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- 10.3 Possibility of hazardous reactions:** No data available  
**10.4 Conditions to avoid:** Heat, flames and sparks. Extremes of temperature and direct sunlight.  
**10.5 Incompatible materials:** Strong oxidizing agents  
**10.6 Hazardous decomposition products:** Other decomposition products - no data available. In the event of fire: see section 5

### 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

**Acute toxicity:** No data available  
**Inhalation:** No data available  
**Dermal:** No data available  
**Skin corrosion/irritation:** No data available  
**Serious eye damage/eye irritation:** No data available  
**Respiratory or skin sensitization:** No data available  
**Germ cell mutagenicity:** No data available  
**Carcinogenicity:**  
 IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
 ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.  
 NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.  
 OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.  
**Reproductive toxicity:** No data available  
**Specific target organ toxicity - single exposure:** Inhalation - May cause respiratory irritation  
**Specific target organ toxicity - repeated exposure:** No data available  
**Aspiration hazard:** No data available  
**Additional Information:** RTECS: Not available  
 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### 12. ECOLOGICAL INFORMATION

- 12.1 Toxicity:** No data available  
**12.2 Persistence and degradability:** No data available  
**12.3 Bioaccumulative potential:** No data available  
**12.4 Mobility in soil:** No data available  
**12.5 Results of PBT and vPvB assessment:** PBT/vPvB assessment not available as chemical safety assessment not required/not conducted  
**12.6 Other adverse effects:** No data available

### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

**Product:** Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.  
**Contaminated packaging:** Dispose of as unused product.

### 14. TRANSPORT INFORMATION

#### DOT (US)

UN number: 1325                      Class: 4.1                      Packing group: II  
 Proper shipping name: Flammable solids, organic, n.o.s. (Tri(dimethylamino)benzotriazol-1-yloxyphosphonium hexafluorophosphate)  
 Reportable Quantity (RQ):  
 Marine pollutant: No  
 Poison Inhalation Hazard: No

#### IMDG

UN number: 1325                      Class: 4.1                      Packing group: II                      EMS-No: F-A, S-G  
 Proper shipping name: FLAMMABLE SOLID, ORGANIC, N.O.S. (Tri(dimethylamino)benzotriazol-1-yloxyphosphonium hexafluorophosphate)  
 Marine pollutant: No

#### IATA

UN number: 1325                      Class: 4.1                      Packing group: II  
 Proper shipping name: Flammable solid, organic, n.o.s. (Tri(dimethylamino)benzotriazol-1-yloxyphosphonium hexafluorophosphate)

### 15. REGULATORY INFORMATION

#### SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

#### SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### SARA 311/312 Hazards: Fire Hazard, Acute Health Hazard

**Massachusetts Right to Know Components:** No components are subject to the Massachusetts Right to Know Act.

#### Pennsylvania Right to Know Components

BOP Reagent	CAS-No.	Revision Date
	56602-33-6	

#### New Jersey Right to Know Components

BOP Reagent	CAS-No.	Revision Date
	56602-33-6	

#### California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**SAFETY DATA SHEET****16. OTHER INFORMATION****Full text of H-Statements referred to under sections 2 and 3.**

Flam. Sol.	Flammable solids
H228	Flammable solid.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
Skin Irrit.	Skin irritation
STOT SE	Specific target organ toxicity - single exposure

**HMIS Rating**

Health hazard: 2

Chronic Health Hazard:

Flammability: 3

Physical Hazard 3

**NFPA Rating**

Health hazard: 2

Fire Hazard: 3

Reactivity Hazard: 3

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Advanced ChemTech shall not be liable for any damage resulting in the handling or from contact with the above product.