## Section 1 – Chemical Product and Company Identification

MSDS Name: Di-t-butylneopentylphosphonium $HBF_4$ Salt

Chemical Family: Phosphine salt

Molecular Formula: $(C_{13}H_{30})BF_4P$

Use of the substance: For research and development use only.

Company: Optima Chemicals Group, LLC
200 Willacoochee Hwy.
Douglas, Georgia 31535
Telephone (912) 384-5101 FAX (912) 384-6330
Emergencies: Telephone (912) 384-5101

## Section 2 – Hazards Identification

Hazards:

Corrosive. White crystalline solid

Corrosive – to eyes (may cause blindness), skin, nose and throat. It is expected to be a lachrymator (substance which increases the flow of tears). Harmful if swallowed or inhaled.

NFPA Rating: Health: 2 Flammability: 0 Reactivity: 0 Special: None

## Section 3 – Composition, Information on Ingredients

| CAS # | Chemical Name | Wt.% |
|---|---|---|
| 886059-84-3 | Di-t-butylneopentylphosphonium $HBF_4$ Salt | >95 |

## Section 4 – First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, lifting the upper and lower eyelids intermittently. See a medical doctor or ophthalmologist immediately.

Skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and/ or shoes. Thoroughly wash with soap and water, and seek medical attention.

Ingestion: Quickly wipe material from the mouth, and rinse mouth out with plenty of water. Dilute with 1 to 2 glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention immediately.

Inhalation: Remove from exposure, to fresh air immediately. If breathing discomfort occurs and persists seek medical attention. If breathing has stopped, give artificial respiration, and see a medical doctor immediately.

Notes to Medical Doctor: This product is corrosive to eyes, skin, and mucous membranes of the respiratory and gastrointestinal tracts. Careful gastric lavage with an endotracheal tube in place should be considered. Treatment is controlled with removal of exposure and symptomatic and supportive care.

## Section 5 – Fire Fighting Measures

Flammable Limits: Upper: Not available Lower: Not available

General Hazard: Corrosive

Fire Extinguishing Agents Recommended: Use CO2, dry chemical powder, water spray or foam.

Hazardous Combustion Products: Not Available

Special Fire fighting Procedures: Wear full protective clothing and self-contained breathing apparatus(SCBA) approved for fire fighting. This is necessary to protect against heat, products of combustion and oxygen deficiency. Do not breathe smoke, gases, or vapors generated.

Autoignition temperature: Not Available

Properties contributing to flammability: Not Available

Flashpoint: Not Available

Sensitivity to Static Discharge: Not Available

Sensitivity to Impact: Not Available

## Section 6 – Accidental Release Measures

Sweep up and place in suitable transport container. Dispose of waste according to local and Federal laws and regulations. Before cleanup measures begin, review the entire MSDS with particular attention to Section 3, Emergency Overview and Potential Health Affects; and Section 8, Recommended Personal and Protective Equipment

## Section 7 - Handling and Storage

Handling: Do not get in eyes, on skin or on clothing. Wash thoroughly after handling. Avoid breathing dust. Keep away from open sparks, flames, and heat.

Storage: Store in tightly closed container. Always store in a cool and well ventilated area.

## Section 8 – Exposure Controls, Personal Protection

Exposure Limits: PEL (OSHA) -None, TWA (ACGIH) - None, STEL/Ceiling (OSHA)- None, STEL/Ceiling (ACGIH) -None

Engineering Controls: use local exhaust ventilation to keep airborne concentrations below exposure limits.

Eyes and Face: Wear splash goggles with a face shield.

Skin: Chemical resistant gloves and clothing.

Respiratory: When engineering controls are not adequate, wear a NIOSH/MSHA respirator approved for protection against organic dusts.

Work Hygienic Practices: Quick-drench eyewash and safety shower.

## Section 9 – Physical and Chemical Properties

Appearance and Odor: Non odorous, white crystalline solid

Melting Point: Not Available

Boiling Point: Not Available

Flash Point: Not Available

Vapor Pressure: Not applicable

Vapor Density: Not available

pH: 3.3 @ 10g/l

Specific Gravity: Not Available

Percent Volatile: Not Available

Water Solubility: low in water, soluable in chloroform

Evaporation Rate: Not Available

Oxidizing Properties: Not Available

Flammable Limits: Not Available

Molecular Weight: 304.0

Autoignition Temperature: Not Available

Viscosity: Not available

Decomposition Temperature: Not available

Explosive Properties: Not explosive

## Section 10 – Stability and Reactivity

Stability: Stable under normal storage and temperature conditions.

Hazardous Polymerization: Does not polymerize

Hazardous Decomposition Products: Carbon oxides, Oxides of Phosphorus, Hydrogen Floride, Borane/Boron oxides

Conditions to Avoid: Moisture

## Section 11 – Toxicological Information

Eyes: Expected to be corrosive.

Skin: Expected to be corrosive.

Ingestion: Expected to be corrosive.

Inhalation: Expected to be corrosive.

Acute Effects from Overexposure: This product is corrosive to the eyes (may cause blindness), skin, respiratory and gastrointestinal tracts.

Chronic Effects from Overexposure: Continuous inhalation exposure may cause lung damage.

Sensitization: Not Available

Carcinogenicity: Not listed by NTP, OSHA, EH40. IARC, or ACGIH.

Mutagenicity: Not Available

Reproductive Toxicity: Not Available

## Section 12 – Ecological Information

Ecotoxicological Information: Not Available

Chemical Fate Information: Not Available

## Section 13 – Disposal Considerations

Dispose of waste in accordance with federal, state, and local regulations.

## Section 14 – Transport Information

DOT Shipping Name: Corrosive solid, acidic, organic, n.o.s. (Di-tert-butylneopentyl phosphine tetrafluoroborate salt)

Classification: 8, Corrosive

Labels: Corrosive

UN Number: UN3261

Packing Group: ll

Marine Pollutant: No

Custom Tariff Number: 2931.00.9160

PIH: Not designated Poison Inhalation Hazard by USDOT.

## Section 15 – Regulatory Information

United States:

Section 311 Hazard Category (40CFR 370): immediate acute health hazard.

Section 313 Reportable Ingredients (40 CFR 372): No reporting requirements.

Section 302 Extremely Hazardous Substances (40 CFR 355): Not listed.

CERCLA Hazardous Substance, RQ, (40 CFR 302.4): Not listed.

TSCA Inventory Status (40 CFR 710): Not listed. For research and development purposes only.

Canada:

WHMIS: Hazard Classification – UN 3261, Class E (corrosive)
Ingredient Disclosure List: Not listed.

**Section 16 – Additional Information**

Creation Date: 06/18/10

This MSDS has been prepared to meet U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200 and Canada's Workplace Hazardous Materials Information System (WHMIS) requirements.

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