 **TNJ Chemical**

**SAFETY DATA SHEET**

# Page 1 of 6

**Revision number:** 1

**Revision date:** 06/09/2019

***1. IDENTIFICATION***

**Product name:** O-(6-Chlorobenzotriazol-1-yl)-N,N,N',N'-tetramethyluronium Tetrafluoroborate

**Product code:** TO2392

**Product use:** For laboratory research purposes.

**Restrictions on use:** Not for drug or household use.

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***2. HAZARD(S) IDENTIFICATION***

**OSHA Haz Com: CFR 1910.1200:** Acute Toxicity - Oral [Category 4]

Eye Damage/Irritation [Category 1] Skin Corrosion/Irritation [Category 1C]

**Signal word:** Danger!

**Hazard Statement(s):** Causes serious eye damage

Causes severe skin burns and eye damage Harmful if swallowed

# Pictogram(s) or Symbol(s):

 

# Precautionary Statement(s):

**[Prevention]** Do not eat, drink or smoke when using this product. Wash hands and face thoroughly after handling. Do not breathe dusts or mists. Use only outdoors or in a well-ventilated area. Wear protective gloves, protective clothing, eye protection and face protection. Wear eye protection. Wear face protection (full length face shield).

**[Response]** If swallowed: Immediately call a poison center or doctor. Rinse mouth. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**[Storage]** Store locked up.

**[Disposal]** Dispose of contents and container in accordance with US EPA guidelines for the classification and determination of hazardous waste listed in 40 CFR 261.3. (See Section 13)

***3. COMPOSITION/INFORMATION ON INGREDIENTS***

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**Substance/Mixture:** Substance

**Components:** O-(6-Chlorobenzotriazol-1-yl)-N,N,N',N'-tetramethyluronium Tetrafluoroborate

**Percent:** >98.0%(HPLC)

**CAS Number:** 330641-16-2

**Molecular Weight:** 355.53

**Chemical Formula:** C11H15BClF4N5O

**Synonyms:** TCTU

***4. FIRST-AID MEASURES***

**Inhalation:** Immediately call a poison center or doctor. Effects of exposure (inhalation) to substance may be delayed. Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

**Skin contact:** For severe burns, immediate medical attention is required. Immediately call a poison center or doctor. Remove and wash contaminated clothing before re-use. Remove and isolate contaminated clothing and shoes. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

**Eye contact:** IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Eye contact with vapors or substance may cause severe injury, burns, or death. Call emergency medical service. Move victim to fresh air. Check for and remove any contact lenses. Keep victim warm and quiet. Treat symptomatically and supportively. Effects of exposure to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

**Ingestion:** Harmful if swallowed. Do not induce vomiting with out medical advice. Call a physician or Poison Control Center immediately. Do not use mouth-to-mouth method if victim ingested the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Loosen tight clothing such as a collar, tie, belt or waistband. If a person vomits place them in the recovery position so that vomit will not reenter the mouth and throat. Rinse mouth. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

# Symptoms/effects:

**Acute:** Pain. Redness.

**Delayed:** No data available

**Immediate medical attention:** WARNING: It might be hazardous to the person providing aid to give mouth-to-mouth respiration, because

the inhaled material is harmful. WARNING: It might be hazardous to the person providing aid to give mouth-to-mouth respiration, because the inhaled material is corrosive. For severe burns, immediate medical attention is required. If breathing has stopped, perform artificial respiration. Use first aid treatment according to the nature of the injury. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

***5. FIRE-FIGHTING MEASURES***

**Suitable extinguishing media:** Dry chemical, CO2 or water spray. Consult with local fire authorities before attempting large scale fire

fighting operations.

**Specific hazards arising from the chemical**

**Hazardous combustion products:** These products include: Carbon oxides Nitrogen oxides Halogenated compounds Borates

**Other specific hazards:** WARNING: Highly toxic HCl gas is produced during combustion.

WARNING: Highly toxic HF gas is produced during combustion.

# Special precautions for fire-fighters:

Use water spray or fog; do not use straight streams. Dike fire-control water for later disposal; do not scatter the material. Containers may explode when heated. Move containers from fire area if you can do it without risk.

# Special protective equipment for fire-fighters:

Wear positive pressure self-contained breathing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.

***6. ACCIDENTAL RELEASE MEASURES***

**Personal precautions:** Avoid contact with skin, eyes, and clothing. Keep people away from and upwind of spill/leak. Do not touch

damaged containers or spilled material unless wearing appropriate protective clothing (Section 8). Warn unnecessary personnel to move away. Stop leak if you can do it without risk. Ensure adequate ventilation. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

***6. ACCIDENTAL RELEASE MEASURES***

**Personal protective equipment:** Wear eye protection (splash goggles) and face protection (full length face shield). Lab coat. Dust

respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves (nitrile).

**Emergency procedures:** Prevent dust cloud. In case of a spill and/or a leak, always shut off any sources of ignition, ventilate the

area, and excercise caution. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Warn personnel to move away. Prevent entry into sewers, basements or confined areas; dike if needed.

# Methods and materials for containment and cleaning up:

ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if without risk. Ventilate the area. Absorb with an inert material and put the spilled material in an appropriate waste disposal container. Use clean non-sparking tools to collect absorbed material.

# Environmental precautions:

Keep away from living quarters. Prevent further leakage or spillage if safe to do so. Water runoff can cause environmental damage. Prevent entry into sewers, basements or confined areas; dike if needed.

***7. HANDLING AND STORAGE***

**Precautions for safe handling:** Avoid inhalation of vapor or mist. Manipulate under an adequate fume hood. Do not ingest. Avoid contact

with skin and eyes. Good general ventilation should be sufficient to control airborne levels. Keep container dry. Handle and open container with care. Wear suitable protective clothing, gloves and eye/face protection. When using do not eat, drink, or smoke. Keep away from sources of ignition.

**Conditions for safe storage:** Store locked up. Keep containers tightly closed in a cool, well-ventilated place. Keep away from

incompatibles. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid prolonged storage periods.

**Storage incompatibilities:** Store away from oxidizing agents

***8. EXPOSURE CONTROLS / PERSONAL PROTECTION***

**Exposure limits:** No data available

# Appropriate engineering controls:

Good general ventilation should be sufficient to control airborne levels. Ventilation is normally required when handling or using this product. Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance. Follow safe industrial engineering/laboratory practices when handling any chemical.

**Personal protective equipment**

**Respiratory protection:** Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent.

**Hand protection:** Nitrile gloves.

**Eye protection:** Safety glasses.

**Skin and body protection:** Wear protective clothing (lab coat and chemical resistant boots).

***9. PHYSICAL AND CHEMICAL PROPERTIES***

# Physical state (20°C): Solid

**Form:** Crystal - Powder

**Color:** White - Almost white

**Odor:** No data available

**Odor threshold:** No data available

# Melting point/freezing point:

204°C (399°F)

**pH:** No data available

**Boiling point/range:** No data available

**Decomposition temperature:** No data available

# Vapor pressure: Vapor density:

No data available No data available

**Relative density:** No data available

**Kinematic Viscosity:** No data available

**Dynamic Viscosity:** No data available

# Partition coefficient:

**n-octanol/water (log Pow)**

No data available

# Evaporation rate:

(Butyl Acetate = 1)

No data available

**Flash point:** No data available **Autoignition temperature:** No data available

**Flammability (solid, gas):** No data available **Flammability or explosive limits:**

**Lower:** No data available

**Upper:** No data available

# Solubility(ies):

**Soluble:** Acetonitrile

***10. STABILITY AND REACTIVITY***

**Reactivity:** Not Available.

**Chemical Stability:** Stable under recommended storage conditions. (See Section 7)

**Possibility of Hazardous Reactions:** No hazardous reactivity has been reported.

**Conditions to avoid:** Avoid excessive heat and light.

**Incompatible materials:** Oxidizing agents

**Hazardous Decomposition Products:** No data available

***11. TOXICOLOGICAL INFORMATION***

# Acute Toxicity:

No data available

# Skin corrosion/irritation:

No data available

# Serious eye damage/irritation:

No data available

# Respiratory or skin sensitization:

No data available

# Germ cell mutagenicity:

No data available

# Carcinogenicity:

No data available

**IARC:** No data available **NTP:** No data available **OSHA:** No data available

# Reproductive toxicity:

No data available

**Routes of Exposure:** Inhalation, Eye contact, Ingestion, Skin contact.

# Symptoms related to exposure:

Overexposure may result in serious illness or death. Skin contact may produce burrns. Skin contact may result in inflammation; characterized by itching, scaling, reddening, or occasionally blistering. Eye contact can result in corneal damage or blindness.

# Potential Health Effects:

No specific information available; skin and eye contact may result in irriatation. May be harmful if inhaled or ingested.

**Target organ(s):** No data available

***12. ECOLOGICAL INFORMATION***

**Ecotoxicity**

**Fish:** No data available

**Crustacea:** No data available

**Algae:** No data available

**Persistence and degradability:** No data available **Bioaccumulative potential (BCF):** No data available **Mobillity in soil:** No data available

# Partition coefficient:

**n-octanol/water (log Pow)**

No data available

**Soil adsorption (Koc):** No data available

# Henry's Law: constant (PaM3/mol)

No data available

***13. DISPOSAL CONSIDERATIONS***

**Disposal of product:** Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local

rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains, water ways, or the soil.

**Disposal of container:** Dispose of as unused product. Do not re-use empty containers.

**Other considerations:** Observe all federal, state and local regulations when disposing of the substance.

***14. TRANSPORT INFORMATION***

**DOT (US)**

**UN number:**

UN1759

**IATA**

**UN number:**

UN1759

# Proper Shipping Name:

Corrosive solids, n.o.s.

# Proper Shipping Name:

Corrosive solid, n.o.s.

# Class or Division:

8 Corrosive material

# Class or Division:

8 Corrosive material

# Packing Group:

III

# Packing Group:

III

**IMDG**

**UN number:**

UN1759

# Proper Shipping Name:

Corrosive solid, n.o.s.

# Class or Division:

8 Corrosive material

# Packing Group:

III

**EmS number:** F-A, S-B

***15. REGULATORY INFORMATION***

# Toxic Substance Control Act (TSCA 8b.):

This product is NOT on the EPA Toxic Substances Control Act (TSCA) inventory. The following notices are required by 40 CFR 720.36 (C) for those products not on the inventory list:

1. These products are supplied solely for use in research and development by or under the supervision of a technically qualified individual as defined in 40 CFR 720.0 et sec.
2. The health risks of these products have not been fully determined. Any information that is or becomes available will be supplied on a SDS sheet.

**US Federal Regulations**

**CERCLA Hazardous substance and Reportable Quantity: SARA 313:** Not Listed

**SARA 302:** Not Listed

# State Regulations State Right-to-Know

**Massachusetts** Not Listed

**New Jersey** Not Listed

**Pennsylvania** Not Listed

**California Proposition 65:** Not Listed

# Other Information NFPA Rating:

**Health:** 2

**Flammability:** 0

**Instability:** 0

**HMIS Classification: Health:** 2

**Flammability:** 0

**Physical:** 0

**International Inventories**

**WHMIS hazard class:** E: Corrosive material.

D2A: Materials causing other toxic effects. (Very Toxic)

***16. OTHER INFORMATION***

**Revision date:** 06/092019

# Revision number: 1

***16. OTHER INFORMATION***

The information above is believed to be accurate and represents the best information currently available to us. 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 event shall we m 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, howsoever arising, even if we have been advised of the possibility of such damages.