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# SAFETY DATA SHEET

### Section 1. Identification

Niobium(IV) chloride tetrahydrofuran complex **Product Name:** 

**Product Type:** Solid

61247-57-2 **CAS Number: Product Number:** NB7572

**Recommended Use:** Laboratory chemicals, synthesis of substances.

This product is being supplied under the TSCA R&D Exemption (40 **Uses Advised Against:** 

> CFR Section 720.36). It is the recipient's responsibility to comply with the requirements of the R&D exemption. The product may not be used for a non-exempt commercial purpose under TSCA unless

appropriate consent is granted in writing by Ereztech LLC.

**Product Manufacturer:** Ereztech LLC

11555 Medlock Bridge Road, Suite 100

Johns Creek, GA 30097

**Product Information:** (888) 658-1221

CHEMTREC: 1-800-424-9300 (USA); In Case of an Emergency:

> +1 703-527-3887 (International); CCN836180 \*\*\* Contact manufacturer for all non-emergency calls.

### Section 2. Hazards Identification

Appearance/Odor: Yellow to orange to brown crystals or powder, pungent odor.

Classification: FLAMMABLE SOLIDS - Category 1, H228

SKIN CORROSION/IRRITATION - Category 1B, H314

SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1, H318

**GHS Label Elements Hazard Pictograms:** 



**Signal Word: DANGER** 

**Hazard Statements:** H228: Flammable solid.

H314: Causes severe skin burns and eye damage.

H318: Causes serious eye damage.

### Section 2. Hazards Identification

**Precautionary Statements** 

Response:

Storage:

**Prevention:** P210: Keep away from heat, hot surfaces, sparks, open flames and

other ignition sources. No smoking.

P240: Ground and bond container and receiving equipment.

P241: Use explosion proof electrical/ventilating/lighting/processing equipment.

P260: Do not breathe dusts/aerosols/vapors/gases.

P264 + P265: Wash hands and exposed skin thoroughly after handling. Do not touch eyes.

P280: Wear protective gloves/ protective clothing/ eye protection/

face protection/hearing protection.

P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P302 + P361 + P354: IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes.

P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P354 + P338: IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P316: Get emergency medical help immediately. P363: Wash contaminated clothing before reuse.

P370 + P378: In case of fire: Use carbon dioxide (CO<sub>2</sub>) or dry chemical to extinguish. DO NOT USE WATER OR FOAM.

P405: Store locked up.

P501: Dispose of contents/container in accordance with federal, Disposal:

state and local regulations.

This material is considered hazardous by the OSHA Hazard **OSHA/HCS Status:** 

Communication Standard (29 CFR 1910.1200).

Product reacts with water to release hydrogen chloride and. **Hazards Not Otherwise** 

tetrahydrofuran Classified (HNOC):

## Section 3. Composition/Information on Ingredients

**Substance Type:** Mono-constituent.

Tetrachlorobis(tetrahydrofuranate)niobium(IV); Tetrachloroniobium Synonyms:

tetrahydrofuran; Tetrachloroniobium THF.

C<sub>8</sub>H<sub>16</sub>O<sub>2</sub>Cl<sub>4</sub>Nb Formula: 378.93 g/mol. **Molecular Weight:** 626-519-8 EC-No.:

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## Section 3. Composition/Information on Ingredients

Component Name	%	CAS Number
Niobium(IV) chloride tetrahydrofuran complex	≥ 93.5	61247-57-2

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

### Section 4. First Aid Measures

### **Description of Necessary First Aid Measures**

General Advice: Move out of dangerous area. Get emergency medical help immediately. Show

this safety data sheet to the doctor in attendance. If unconscious, place in recovery position and get medical help immediately. Maintain an open airway.

Loosen tight clothing such as a collar, tie, belt or waistband.

**Eye Contact:** Immediately flush eyes with plenty of water, occasionally lifting the upper and

lower eyelids. Rinse for a minimum of 15 minutes. Check for and remove any contact lenses after initial rinse period and continue rinsing for an additional 15 minutes. Keep eyes wide open during rinsing process. Get emergency medical

help immediately.

**Skin Contact:** Remove all contaminated clothing and shoes. Wash off contaminated skin with

plenty of water for a minimum of 15 minutes. Thoroughly clean and dry

contaminated clothing before reuse. Destroy/discard contaminated shoes. In the

event of complaints or symptoms, avoid further exposure. Get emergency

medical help immediately.

**Inhalation:** Remove person to fresh air and keep comfortable for breathing. Rescuer should

wear a mask or self-contained breathing apparatus if it is suspected that fumes are still present. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Do not use the mouth-to-mouth method of resuscitation if victim ingested or inhaled the product; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get emergency

medical help immediately.

**Ingestion:** Do NOT induce vomiting. Rinse mouth. Remove dentures if any. If vomiting

occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If person is not breathing, if breathing is irregular or if respiratory arrest occurs, see the "Inhalation" first aid measures noted above. Get emergency medical help

immediately.

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### Section 4. First Aid Measures

Most Important Symptoms/Effects, Acute And Delayed Potential Acute Health Effects

**Eye Contact:** Product causes serious eye damage. Symptoms may include watering, redness,

pain, swelling of the eyelids, inability to keep eye open, blurred vison and

temporary/permanent loss of vision.

**Skin Contact:** Skin contact with this product may be expected to cause severe chemical burns.

Symptoms may include reddening of skin, a burning or itching sensation, pain,

blistering and tissue necrosis.

**Inhalation:** Product is extremely corrosive to mucous membranes and tissues of the upper

respiratory tract. Symptoms may include a burning sensation, coughing, coughing up blood (hemoptysis), wheezing, laryngitis, shortness of breath/difficulty in breathing (dyspnea), blueness (cyanosis) of lips and skin, nausea,

headaches, disorientation, general weakness and loss of consciousness.

Ingestion: Ingestion may be expected to result in burns of the mouth and throat and

potential perforation of the esophagus and stomach. Symptoms may include pain when swallowing (odynophagia), difficulty swallowing (dysphagia), fever, nausea, recurrent vomiting (emesis) and vomiting of blood (hematemesis). Severe burns which may be accompanied by perforation of the esophagus and stomach may present additional symptoms of abdominal pain/rigidity, chest

and/or back pain.

Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary

Notes to Physician: Treat symptomatically.

Specific Treatments: No specific treatment.

Protection of First Responders: No action taken shall be taken involving any personal risk

without suitable training. It may be dangerous to the person

providing aid to give mouth-to-mouth resuscitation.

See Toxicological Information (Section 11)

### Section 5. Fire Fighting Measures

**General Hazards:** Product reacts with water and protic solvents to release

hydrogen chloride and tetrahydrofuran.

Suitable Extinguishing Media: THE MOST EFFECTIVE FIRE EXTINGUISHING AGENT IS DRY

CHEMICAL POWDER PRESSURIZED WITH NITROGEN. Carbon

dioxide  $(CO_2)$  may also be used.

Unsuitable Extinguishing Media: DO NOT USE WATER OR FOAM.

Unusual Fire and Product reacts with water to release hydrogen chloride and tetrahydrofuran. Gases released are corrosive and may form

tetrahydrofuran. Gases released are corrosive and may form explosive mixtures with air. Gases released when product is exposed to water are heavier than air and will spread along the

ground.

### Section 5. Fire Fighting Measures

Unusual Fire and Explosion Hazards:

**Product of Combustion:** 

Vapors may accumulate in low or confined areas or travel a considerable distance to an ignition source and flashback.

Decomposition products released under fire conditions include tetrahydrofuran, hydrogen chloride, carbon oxides  $(CO_x)$  and niobium oxides. Irritating/corrosive fumes and organic acid vapors may be generated during exposure to elevated temperatures or open flame.

**Protection of Firefighters:** 

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Prevent contact with skin or eyes. Prevent the formation and inhalation of dusts, aerosols, vapors and gases.

Eliminate all local and distant ignition sources. Move containers from fire area if process can be accomplished without risk to firefighters. To reduce the possibility of explosion, use a water spray or fog to reduce direct vapors and to cool unopened containers. Do not cut, grind, drill or weld on or near product containers (even empty) of this product because an explosion may result.

Fire-fighters should wear appropriate protection equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in a positive pressure mode.

Additional Information:

Prevent fire extinguishing water from contaminating surface waters or ground water systems.

### Section 6. Accidental Release Measures

#### Personal Precautions, Protective Equipment and Emergency Procedures

For Non-Emergency Personnel:

No action shall be taken involving any personal risk or without suitable training. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take action to prevent static discharges. Use non-sparking tools and equipment. Beware of vapors accumulating in low areas to form explosive concentrations. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Prevent contact with skin, eyes or clothing. Prevent the formation and inhalation of dusts, aerosols, vapors and gases. Provide adequate ventilation or wear respiratory protection. Put on appropriate personal protective equipment.

### Section 6. Accidental Release Measures

For Emergency Responders: If specialized clothing is required to deal with the spillage, take

note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For Non-Emergency

Personnel".

**Environmental Precautions:** Prevent spilled material and firefighting runoff from entering the

surrounding environment (soil contact, entry into drains, sewers and waterways). Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or

air).

**Methods for Containment** 

General: Eliminate all local and distant ignition sources. Move containers

from spill area if safe to do so. Prevent the formation and

inhalation of dusts, aerosols, vapors and gases. Use spark-proof tools and explosion-proof equipment. Dispose of collected

spillage in accordance with federal, state and local regulations.

Contaminated binding material may pose the same hazard as the

spilled product.

Small Spill: Collect spillage with a dry binding material (e.g. sand, earth, vermiculite or diatomaceous earth) and place in dry, sealed

container for disposal.

Large Spill: Approach release from upwind. Prevent entry into sewers, water

courses, basements or confined areas. Contain and collect spillage with a dry binding material (e.g. sand, earth, vermiculite or diatomaceous earth) and place in dry, sealed container for

disposal.

Note: see Section 1 for emergency contact information and

Section 13 for waste disposal.

### Section 7. Handling and Storage

**Precautions:** Product is air sensitive and reacts with water to release

hydrogen chloride and tetrahydrofuran; handle under a dry, inert

gas. Nitrogen with less than 5 ppm each of moisture and

oxygen is recommended. Keep away from all sources of ignition – NO SMOKING. Keep container tightly sealed. Prevent contact

with skin, eyes and clothing. Do not ingest. Prevent the formation and inhalation of dusts, aerosols, vapors and gases.

Avoid prolonged exposure. Ensure adequate ventilation.

Protective Measures: Protect against electrostatic discharges. Use explosion-proof

electrical/ventilating/lighting/handling equipment. Use non-

sparking tools and equipment.

## Section 7. Handling and Storage

Protective Measures (cont.): Put on appropriate personal protective equipment (see

Section 8). Keep in the original container kept tightly closed when not in use. Empty containers retain product residue

and can be hazardous. Do not reuse container.

General Occupational Hygiene: Eating, drinking and smoking should be prohibited in areas

where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and

smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8

for additional information on hygiene measures.

Safe Storage Conditions: Product is air sensitive and reacts with water to release

hydrogen chloride and tetrahydrofuran; store under an inert gas. Nitrogen with less than 5 ppm each of moisture and oxygen and a temperature range 2 – 8 °C of is recommended. Keep away from all sources of ignition – NO SMOKING. Store in original container protected from direct sunlight in a dry and well-ventilated area, away from incompatible materials noted above and food and drink. Keep container tightly closed and sealed until ready for use. Store locked up.

Section 8. Exposure Controls/Personal Protection

Introductory Remarks: These recommendations provide general guidance for

handling this product. Because work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean

equipment and conduct regular repairs. Waste from these procedures should be handled in accordance with Section 13.

Occupational Exposure Limits: Product, as supplied, does not contain any hazardous

materials with occupational exposure limits established by the

region-specific regulatory bodies.

**Engineering Controls:** Properly operating explosion-proof, chemical fume hood

designed for hazardous chemicals and having an average face

velocity of at least 100 feet per minute. Provide an

eyewash/shower station.

**Environmental Exposure Controls:** Emissions from ventilation or work process equipment should

be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process

equipment will be necessary to reduce emissions to

acceptable levels.

### Section 8. Exposure Controls/Personal Protection

#### **Individual Protection Measures**

Avoid all unnecessary exposure. Wash all exposed skin (hands, forearms **Hygiene Measures:** 

> and face) thoroughly after handling product, before eating, smoking and using the lavatory and at the end of the working period. Remove all soiled and contaminated clothing immediately. Do not allow contaminated clothing to leave the workplace. Do not inhale dusts, aerosols, vapors or gases. Prevent contact with eyes and skin. Ensure that eyewash stations

and safety showers are close to the workstation location.

**Eye/Face Protection:** Safety eyewear complying with an approved standard should be used

> when a risk assessment indicates this is necessary to avoid exposure to dusts and aerosols. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles, faceshield (8-inch minimum). Refer to 29 CFR

1910.133, ANSI Z87.1, or European Standard EN166.

**Skin Protection** 

**Hand Protection:** Chemical-resistant, impervious gloves complying with an approved

standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: Chemical-resistant

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.

For full contact, wear Neoprene or nitrile rubber gloves.

Appropriate footwear and any additional skin protection measures should **Other Skin Protection:** 

> be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity discharges, wear anti-static, flame retardant protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

**Respiratory Protection:** Where risk assessment shows air-purifying respirators are appropriate use

> a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.

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## Section 8. Exposure Controls/Personal Protection

**Respiratory Protection (cont.):** 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).

## Section 9. Physical and Chemical Properties

Solid (powder/crystals). **Physical State: Color:** Yellow to orange to brown.

Odor: Pungent.

**Odor Threshold:** No data available. No data available. pH:

93 °C (199 °F) - decomposes. **Melting Point:** 

No data available. **Boiling Point:** 

49 °C (120 °F) – closed cup. **Flash Point:** Category 1 flammable solid. Flammability:

No data available. **Density: Vapor Pressure:** No data available. Vapor Density: No data available.

Insoluble, reacts with water to produce hydrogen chloride Water Solubility:

and tetrahydrofuran.

**Evaporation Rate:** Not applicable. Viscosity: Not applicable.

## Section 10. Stability and Reactivity

This product reacts with water to release hydrogen chloride Reactivity:

and tetrahydrofuran.

This product is stable when stored under a dry, inert **Chemical Stability:** 

> atmosphere and away from heat. Nitrogen containing less than 5 ppm each moisture and air and a temperature range

of 2 – 8 °C is recommended.

Exposure to water/moisture, sources of ignition (heat, **Conditions to Avoid:** 

flames, sparks, electrostatic discharges), extremes of

temperature and direct sunlight.

Strong oxidizing agents. **Incompatible Materials:** 

Decomposition products include tetrahydrofuran, hydrogen **Hazardous Decomposition Products:** 

chloride, carbon oxides (CO<sub>x</sub>) and niobium oxides.

## Section 10. Stability and Reactivity

**Hazardous Decomposition Products:** 

(cont.)

Irritating/corrosive fumes and organic acid vapors may be generated during exposure to elevated temperatures or open flame. In the event of a fire: see Section 5.

**Possibility of Hazardous Reactions:** 

Under normal conditions of storage and use noted above, hazardous reactions will not occur. Hazardous reactions or instability may occur under certain conditions of storage or use.

## Section 11. Toxicological Information

Information on Toxicological Effects

**Acute Toxicity:** No specific data available.

Irritation/Corrosion: No specific data available. Product is extremely corrosive to

tissues of the skin, eyes, upper respiratory tract and exposed

mucous membranes.

No specific data available. Sensitization: **Germ Cell Mutagenicity:** No specific data available.

Carcinogenicity

Component	CAS No	ACGIH	IARC	NTP	OSHA
Niobium(IV) chloride tetrahydrofuran complex	61247-57-2	Not listed	Not listed	Not listed	Not listed

No specific data available. **Reproductive Toxicity:** 

Teratogenicity: No specific data available. **Specific Target Organ Toxicity:** No specific data available.

(Single Exposure)

**Specific Target Organ Toxicity:** 

(Repeated Exposure)

No specific data available.

**Aspiration Hazard:** No specific data available.

Common routes of exposure: inhalation (failure to Information on the Likely

prevent dust formation), dermal (failure to use skin **Routes of Exposure:** protection), eye (failure to use safety eyewear). Less

common: ingestion (failure to employ recommended hygiene

measures (e.g. smoking after handling product without

washing hands or using hand protection).

To the best of our knowledge, the chemical, physical and **Additional Information:** 

toxicological properties of this product have not been

thoroughly investigated.

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### Section 12. Ecological Information

**Ecotoxicity:** Product may cause immediate and long-term adverse

effects in the aquatic environment.

**Numerical Measures of Toxicity:** No specific data available.

Persistence and Degradability

Biodegradability: No specific data available. **Bioaccumulative Potential:** No specific data available. No specific data available. **Mobility in Soil:** 

Results of PBT and vPvB Assessment: PBT/vPvB assessment not available as chemical safety

assessment not required/not conducted.

**Endocrine Disrupting Properties:** No specific data available.

**Other Adverse Effects:** An environmental hazard cannot be excluded in the event

of unprofessional handling or disposal.

agency before disposing of any chemicals.

Dispose of in accordance with local, state, and federal regulations. Refer to 40 CFR 260-299 for complete waste disposal regulations. Consult your local, state, or federal

## Section 13. Disposal Considerations

**Waste Treatment Methods** 

**Product:** 

**Contaminated Packaging:** Empty containers retain product residue (dusts, aerosols,

DFATH.

vapors, gases) and can be dangerous. Dispose of as unused product. DO NOT EXPOSE OPENED/EMPTY CONTAINERS TO MOISTURE/WATER, HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION: THEY MAY EXPLODE AND CAUSE INJURY OR

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### Section 14. Transport Information

	DOT	IMDG	IATA
UN Number	UN2925	UN2925	UN2925
UN Proper Shipping Name	Flammable solid, corrosive, organic, n.o.s. (Niobium(IV) chloride tetrahydrofuran complex)	FLAMMABLE SOLID, CORROSIVE, ORGANIC, N.O.S. (Niobium(IV) chloride tetrahydrofuran complex)	Flammable solid, corrosive, organic, n.o.s. (Niobium(IV) chloride tetrahydrofuran complex)
Transport Hazard Classes	4.1 (8)	4.1 (8)	4.1 (8)
Packing Group	П	П	П
Environmental Hazards	-	-	-
Additional Information		EMS-No: F-A, S-G	-

Special Precautions for User:

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

### Section 15. Regulatory Information

#### **TSCA (Toxic Substance Control Act)**

This product is not listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory). Use of this product is restricted to research and development only. This product must be used under the supervision of a technically qualified individual as defined by the TSCA. This product must not be used for commercial purposes or in formulations for commercial purposes.

This product as supplied is not subject to the TSCA Significant New Use Rule.

This product as supplied is not subject to TSCA 12(b) export notification requirements.

#### **SARA 302 Components**

This product does not contain any components which are subject to the reporting requirements of SARA Title III, Section 302 EHS TPQ.

### **SARA 304 Components**

This product does not contain any components which are subject to the reporting requirements of SARA Title III, Section 304 RQ.

#### SARA 311/312 Hazards

Fire Hazard (Flammable solid); Acute Health Hazard (Skin corrosion or irritation; Serious eye damage or eye irritation).

### Section 15. Regulatory Information

#### **SARA 313 Components**

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.

#### **Clean Water Act**

Not applicable.

#### **Clean Air Act**

Not applicable.

#### **CERCLA Reportable Quantity**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

### **US Department of Homeland Security (DHS)**

This product does not contain any DHS chemicals.

#### **US Department of Transportation (DOT)**

Component	Reportable Quantity	DOT Marine Pollutant	DOT Severe Marine Pollutant
Niobium(IV) chloride	No	No	No
tetrahydrofuran complex			

### **US State Right-to-Know Listings**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Niobium(IV) chloride tetrahydrofuran complex	. I N _ G C	HEW	TCAL	GAP	5

<sup>&</sup>quot;X" – Listed.

#### **US State Chemicals of High Concern Listings**

Component	Maine	Vermont	Washington
Niobium(IV) chloride	-	-	-
tetrahydrofuran complex			

<sup>&</sup>quot;X" - Listed.

#### **California Proposition 65 Components**

This product does not contain any Proposition 65 chemicals.

### Section 16. Other Information

#### National Fire Protection Association (U.S.A.)



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Copyright © 2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

#### **HMIS Rating**

HEALTH	3
FLAMMABILITY	3
PHYSICAL HAZARD	2

### <u>History</u>

Date of Issue/Date of Revision: 10/2/2025.

Date of Previous Issue: None.

References: None available.

### **Abbreviations and Acronyms**

ACGIH : American Conference of Governmental Industrial Hygienists.

AIHA : American Industrial Hygiene Association.

ATE : Acute Toxicity Estimate (per Chapter 3.1 of GHS 10 standard).

BEI : Biological Exposure Indices (ACGIH).

CAS : Chemical Abstracts Service (division of the American Chemical Society).

CHRIS : Chemical Hazards Response Information System (US DOT).

CLP : Classification, Labeling and Packaging (European Union (EU)).

DOT : US Department of Transportation.

EC-No. : The EC Inventory (EINECS, ELINCS and the NLP-list is the source of the seven digit

EC number, an identifier of substances commercially available with the EU (European

Union).

### Section 16. Other Information

#### Abbreviations and Acronyms (cont.)

EINECS : European Inventory of Existing Commercial Chemical Substances.

EHS : Extremely Hazardous Substance.

ELINCS : European List of Notified Chemical Substances.

GHS : Globally Harmonized System of Classification and Labeling of Chemicals.

HAP : Hazardous Air Pollutants (Clean Air Act).HMIS : Hazardous Materials Identification System.

HNOC : Hazards Not Otherwise Classified.

IARC : International Agency for Research on Cancer.

IATA : International Air Transport Association.

IATA-DGR : Dangerous Goods Regulations by the "International Air Transport Association"

(IATA).

IDLH : Immediately Dangerous to Life or Health (US National Institute for Occupation Health

and Safety (NIOSH)).

IMDG : International Maritime Code for Dangerous Goods.

IP : Intraperitoneal.
IV : Intravenous.

NFPA : National Fire Protection Association.

NIOSH : National Institute of Occupational Safety and Health.

NSRL : No Significant Risk Levels.
NTP : National Toxicology Program.

ODS : Ozone Depleting Substances (US Clean Air Act).

OECD : Organization for Economic Co-Operation and Development.

OEL : Occupational Exposure Limit.

OSHA: Occupational Safety and Health Administration.

PBT : Persistent Bioaccumulative and Toxic.

PEL : Permissible Exposure Limits.
REL : Recommended Exposure Limits.

RQ : Reportable Quantity.

SARA : Superfund Amendments and Reauthorization Act.

STEL (ST) : Short Term Exposure Limit (ACGIH/NIOSH)

STOT : Specific Target Organ Toxicity.
 TLV : Threshold Limit Values (ACGIH).
 TPQ : Threshold Planning Quantity.
 TWA : Time Weighted Average.
 VOC : Volatile Organic Compound.

vPvB : Very Persistent and Very Bioaccumulative.

WEEL : Workplace Environmental Exposure Level (AIHA).

#### **Disclaimer**

The information herein is believed to be accurate and is presented in good faith; however, no warranties or representations are made by Ereztech LLC regarding the accuracy or completeness of the information. Ereztech LLC shall not be liable for any damages resulting from the handling, or from the contact with the above product.

### Section 16. Other Information

#### **Disclaimer (cont.)**

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

