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SAFETY DATA SHEET

Section 1. Identification

Product Name: <u>Tris(dimethylamino)silane</u>

Product Type: Liquid

CAS Number: 15112-89-7

Product Number: S12897

Product Manufacturer: Ereztech LLC

11555 Medlock Bridge Road, Suite 100

Johns Creek, GA 30097

Product Information: (888) 658-1221

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

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

Section 2. Hazards Identification

Appearance/Odor: Colorless to light yellow liquid, acrid/amine-like odor.

Classification: FLAMMABLE LIQUIDS - Category 2, H225

SUBSTANCE AND MIXTURES, WHICH IN CONTACT WITH WATER,

EMIT FLAMMABLE GASES - Category 2, H261 ACUTE TOXICITY, ORAL - Category 4, H302 ACUTE TOXICITY, DERMAL - Category 3, H311

SKIN CORROSION/IRRITATION - Category 1B, H314

SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1, H318

ACUTE TOXICITY, INHALATION - Category 1, H330

HAZARDOUS TO THE AQUATIC ENVIRONMENT, ACUTE HAZARD -

Category 3, H402

GHS Label Elements

Hazard Pictograms:



Signal Word: DANGER

Hazard Statements: H225: Highly flammable liquid and vapor.

H261: In contact with water releases flammable gases.

Section 2. Hazards Identification

Hazard Statements (cont.): H302: Harmful if swallowed.

H311: Toxic in contact with skin.

H314: Causes severe skin burns and eye damage.

H318: Causes serious eye damage.

H330: Fatal if inhaled.

H402: Harmful to aquatic life.

<u>Precautionary Statements</u>

Prevention:

- P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P223: Do not allow contact with water.
- P231 + P232: Handle and store contents under inert gas. Protect from moisture.
- P233: Keep container tightly closed.
- P240: Ground and bond container and receiving equipment.
- P241: Use explosion-proof electrical/ventilating/lighting/handling equipment.
- P242: Use non-sparking tools.
- P243: Take action to prevent static discharge.
- P260: Do not breathe sprays, mists, vapors or gases.
- P262: Do not get in eyes, on skin or on clothing.
- P264 + P265: Wash hands and skin thoroughly after handling. Do not touch eyes.
- P270: Do not eat, drink or smoke when using this product.
- P271: Use only outdoors or with adequate ventilation.
- P273: Avoid release to the environment.
- P280: Wear protective gloves/ protective clothing/ eye protection/ face protection/hearing protection.
- P284: In case of inadequate ventilation wear respiratory protection.
- P301 + P317: IF SWALLOWED: Get medical help.
- P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P302 + P335 + P334: IF ON SKIN: Brush off loose particles from skin and immerse in cool water.
- P302 + P352: IF ON SKIN: Wash with plenty of water.
- 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.

Response:

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Section 2. Hazards Identification

Response (cont.): P316: Get emergency medical help immediately.

P330: Rinse mouth.

P361 + P364: Take off immediately all contaminated clothing and

wash it before reuse.

P363: Wash contaminated clothing before reuse.

P370 + P378: In case of fire: Use alcohol-resistant foam, dry chemical or carbon dioxide for extinction. DO NOT USE

WATER.

P402 + P404: Store in a dry place. Store in a closed container. Storage:

P403 + P233 + P235: Store in a well ventilated place. Keep

container tightly closed. Keep cool.

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).

Hazards Not Otherwise Classified [HNOC]:

Contact with water releases toxic gas (dimethylamine).

Section 3. Composition/Information on Ingredients

: 3DMAS; Tris(dimethylamido)silane; (Me2N)3SiH; **Synonyms**

N,N,N',N',N",N"-hexamethylsilanetriamine.

 $: C_6H_{19}N_3Si$ **Formula** Molecular Weight : 161.32 g/mol

Ingredient Name	%	CAS Number
<u>Tris(dimethylamino)silane</u>	≥ 99	15112-89-7

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

<u>Description of Necessary First Aid Measures</u>

General Advice: Move out of dangerous area. Get immediate medical help. 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.

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Section 4. First Aid Measures

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

> 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 immediate medical

help.

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 immediate

medical help.

Inhalation: Remove person to fresh air and keep at rest in a position 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. Get immediate medical help. In the case of

inhalation of decomposition products from a fire, symptoms may be delayed. The

exposed person may need to be kept under medical surveillance for 48 hours.

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. Get immediate medical

help.

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

Eye Contact: 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.

Inhalation: Product is fatal if inhaled and 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 and death.

Skin Contact: Product is toxic in contact with skin and may be expected to cause (severe)

chemical burns. Symptoms may include reddening of skin, a burning or itching

sensation, pain, blistering and tissue necrosis.

Product is harmful if ingested and may be expected to cause burns of the mouth Ingestion:

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).

Section 4. First Aid Measures

Ingestion (cont.): 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 violently with water to release flammable/toxic gases (dimethylamine).

Suitable Extinguishing Media: THE MOST EFFECTIVE FIRE EXTINGUISHING AGENT IS DRY CHEMICAL POWDER PRESSURIZED WITH NITROGEN.

Vermiculite, sand, soda ash, lime, dry chemical or carbon dioxide (CO₂) may also be used. CAUTION: REIGNITION MAY

OCCUR.

Unsuitable Extinguishing Media: DO NOT USE FOAM OR WATER as extinguishing agents as

product reacts violently with these agents to release

flammable/toxic gases (dimethylamine).

Unusual Fire and Product reacts violently with water to produce flammable Explosion Hazards: /toxic gases. In case of fire, reignition of the product may

/toxic gases. In case of fire, reignition of the product may occur after the fire has been extinguished. Product runoff to sewer may create a fire or explosion hazard. Vapors/gases released when product is exposed to moisture in air or water

are heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a

considerable distance to an ignition source and flashback. Do not cut, grind, drill or weld on or near the container (even empty) of this product as an explosion may result. Keep away from heat, sparks and flame. Prevent fire control water from contaminating surface water or ground water systems.

Product of Combustion: Products of combustion include carbon oxides (CO_x) , nitrogen

oxides (NO_x) and silicon dioxide. Irritating/toxic fumes and organic acid vapors may be generated during exposure to

elevated temperatures or open flame.

Section 5. Fire Fighting Measures

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. Avoid contact with skin or eyes. Do not breathe sprays, mists, 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. Do not cut, grind, drill or weld on or near product containers (even empty) of this product because an explosion may result. Use water spray (fog) to cool exposed containers and to suppress mists, vapors and gases.

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

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. Evacuate surrounding areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Prevent the formation and inhalation of sprays, mists, gases and vapors. Provide adequate ventilation. Wear respiratory protection. Put on appropriate personal protective equipment.

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:

Do not allow dispersal of spilled material and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for Containment

General:

Spilled material will likely give off smoke and fumes. Ignition may occur immediately. Eliminate all local and distant ignition sources. Move containers from spill area if safe to do so.

Section 6. Accidental Release Measures

General (cont.): Avoid allowing the spilled material to get wet or using water to

> clean up spillages or residues. Use spark-proof tools and explosion-proof equipment. Prevent the formation and inhalation of sprays and mists. Dispose of collected spillage in

accordance with federal, state and local regulations.

Contaminated absorbent material may pose the same hazard

as the spilled product.

Collect spillage with a dry binding material (e.g. sand, earth, **Small Spill:**

vermiculite or diatomaceous earth) and place in dry, sealed

container for disposal.

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

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 reacts violently with water to release flammable/toxic gases; 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. Protect against electrostatic discharges. Use explosion-proof electrical/ventilating/lighting/handling equipment. Use non-

sparking tools and equipment. Keep container tightly sealed. Avoid contact with skin, eyes and clothing. Prevent the formation and inhalation of sprays, mists, vapors and gases.

Do not ingest or inhale. Avoid prolonged exposure. Ensure

adequate ventilation.

Protective Measures: 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.

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

> 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.

Section 7. Handling and Storage

Safe Storage Conditions:

Product reacts violently with water to release flammable/toxic gases; store under an inert gas. Nitrogen with less than 5 ppm each of moisture and oxygen is recommended. Store refrigerated at 2 – 8 °C. 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 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

	List	Components	CAS-No.	Туре	Value	
	ACGIH	Dimethylamine	124-40-3	TLV	Skin sensitizer	
Ξ					STEL: 27.6 mg/ m ³ 15 min.	
	В	RIDGING	СНЕ	MICA	STEL: 15 ppm 15 min. TWA: 9.2 mg/ m³ 8 hrs. TWA: 5 ppm 8 hrs.	
	NIOSH	Dimethylamine	124-40-3	REL	TWA: 18 mg/ m ³ 10 hrs. TWA: 10 ppm 10 hrs.	
	OSHA	Dimethylamine	124-40-3	PEL	TWA: 18 mg/ m ³ 8 hrs. TWA: 10 ppm 8 hrs.	

Engineering Controls:

Properly operating 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

Hygiene Measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Remove all soiled and contaminated clothing immediately. Do not inhale sprays, mists, vapors or gases. Avoid 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 liquid splashes, mists or 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, use Neoprene or nitrile rubber.

Other Skin Protection:

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 8. Exposure Controls/Personal Protection

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. 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).

Physical and Chemical Properties Section 9.

Liquid. **Physical State:**

Colorless to light yellow. Color:

Acrid, amine-like. Odor: **Odor Threshold:** No data available. No data available. pH:

-90 °C (-130 °F) - lit. **Melting Point: Boiling Point:** 142 °C (288 °F) - lit.

-8.89 - 0.00 °C (16 - 32 °F) - closed cup. Flash Point:

No data available. **Auto-ignition temperature:**

0.838 g/cm³ @ 25 °C (77 °F). **Density:**

16 mm Hg @ 4 °C. Vapor Pressure: No data available. **Vapor Density:**

Reacts violently to release flammable gases. Water Solubility:

Section 10. Stability and Reactivity

Reactivity: This product reacts violently with moisture in air, water

> and compounds containing active hydrogen such as alcohols and acids to release highly flammable and toxic

gases.

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

> 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.

Conditions to Avoid: Keep away from moisture, water, heat and sources of

ignition.

Incompatible Materials: Air, moisture, water, strong oxidizing agents.

Section 10. Stability and Reactivity

Hazardous Decomposition Products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products formed under fire conditions: dimethylamine, carbon oxides (CO_X), nitrogen oxides (NO_X) and silicone dioxide. Irritating and potentially toxic fumes 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. In contact with water, product reacts violently to release toxic/flammable gases.

Section 11. Toxicological Information

Information on Toxicological Effects **Acute Toxicity**

Component	CAS No	Result	Species	Dose	Exposure
Tris(dimethylamino)silane	15112-89-7	LD50 Oral	Rat	594 mg/kg	-
		LC50 Inhalation	Rat	0.28 mg/m3	4 h
		LD50 Dermal	Rabbit	477 mg/kg	

Irritation/Corrosion

: No specific data available. Product causes thermal and/or chemical burns to the skin, eyes and exposed mucous membranes.

Sensitization

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

Carcinogenity

IARC : No component of this product present at levels greater

than 0.1% is identified as probable, possible or

confirmed human carcinogen by IARC.

: No component of this product present at levels greater **ACGIH**

than 0.1% is identified as probable, possible or

confirmed human carcinogen by ACGIH.

NTP : No component of this product present at levels greater

than 0.1% is identified as probable, possible or

confirmed human carcinogen by NTP.

: No component of this product present at levels greater **OSHA**

than 0.1% is identified as probable, possible or

confirmed human carcinogen by OSHA.

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Section 11. Toxicological Information

Reproductive Toxicity

Teratogenicity

Specific Target Organ Toxicity (Single Exposure)

Specific Target Organ Toxicity (Repeated Exposure)

Aspiration Hazard

Information on the Likely **Routes of Exposure**

Additional Information

: No specific data available.

: No specific data available.

: Respiratory tract irritation/damage through thermal and

chemical burns.

: No specific data available.

: No specific data available.

: Common routes of exposure: inhalation, dermal (failure to use skin protection), eye (failure to use safety eyewear). Less common: ingestion (failure to employ

recommended hygiene measures (e.g. smoking or eating after handling product without washing hands or using

hand protection).

: To the best of our knowledge, the chemical, physical and toxicological properties of this product have not been thoroughly investigated.

Section 12. Ecological Information

Numerical Measures of Toxicity

Component	CAS No	Test	Species	Dose	Exposure
Dimethylamine	124-40-3	LC50	Rainbow trout	111 - 125 mg/l	96 h
		LC50	Rainbow trout	120 mg/l	96 h (static)
		EC50	Water Flea	88.7 mg/l	48 h

Toxicity to Algae

: No specific data available.

Persistence and Degradability

Biodegradability

Bioaccumulative Potential

Mobility in Soil

Other Adverse Effects

: No specific data available.

: No specific data available.

: No specific data available.

: An environmental hazard cannot be excluded in the

event of unprofessional handling or disposal.

Section 13. Disposal Considerations

Waste Treatment Methods

Product 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 agency

before disposing of any chemicals.

Contaminated Packaging Empty containers retain product residue (liquids, vapors, gases)

and can be dangerous. Dispose of as unused product. DO NOT

EXPOSE EMPTY CONTAINERS TO AIR, MOISTURE, HEAT,

FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

Section 14. Transport Information

	DOT	IMDG	IATA
UN Number	UN 3491	UN 3491	UN 3491
UN Proper	Toxic by inhalation liquid,	TOXIC BY INHALATION,	Toxic by inhalation liquid,
Shipping Name	water-reactive,	WATER-REACTIVE,	water-reactive,
	flammable, n.o.s.	FLAMMABLE, N.O.S.	flammable, n.o.s.
	(Tris(dimethylamino)silan	(Tris(dimethylamino)silan	(Tris(dimethylamino)silan
	e)	e)	e)
Transport	6.1 (4.3, 3)	6.1 (4.3, 3)	6.1 (4.3, 3)
Hazard Classes			
Packing Group			I
Environmental	<u>-</u>	-	_
Hazards	IDGING C	HEMICAI	GAPS
Additional	Poison Inhalation Hazard:	EMS-No: F-G, S-N	IATA Passenger: Not
Information	Hazard Zone B		permitted for transport.
			IATA Cargo: Not
			permitted for transport.

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.

Transporting in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

: Not applicable.

Section 15. Regulatory Information

TSCA (Toxic Substance Control Act):

This product is listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory).

SARA 302 Components

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

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.

SARA 311/312 Hazards

Fire Hazard (Flammable liquid), Reactivity Hazard (In contact with water emits flammable gas), Acute Health Hazard (Acute Toxicity (Oral, Dermal, Inhalation); Skin corrosion or irritation; Serious eye damage or eye irritation).

Massachusetts Right to Know Components

No components are subject to Massachusetts Right to Know Act.

Pennsylvania Right to Know Components

No components are subject to Pennsylvania Right to Know Act.

New Jersey Right to Know Components

No components are subject to New Jersey Right to Know Act.

California Proposition 65 Components

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

Section 16. Other Information

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



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Section 16. Other Information

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



History

Date of Issue/Date of Revision : 11/7/2023

Date of Previous Issue : None.

References : None available.

Abbreviations and Acronyms

ACGIH: American Conference of Governmental Industrial Hygienists.

ATE: Acute Toxicity Estimate

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

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

DOT: US Department of Transportation.

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

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.

NFPA: National Fire Protection Association.

NIOSH: National Institute of Occupational Safety and Health.

NTP: National Toxicology Program.

OECD: Organization for Economic Co-Operation and Development.

OEL: Occupational Exposure Limit.

OSHA: Occupational Safety and Health Administration.

PEL: Permissible Exposure Limits.

REL: Recommended Exposure Limits.

SARA: Superfund Amendments and Reauthorization Act.

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

STOT: Specific Target Organ Toxicity.

TLV: Threshold Limit Values (ACGIH).

TWA: Time Weighted Average.

Section 16. Other Information

Abbreviations and Acronyms (cont.)

VOC: Volatile Organic Compound.

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.

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.

