



# SAFETY DATA SHEET

## Section 1. Identification

**Product Name:** [Bis\(tert-butylimino\)bis\(dimethylamino\)tungsten\(VI\)](#)  
**Product Type:** Liquid  
**CAS Number:** 406462-43-9  
**Product Number:** W2439  
**Recommended Use:** Laboratory chemicals, synthesis of substances.  
**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:** Light yellow to dark orange liquid, amine-like odor.  
**Classification:** FLAMMABLE LIQUIDS - Category 4, H227  
SUBSTANCE AND MIXTURES, WHICH IN CONTACT WITH WATER,  
EMIT FLAMMABLE GASES - Category 1, H260  
SKIN CORROSION/IRRITATION - Category 1B, H314  
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1, H318

### GHS Label Elements

#### Hazard Pictograms:



**Signal Word:** DANGER  
**Hazard Statements:** H227: Combustible liquid.  
H260: In contact with water releases flammable gases which may ignite spontaneously.  
H314: Causes severe skin burns and eye damage.  
H318: Causes serious eye damage.

# Bis(tert-butylimino)bis(dimethylamino)tungsten(VI)

## Safety Data Sheet

### Section 2. Hazards Identification

#### Precautionary Statements

##### 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.

P260: Do not breathe mists, sprays, vapors or gases.

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

P280: Wear protective gloves/ protective clothing/ eye protection/ face protection/hearing protection.

##### Response:

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 + 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 alcohol-resistant foam, dry chemical or carbon dioxide for extinction. DO NOT USE WATER.

##### Storage:

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

P403: Store in a well ventilated place.

P405: Store locked up.

##### Disposal:

P501: Dispose of contents/container in accordance with federal, state and local regulations.

##### OSHA/HCS Status:

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

##### Hazards Not Otherwise Classified (HNOC):

Reacts violently with water.

### Section 3. Composition/Information on Ingredients

##### Synonyms

: BTBMW; TBIDMW;  $((\text{CH}_3)_3\text{CN})_2\text{W}(\text{N}(\text{CH}_3)_2)_2$

##### Formula

:  $\text{C}_{12}\text{H}_{30}\text{N}_4\text{W}$

# Bis(tert-butylimino)bis(dimethylamino)tungsten(VI)

## Safety Data Sheet

### Section 3. Composition/Information on Ingredients

Molecular Weight : 414.23 g/mol

Ingredient Name	%	CAS Number
<a href="#">Bis(tert-butylimino)bis(dimethylamino)tungsten(VI)</a>	≥ 98	406462-43-9

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 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.
- 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 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 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 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 immediate medical help.
- 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.

# Bis(tert-butylimino)bis(dimethylamino)tungsten(VI)

## Safety Data Sheet

### Section 4. First Aid Measures

#### 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 vision and temporary/permanent loss of vision.
- 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.
- 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.
- 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

- Suitable Extinguishing Media:** THE MOST EFFECTIVE FIRE EXTINGUISHING AGENT IS DRY CHEMICAL POWDER PRESSURIZED WITH NITROGEN. Vermiculite, dry sand, dry chemical or carbon dioxide (CO<sub>2</sub>) may also be used. CAUTION: PRODUCT MAY REIGNITE.
- Unsuitable Extinguishing Media:** DO NOT USE WATER OR FOAM as product reacts to produce extremely flammable vapors upon contact with water.
- Unusual Fire and Explosion Hazards:** This material reacts with water and compounds containing active hydrogen such as alcohols and acids to produce flammable liquids and gases.

# Bis(tert-butylimino)bis(dimethylamino)tungsten(VI)

## Safety Data Sheet

### Section 5. Fire Fighting Measures

#### Unusual Fire and Explosion Hazards (cont.):

Compounds containing oxygen or organic halide may also react upon contact with this product to produce flammable liquids and gases. Product runoff to sewer may create a fire or explosion hazard. Vapors and gases produced 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.

#### Product of Combustion:

Products of complete combustion are carbon dioxide (CO<sub>2</sub>), nitrogen oxides and tungsten oxide. Products of incomplete combustion may include dimethylamine and tert-butylamine.

#### 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 sprays, mists, 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.

### 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). Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Prevent the formation and inhalation of mists, sprays, vapors and gases. Provide adequate ventilation. Wear respiratory protection. Put on appropriate personal protective equipment.



# Bis(tert-butylimino)bis(dimethylamino)tungsten(VI)

## Safety Data Sheet

### 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:

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. Prevent the formation and inhalation of sprays and mists. 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. Dispose of collected spillage in accordance with federal, state and local regulations. Contaminated absorbent material may pose the same hazard as the spilled product.

##### Small Spill:

Collect spillage with a dry, absorbent material (e.g. dry sand, 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, absorbent material (e.g. dry sand, 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 moisture sensitive; 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. Prevent the formation and the inhalation of sprays, mists, vapors and gases. Do not ingest. Avoid prolonged exposure. Ensure adequate ventilation.

# Bis(tert-butylimino)bis(dimethylamino)tungsten(VI)

## Safety Data Sheet

### Section 7. Handling and Storage

#### Protective Measures:

Protect against electrostatic discharges. Use explosion-proof electrical/ventilating/lighting/handling equipment. Use non-sparking tools and equipment. 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 moisture sensitive; 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 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

List	Components	CAS-No.	Type	Value
ACGIH	Bis(tert-butylimino)bis(dimethylamino)tungsten(VI)	406462-43-9	TLV	5.0 mg/m <sup>3</sup> as W TWA
			TLV	10.0 mg/m <sup>3</sup> as W STEL
NIOSH	Bis(tert-butylimino)bis(dimethylamino)tungsten(VI)	406462-43-9	REL	5.0 mg/m <sup>3</sup> as W TWA
			REL	10.0 mg/m <sup>3</sup> as W ST

# Bis(tert-butylimino)bis(dimethylamino)tungsten(VI)

## Safety Data Sheet

### Section 8. Exposure Controls/Personal Protection

#### 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.

#### 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 mists, gases, sprays or vapors. 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 liquid splashes, mists, gases or vapors. 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.



# Bis(tert-butylimino)bis(dimethylamino)tungsten(VI)

## Safety Data Sheet

### Section 8. Exposure Controls/Personal Protection

<b>Hand Protection (cont.):</b>	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.
<b>Other Skin Protection:</b>	Appropriate footwear (closed toe) 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.
<b>Respiratory Protection:</b>	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).

### Section 9. Physical and Chemical Properties

<b>Physical State:</b>	Liquid.
<b>Color:</b>	Light yellow to dark orange.
<b>Odor:</b>	Amine-like.
<b>Odor Threshold:</b>	0.24 ppm.
<b>pH:</b>	No data available.
<b>Melting Point:</b>	No data available.
<b>Boiling Point:</b>	81.0 °C (177.8 °F) @ 0.2 mmHg.
<b>Flash Point:</b>	85.0 °C (185 °F).
<b>Auto-ignition Temperature:</b>	No data available.
<b>Specific Gravity:</b>	1.305 g/cm <sup>3</sup> @ 25 °C.
<b>Vapor Pressure:</b>	No data available.
<b>Vapor Density:</b>	No data available.
<b>Water Solubility:</b>	Reacts violently, may ignite upon contact.
<b>Evaporation Rate:</b>	No data available.
<b>Viscosity:</b>	No data available.

# Bis(tert-butylimino)bis(dimethylamino)tungsten(VI)

## Safety Data Sheet

### Section 10. Stability and Reactivity

**Reactivity:**

This product reacts violently with air, water and compounds containing active hydrogen such as alcohols and acids to release flammable gases which may ignite spontaneously.

**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:**

Exposure to water/moisture, heat and sources of ignition (heat, flames, sparks, electrostatic discharge).

**Incompatible Materials:**

Air, water and compounds containing active hydrogen such as alcohols and acids, strong oxidizing agents.

**Hazardous Decomposition Products:**

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products formed under fire conditions: carbon oxides, nitrogen oxides, metal oxide fumes, alkanes and alkenes. 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 releases extremely flammable gases which may ignite spontaneously.

### Section 11. Toxicological Information

**Information on Toxicological Effects****Acute Toxicity**

: No specific data available.

**Irritation/Corrosion**

: No specific data available. May be expected to cause thermal and/or chemical burns to the skin, eyes and exposed mucous membranes.

**Sensitization**

: No specific data available.

**Germ Cell Mutagenicity**

: No specific data available.

**Carcinogenicity****IARC**

: No component of this product present at levels greater than 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH**

: No component of this product present at levels greater than 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.

# Bis(tert-butylimino)bis(dimethylamino)tungsten(VI)

## Safety Data Sheet

### Section 11. Toxicological Information

#### Carcinogenity (cont.)

##### **NTP**

: No component of this product present at levels greater than 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

##### **OSHA**

: No component of this product present at levels greater than 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

##### **Reproductive Toxicity**

: No specific data available.

##### **Teratogenicity**

: No specific data available.

##### **Specific Target Organ Toxicity (Single Exposure)**

: Respiratory tract irritation/damage through thermal and chemical burns.

##### **Specific Target Organ Toxicity (Repeated Exposure)**

: No specific data available.

##### **Aspiration Hazard**

: No specific data available.

##### **Information on the Likely Routes of Exposure**

: 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)).

##### **Additional Information**

: 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**

##### **Toxicity to Fish**

: No specific data available.

##### **Toxicity to Daphnia and Other Aquatic Invertebrates**

: No specific data available.

##### **Toxicity to Algae**

: No specific data available.

#### **Persistence and Degradability**

##### **Biodegradability**

: No specific data available.

##### **Bioaccumulative Potential**

: No specific data available.

##### **Mobility in Soil**

: No specific data available.

##### **Other Adverse Effects**

: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

# Bis(tert-butylimino)bis(dimethylamino)tungsten(VI)

## Safety Data Sheet

### 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 SUCH 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	UN3399	UN3399	UN3399
UN Proper Shipping Name	Organometallic substance, liquid, water-reactive, flammable (Bis(tert-butylimino)bis(dimethylamino)tungsten(VI))	ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE (Bis(tert-butylimino)bis(dimethylamino)tungsten(VI))	Organometallic substance, liquid, water-reactive, flammable (Bis(tert-butylimino)bis(dimethylamino)tungsten(VI))
Transport Hazard Classes	4.3(3)	4.3(3)	4.3(3)
Packing Group	I	I	I
Environmental Hazards	-	-	-
Additional Information	-	EMS-No: F-G, S-N	IATA Passenger: 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.

# Bis(tert-butylimino)bis(dimethylamino)tungsten(VI)

## Safety Data Sheet

### 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.

#### 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 (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

Tungsten

CAS-No.  
7440-33-7

Revision Date  
-

#### 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.)





# Bis(tert-butylimino)bis(dimethylamino)tungsten(VI)

## Safety Data Sheet

### Section 16. Other Information

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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	2
PHYSICAL HAZARD	2

#### History

Date of Issue/Date of Revision : 12/13/2023

Date of Previous Issue : 3/11/2022.

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.

# Bis(tert-butylimino)bis(dimethylamino)tungsten(VI)

## Safety Data Sheet

### Section 16. Other Information

#### Abbreviations and Acronyms (cont.)

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.

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.**

