



NOVA-KEM  
www.nova-kem.com

N115 W19392 Edison Drive, Germantown, WI 53022 USA  
Tel +1(262) 293-0251 • Fax +1(262) 253-1258

## SAFETY DATA SHEET

### SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Tris(dimethylamino)silane**  
FORMULA:  $C_6H_{19}N_3Si$   
CAS NO: 15112-89-7  
SYNONYMS: 3DMAS; N,N,N',N',N'',N'''-Hexamethylsilanetriamine

Intended Use: For R&D use only.

#### MANUFACTURER:

NOVA-KEM  
N115 W19392 EDISON DRIVE  
GERMANTOWN, WI 53022, USA

PHONE: +1 262 293 0251  
FAX: +1 262 253 1258

IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC: 1-800-424-9300  
CHEMTREC INTERNATIONAL: +1 703 741 5500

FOR TECHNICAL INFORMATION CONTACT: +1 262 293 0251

### SECTION 2 HAZARDS IDENTIFICATION

#### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

GHS CLASSIFICATION: Flammable liquids (category 2)  
Substances, which in contact with water, emit flammable gases (Category 2)  
Acute toxicity, Oral (Category 4)  
Acute toxicity, Inhalation (Category 1)  
Acute toxicity, Dermal (Category 3)  
Skin corrosion (Category 1B)  
Serious eye damage (Category 1)  
Acute aquatic toxicity (Category 3)

Pictogram



Signal Word

**DANGER**

#### Hazard Statements

H225	Highly flammable liquid and vapor
H261	In contact with water releases flammable gases
H302	Harmful if swallowed
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H330	Fatal if inhaled
H402	Harmful to aquatic life

## SECTION 2 HAZARDS IDENTIFICATION (Cont.)

#### Precautionary Phrases

P210	Keep away from heat/sparks/open flames/hot surfaces - No smoking
P231 + P232	Handle under inert gas. Protect from moisture
P260	Do not breathe dust/fume/gas/mist/vapors/spray
P280	Wear protective gloves/protective clothing/eye protection/face protection
P284	Wear respiratory protection
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310	Immediately call a POISON CENTER or doctor/physician
P422	Store contents under inert gas

#### OTHER HAZARDS

May be fatal if inhaled. Material is extremely destructive to the tissues of the mucous membranes and upper respiratory tract.

#### NFPA 704 RATINGS (SCALE 0-4):

Health: 3

Flammability: 3

Reactivity: 1

SPECIAL: WATER REACTIVE

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula:  $C_6H_{19}N_3Si$

CHEMICAL NAME	CAS#	PURITY
Tris(dimethylamino)silane	15112-89-7	99+%

## SECTION 4 FIRST AID MEASURES

**GENERAL ADVICE:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**INHALATION:** Move victim into fresh air. If not breathing, give artificial respiration. Seek immediate medical attention.

**EYE EXPOSURE:** Immediately flush eyes with plenty of water for at least 15 minutes. A victim may need help keeping their eyelids open. Seek immediate medical attention. Continue rinsing eyes during transport to hospital.

**SKIN EXPOSURE:** Immediately remove contaminated clothing and shoes. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

**INGESTION:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Seek medical attention.

## SECTION 5 FIREFIGHTING MEASURES

### CONDITIONS OF FLAMMABILITY:

Flammable in the presence of a source of ignition when the temperature is above the flash point. May burn in presence of air, or emit a flammable gas in the presence of water or water vapor. Keep away from heat/sparks/open flame/hot surface/air/water. No smoking.

### EXTINGUISHING MEDIA:

Suitable Use dry chemical  
Unsuitable DO NOT USE WATER!

### HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:

Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides (NOx), silicon oxides

### ADVICE FOR FIRE FIGHTERS

Wear NIOSH-approved self-contained breathing apparatus and full protective clothing for firefighting if necessary. Avoid eye and skin contact. Do not breathe fumes or inhale vapors.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulation to form explosive concentrations. Vapors can accumulate in low areas.

### ENVIRONMENTAL PRECAUTIONS

Prevent further leakage or spillage if safe to do so. Do not allow material to enter drains or streams. Discharge into the environment must be avoided.

### METHODS AND MATERIALS

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Do not flush with water.

## SECTION 7 HANDLING AND STORAGE

### PERSONAL PRECAUTIONS

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.  
Use explosion-proof equipment. Keep away from sources of ignition- no smoking. Prevent buildup of electrostatic charge.

### CONDITIONS FOR SAFE STORAGE

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Never allow product to get in contact with water during storage.

### INCOMPATIBILITIES:

Air and moisture sensitive. Handle and store under inert gas.

## SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

### CONTROL PARAMETERS:

Contains no substances with occupational exposure limit values.

### PERSONAL PROTECTIVE EQUIPMENT

**RESPIRATORY PROTECTION:** Where risk assessment shows air-purifying respirators are appropriate, use a full-face air-purifying respirator with multi-purpose combination or type ABEK 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.

**HAND PROTECTION:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practice. Wash and dry hands.

**EYE/FACE PROTECTION:** Wear tightly fitting chemical safety goggles. Use faceshield (8-inch minimum).

**SKIN PROTECTION:** Complete suit protecting against chemicals. Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**HYGIENE MEASURES:** Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**COLOR AND FORM:** Colorless liquid

**FORMULA MASS:** 161.32g/mol

**ODOR:** Pungent smell

**ODOR THRESHOLD:** No data available

**pH:** Not available

**MELTING POINT/ FREEZING POINT:** -90°C

**BOILING POINT:** 142 °C

**FLASH POINT:** -8.89 - 0.00 °C closed cup

**EVAPORATION RATE:** No data available

**UPPER/LOWER FLAMMABILITY/EXPLOSION LIMITS:** no data available

**VAPOR PRESSURE:** no data available

**VAPOR DENSITY:** no data available

**SPECIFIC GRAVITY:** 0.838 g/cm<sup>3</sup> at 25 °C

**SOLUBILITY IN WATER:** Reacts violently

**PARTITION COEFFICIENT: N-OCTANOL/WATER:** no data available

**AUTO-IGNITION TEMPERATURE:** no data available

**DECOMPOSITION:** No data available

**VISCOSITY:** No data available

## SECTION 10 STABILITY AND REACTIVITY

**REACTIVITY:** No data available

**CHEMICAL STABILITY:** Stable in sealed containers and stored under a dry inert atmosphere.

**POSSIBILITY OF HAZARDOUS REACTION:** Vapors may form explosive mixture with air. Reacts violently with water.

**CONDITIONS TO AVOID:** Heat, flame, and sparks. Extremes of temperature and direct sunlight. Exposure to moisture.

**INCOMPATIBLE MATERIALS:** Exposure to air, moisture, strong oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides (NO<sub>x</sub>), silicon oxides.

## SECTION 11 TOXICOLOGICAL DATA

### ACUTE TOXICITY:

#### Oral LD50

LD50 Oral- rat – 594 mg/kg

Remarks: Lungs, thorax, or respiration: Dyspnea. Gastrointestinal: Other changes. Nutritional and Gross Metabolic: Weight loss or decreased weight gain.

#### Inhalation LC50

LC50 Inhalation- rat – 6h – 38 ppm

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Lacrimation. Behavioral:Ataxia.

Gastrointestinal:Changes in structure or function of salivary glands.

#### Dermal LD50

No data available.

**SKIN CORROSIVE/IRRITANT:** Toxic if absorbed through skin. Causes skin burns.

**SEROUS EYE DAMAGE/IRRITATION:** Causes eye burns.

**RESPIRATORY OR SKIN SENSITIZATION:** May be fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

**GERM CELL MUTAGENICITY:** No data available

**CARCINOGENICITY:** No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed carcinogen by IARC, ACGIH, NTP, OSHA.

**REPRODUCTIVE TOXICITY:** No data available

**STOT-Single Exposure:** No data available  
**STOT-Repeated Exposure:** No data available  
**ASPIRATION HAZARD:** No data available

**SIGNS AND SYMPTOMS OF EXPOSURE:** Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., burning sensation, cough, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting, spasm, inflammation and edema of the larynx, inflammation and edema of the bronchi, pneumonitis.

## SECTION 12 ECOLOGICAL DATA

**TOXICITY:** No data available  
**PERSISTENCE AND DEGRADABILITY:** No data available  
**BIOACCUMULATIVE POTENTIAL:** No data available  
**MOBILITY IN SOIL:** No data available  
**OTHER ADVERSE EFFECTS:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

## SECTION 13 DISPOSAL CONSIDERATIONS

### RECOMMENDED DISPOSAL

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

## SECTION 14 TRANSPORTATION DATA

### DOT, IMDG, and IATA regulated

UN Number: 2924      Class: 3 (8)      Packing group: II  
Proper shipping name: Flammable liquid, corrosive n.o.s. (Tris(dimethylamino)silane)  
Reportable Quantity (RQ): None

## SECTION 15 REGULATORY INFORMATION

### OSHA Hazards:

Flammable liquid, Water reactive, Target Organ Effect, Highly toxic by inhalation, Harmful by ingestion, Toxic by skin absorption, Corrosive.

### SARA 302 Components:

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

### SARA 313 Components:

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313.

### SARA 311/312 Hazards:

Fire Hazard, Reactivity Hazard, Acute Health Hazard, Chronic Health Hazard

### Massachusetts Right To Know Components:

No components are subject to the Massachusetts Right to Know Act

### Pennsylvania Right To Know Components:

Tris(dimethylamino)silane CAS No. 15112-89-7

### New Jersey Right To Know Components:

Tris(dimethylamino)silane CAS No. 15112-89-7

### California Prop. 65 Components:

Tris(dimethylamino)silane

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**

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Nova-Kem makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

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SDS DEPT