



MATERIAL SAFETY DATA SHEET

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Issue Date:

1- Chemical Product Information and Company Identification.

Product Name: : tert-Butyldimethylsilyl Chloride (TBDMS.Cl) GC reference standard, AnStan[®].
Synonym: : tert-Butylchlorodimethylsilane.
Product code: : BS14096.
CAS Number: : 18162-48-6.
Company Name: : Briti Scientific.
Company Address: : Plot No:78/B/13, SY-79,Phase-VI, Jeedimetla,Hyderabad-500 055. Telangana, India.

Section 2- Composition / Information on Ingredients.

CAS No.	Chemical Name	Mol. Formula
18162-48-6	tert-Butylchlorodimethylsilane.	C ₆ H ₁₅ ClSi.

Section 3- Hazards Identification.

Classification

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable solids: Category 2
Skin Corrosion/Irritation: Category 1 A
Serious Eye Damage/Eye Irritation: Category 1
Specific target organ toxicity (single exposure): Category 3
Target Organs - Respiratory system

Label Elements

Signal Word:

Danger

Hazard Statements:

Flammable solid.
Causes severe skin burns and eye damage.
May cause respiratory irritation.





Precautionary Statements

Prevention:

- Do not breathe dust/fume/gas/mist/vapors/spray.
- Wash face, hands and any exposed skin thoroughly after handling.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Use only outdoors or in a well-ventilated area.
- Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- Ground/bond container and receiving equipment.
- Use explosion-proof electrical/ventilating/lighting equipment.

Response:

Immediately call a POISON CENTER or doctor/physician.

Inhalation:

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Skin.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse.

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Ingestion.

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.

Fire

In case of fire: Use CO₂, dry chemical, or foam for extinction.

Storage

Store locked up: Store in a well-ventilated place. Keep container tightly closed.

Disposal: Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC)

Toxic to aquatic life with long lasting effects.

Section 4- First Aid Measures.

General Advice: Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if symptoms occur.





Skin Contact: Wash off immediately with plenty of water for at least 15 minutes.

Get medical attention if symptoms occur.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

Ingestion: Do NOT induce vomiting. Get medical attention.

Most important symptoms and effects: Causes burns by all exposure routes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

Notes to Physician: Treat symptomatically.

Section 5- Fire Fighting Measures.

Suitable Extinguishing Media: CO₂, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable Extinguishing Media: DO NOT USE WATER.

Flash Point: 22 °C / 71.6 °F

Method - No information available.

Autoignition Temperature: 405 °C / 761 °F.

Explosion Limits

Upper No data available

Lower No data available

Sensitivity to Mechanical Impact: No information available.

Sensitivity to Static Discharge: No information available.

Specific Hazards Arising from the Chemical: The product causes burns of eyes, skin and mucous membranes.

Hazardous Combustion Products: Carbon monoxide (CO). Carbon dioxide (CO₂), Chlorine, Silicon dioxide, Hydrogen chloride gas.

Protective Equipment and Precautions for Firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
3	3	1	N/A

Section 6- Accidental Release Measures.

Personal Precautions: Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing.

Environmental Precautions: Do not flush into surface water or sanitary sewer system.

Methods for Containment and Clean Up: Sweep up and shovel into suitable containers for disposal. Avoid dust formation.





Section 7- Handling and Storage.

Handling: Ensure adequate ventilation. Wear personal protective equipment/face protection. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. If swallowed then seek immediate medical assistance. Do not allow contact with water.

Storage: Flammables area. Purge open drums with nitrogen before resealing. Corrosives area. Keep away from water or moist air. Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Bases. Water. Strong oxidizing agents. Alcohols. Amines. Metals.

Section 8- Exposure Control/Personal Protection.

Exposure Guidelines: This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Measures: Use only under a chemical fume hood. Use explosion-proof electrical/ventilating/lighting equipment. Ensure that eyewash stations and safety showers are close to the work station location.

Personal Protective Equipment

Eye/face Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection: Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures:

Handle in accordance with good industrial hygiene and safety practice.

Section 9- Physical and Chemical Properties.

Appearance: White to Almost white powder to crystal.

Odor: No information available.

Odor Threshold: No information available.

pH: No information available.

Melting Point/Range: 88 °C.

Boiling Point/Range: 125 °C.

Flash Point: 22 °C / 71.6 °F.

Evaporation Rate: No information available.

Flammability (solid,gas): Not applicable.

Flammability or explosive limits:

Upper No information available.

Lower No information available.

Vapor Pressure: 2 hPa @ 20 °C.

Density: 0.94 g/cm³.





Solubility:	Soluble in benzene.
Partition coefficient; n-octanol/water:	No data available.
Autoignition Temperature:	405 °C / 761 °F.
Decomposition Temperature:	No data available.
Viscosity;	No data available.
Molecular formula:	C ₆ H ₁₅ ClSi.
Molecular Weight:	150.72 g/mol.

Section 10- Stability and Reactivity.

Reactive Hazard: Yes

Stability: Moisture sensitive.

Conditions to Avoid: Avoid dust formation. Incompatible products. Exposure to moist air or water. Keep away from open flames, hot surfaces and sources of ignition. Exposure to moisture.

Incompatible Materials: Strong oxidizing agents, Bases, Water, Alcohols, Amines, Metals.

Hazardous Decomposition Products: Carbon monoxide (CO), Carbon dioxide (CO₂) Chlorine, Silicon dioxide, Hydrogen chloride.

Hazardous Polymerization: Hazardous polymerization does not occur.

Hazardous Reactions: None under normal processing.

Section 11- Toxicological Information.

Acute Toxicity

Product Information: The toxicological properties have not been fully investigated.

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Silane	LD50 = >2000 mg/kg (Rat)	Not listed	Not listed
chloro(1,1-dimethyleth yl) dimethyl			

Toxicologically Synergistic Products: No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation: Causes burns by all exposure routes.

Sensitization: No information available.

Mutagenic Effects: No information available.

Reproductive Effects: No information available.

Developmental Effects: No information available.

Teratogenicity: No information available.

STOT - single exposure Respiratory system.

STOT - repeated exposure None known

Aspiration hazard: No information available.





Symptoms / effects, both acute and delayed: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

Endocrine Disruptor Information: No information available.

Other Adverse Effects: The toxicological properties have not been fully investigated.

Section 12- Ecological Information.

Ecotoxicity: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Persistence and Degradability: Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation: No information available.

Mobility: Is not likely mobile in the environment.

Section 13- Disposal Considerations.

Waste Disposal Methods: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Section 14- Transport Information.

DOT:

UN-No: UN2921
Proper Shipping Name: CORROSIVE SOLIDS, FLAMMABLE, N.O.S.
Technical Name: Silane, chloro(1,1-dimethylethyl)dimethyl-
Hazard Class: 8
Subsidiary Hazard Class: 4.1
Packing Group: I

TDG

UN-No: UN2921
Proper Shipping Name: CORROSIVE SOLIDS, FLAMMABLE, n.o.s.
Technical Name: Silane, chloro(1,1-dimethylethyl)dimethyl-
Hazard Class: 8
Subsidiary Hazard Class: 4.1
Packing Group: I

IATA

UN-No: UN2921
Proper Shipping Name: Corrosive solid, flammable, n.o.s.
Hazard Class: 8





Subsidiary Hazard Class: 4.1

Packing Group: I

IMDG/IMO:

UN-No: UN2921

Proper Shipping Name: Corrosive solid, flammable, n.o.s.

Hazard Class: 8

Subsidiary Hazard Class: 4.1

Packing Group: I

Section 15- Regulatory Information.

Legend:

TSCA - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA 12(b) - Notices of Export: Not applicable.

U.S. Federal Regulations

SARA 313: Not applicable.

SARA 311/312: Hazard Categories See section 2 for more information.

CWA (Clean Water Act) Not applicable.

Clean Air Act: Not applicable.

OSHA - Occupational Safety and

Health Administration: Not applicable.

CERCLA: Not applicable.

California Proposition 65: This product does not contain any Proposition 65 chemicals

Section 16- Other Information.

Briti Scientific provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

