

Revision number: 3 Revision date: 11/10/2015

# 1. IDENTIFICATION

Product name: Product code: Dichloro(methyl)-n-octylsilane 00265

For laboratory research purposes.

Not for drug or household use.

**TCI AMERICA** 

SAFETY DATA SHEET

Product use: Restrictions on use:

## Company:

TCI America 9211 N. Harborgate Street Portland, OR 97203 U.S.A. Telephone: +1-800-423-8616 / +1-503-283-1681 Fax: +1-888-520-1075 / +1-503-283-1987 e-mail: sales-US@TCIchemicals.com www.TCIchemicals.com

## 2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200:

Eye Damage/Irritation [Category 1] Flammable Liquids [Category 3] Corrosive to Metals [Category 1] Skin Corrosion/Irritation [Category 1B]

Signal word:

Danger!

Hazard Statement(s):

Causes serious eye damage Causes severe skin burns and eye damage Flammable liquid and vapor May be corrosive to metals

## Pictogram(s) or Symbol(s):





Precautionary Statement(s): [Prevention]	Do not breathe dusts or mists. Use only outdoors or in a well-ventilated area. Wear protective gloves, protective clothing, eye protection and face protection. Wear eye protection. Wear face protection (full length face shield). Keep away from heat, sparks, open flames or other hot surfaces No smoking. Keep container tightly closed. Ground or bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting, and equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves, eye protection and face protection. Keep only in original container.
[Response]	If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of fire: Use dry chemical, CO2, water spray or alcohol-resistant foam to extinguish. Absorb spillage to prevent material damage.
[Storage]	Store locked up. Store in a well-ventilated place. Keep cool. Store in corrosive resistant container with a resistant inner liner.
[Disposal]	Dispose of contents and container in accordance with US EPA guidelines for the classification and determination of hazardous waste listed in 40 CFR 261.3. (See Section 13)

Hazards not otherwise classified: [HNOC] May develop pressure

Emergency telephone number:

Chemical Emergencies: TCI America (8:00am - 5:00pm) PST +1-503-286-7624 Transportation Emergencies: Chemtrec 24-Hour +1-800-424-9300 (U.S.A.) +1-703-527-3887 (International) **Responsible department:** TCI America Environmental Health Safety and Security +1- 503-286-7624

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Components: Percent: CAS Number: Molecular Weight: Chemical Formula:	Substance Dichloro(methyl)-n-octylsilane >97.0%(GC) 14799-93-0 227.24 $C_9H_{20}Cl_2Si$
Synonyms:	n-Octylmethyldichlorosilane
4. FIRST-AID MEASURES	
4. FIRST-AID MEASURES	
Inhalation:	Immediately call a poison center or doctor. Effects of exposure (inhalation) to substance may be delayed. Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Skin contact:	For severe burns, immediate medical attention is required. Immediately call a poison center or doctor. Remove and wash contaminated clothing before re-use. Remove and isolate contaminated clothing and shoes. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Eye contact:	IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Eye contact with vapors or substance may cause severe injury, burns, or death. Call emergency medical service. Move victim to fresh air. Check for and remove any contact lenses. Keep victim warm and quiet. Treat symptomatically and supportively. Effects of exposure to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Ingestion:	Do not induce vomiting with out medical advice. Call a physician or Poison Control Center immediately. Do not use mouth-to-mouth method if victim ingested the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Loosen tight clothing such as a collar, tie, belt or waistband. If a person vomits place them in the recovery position so that vomit will not reenter the mouth and throat. Rinse mouth. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Symptoms/effects:	
Acute: Delayed:	Pain. Redness. No data available
Immediate medical attention:	WARNING: It might be hazardous to the person providing aid to give mouth-to-mouth respiration, because the inhaled material is corrosive. For severe burns, immediate medical attention is required. If breathing has stopped, perform artificial respiration. Use first aid treatment according to the nature of the injury. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
5. FIRE-FIGHTING MEASURES	
Suitable extinguishing media:	Dry chemical, $CO_2$ or water spray. Consult with local fire authorities before attempting large scale fire fighting operations.
Specific hazards arising from the chemic Hazardous combustion products: Other specific hazards:	al These products include: Carbon oxides Halogenated compounds Silicates WARNING: Highly toxic HCl gas is produced during combustion.

## Special precautions for fire-fighters:

Use water spray or fog; do not use straight streams. Dike fire-control water for later disposal; do not scatter the material. CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient. Do not use straight streams. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Move containers from fire area if you can do it without risk. Special protective equipment for fire-fighters:

Wear positive pressure self-contained breathing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.

# 6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Avoid contact with skin, eyes, and clothing. Keep people away from and upwind of spill/leak. Use spark- proof tools and explosion-proof equipment. Remove all sources of ignition. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (Section 8). Warn unnecessary personnel to move away. Stop leak if you can do it without risk. Ensure adequate ventilation. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
Personal protective equipment:	Wear eye protection (splash goggles) and face protection (full length face shield). Lab coat. Vapor respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves (nitrile).
Emergency procedures:	Isolate area until gas has dispersed. In case of a spill and/or a leak, always shut off any sources of ignition, ventilate the area, and excercise caution. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Warn personnel to move away. Prevent entry into sewers, basements or confined areas; dike if needed.

## Methods and materials for containment and cleaning up:

ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). All equipment used when handling the product must be grounded. Stop leak if without risk. Ventilate the area. Absorb with an inert material and put the spilled material in an appropriate waste disposal container. Use clean non-sparking tools to collect absorbed material.

## **Environmental precautions:**

Prevent further leakage or spillage if safe to do so. Water runoff can cause environmental damage. Prevent entry into sewers, basements or confined areas; dike if needed.

7. HANDLING AND STORAGE	
Precautions for safe handling:	Do NOT breath gas, fumes, vapor, or spray. Manipulate under an adequate fume hood. Avoid contact with skin and eyes. Keep away from heat and sources of ignition. Use explosion-proof equipment. Use only non-sparking hand tool when handling this product. Ground all equipment containing material. Take measures to prevent build up of electrostatic charge. May corrode metallic surfaces. Good general ventilation should be sufficient to control airborne levels. Keep container dry. Handle and open container with care. Wear suitable protective clothing, gloves and eye/face protection. When using do not eat, drink, or smoke. Keep away from sources of ignition.
Conditions for safe storage:	Keep containers tightly closed in a cool, well-ventilated place. Keep away from sources of ignition. Store and use away from heat, sparks, open flame, or any other ignition source. Store in corrosive resistant container with a resistant inner liner. Store locked up. Keep away from incompatibles. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid prolonged storage periods. Store under inert gas (e.g. Argon). Moisture sensitive.
Storage incompatibilities:	Bases, Combustible substances, Store away from oxidizing agents

# 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits: No data available

## Appropriate engineering controls:

...

Good general ventilation should be sufficient to control airborne levels. Ventilation is normally required when handling or using this product. Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance. Follow safe industrial engineering/laboratory practices when handling any chemical.

Personal protective equipment	
Respiratory protection:	Vapor respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent.
Hand protection:	Wear protective gloves.
Eye protection:	Splash goggles.
Skin and body protection:	Lab coat.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C):	Liquid
Form:	Clear
Color:	Colorless - Reddish yellow
Odor:	No data available
Odor threshold:	No data available

Conditions to avoid:       Exposure to moisture. Mois Strong oxidizing agents No data available         Incompatible materials:       No data available         Acute Toxicity:       No data available         Serious eye damage/irritation:       No data available         Respiratory or skin sensitization:       No data available         Germ cell mutagenicity:       No data available         Carcinogenicity:       No data available         IARC:       No data available         IARC:       No data available         Reproductive toxicity:       No data available         Routes of Exposure:       Inhalation, Eye contact, Ing         Skin contact may produce burns. Skin contact may result in inflammation contact can result in corneal damage or blindness.         Potential Health Effects:       No specific information available; skin and eye contact may result in irrial	Page 4
boiling point/range:       234°C (453°F)         becomposition temperature:       No data available         bartition coefficient:       No data available         control coefficient:       No data available         bartition coefficient:       No data available         composition temperature:       No data available         bartition coefficient:       Corrodes in contact with m Moisture sensitive.         bartition:       No data available         bartition coefficient::       In use, may form flammability:         bartitions to avoid:       Exposure to moisture. Mois         bartiazardous Decomposition Products:       No data	pH: No data available
-octanol/water (log Pow) lash point: 43°C (109°F) lammability (solid, gas): No data available olubility(ies): 0. STABILITY AND REACTIVITY leactivity: Corrodes in contact with m Moisture sensitive. In use, may form flammability of Hazardous Reactions: In use, may form flammability ionditions to avoid: Exposure to moisture. Mois compatible materials: Strong oxidizing agents lazardous Decomposition Products: No data available 1. TOXICOLOGICAL INFORMATION cute Toxicity: lo data available kin corrosion/irritation: lo data available rerous eye damage/irritation: lo data available tespiratory or skin sensitization: lo data available term cell mutagenicity: lo data available term cell mutagenicity: lo data available terrous of Exposure: Inhalation, Eye contact, Ing ymptoms related to exposure: kin contact may produce burrns. Skin contact may result in inflammatio ontact can result in corneal damage or blindness. otential Health Effects: lo specific information available; skin and eye contact may result in irrital	Vapor pressure:0.79kPa/76°CVapor density:>1Dynamic Viscosity:No data available
Iammability (solid, gas):       No data available         isolubility(ies):       Corrodes in contact with m         Ideactivity:       Corrodes in contact with m         isolubility of Hazardous Reactions:       In use, may form flammability         isonditions to avoid:       Exposure to moisture. Mois         isonditions to avoid:       In use, may form flammability         iconditions to avoid:       Strong oxidizing agents         iconditions to avoid:       No data available         iconditions to avoid:       No data available         iconditions to avoid:       No data available         iconditions to available       No data available         ido data available       In use, may form flammability         ido data available       In use, may form flammability         ido data available       No data available         ido data available       In use, may form flammability         ido data available       In use of the productive toxicity:         ido data available       In use of the productive toxicity:         ido data available       Inhalation, Eye contact, log promotors related to exposur	Evaporation rate: No data available (Butyl Acetate = 1)
A. STABILITY AND REACTIVITY         Reactivity:       Corrodes in contact with m         Chemical Stability:       Noisture sensitive.         Dossibility of Hazardous Reactions:       In use, may form flammabile         Sconditions to avoid:       In use, may form flammabile         neompatible materials:       Strong oxidizing agents         No data available       No data available         Acute Toxicity:       No data available         Skin corrosion/irritation:       No data available         Serious eye damage/irritation:       No data available         Serious eye damage/irritation:       Strong oxidizing agents         No data available       Serious eye damage/irritation:         So data available       Inhalation, Eye contact, Ing         Serious eye damage/irritas	Autoignition temperature:       No data available         Flammability or explosive limits:       Lower:       1.1%
10. STABILITY AND REACTIVITY         Reactivity:       Corrodes in contact with m         Chemical Stability:       Noisture sensitive.         Dossibility of Hazardous Reactions:       In use, may form flammabile         Sconditions to avoid:       In use, may form flammabile         neompatible materials:       Strong oxidizing agents         No data available       No data available         Acute Toxicity:       No data available         Skin corrosion/irritation:       No data available         Serious eye damage/irritation:       No data available         Carcinogenicity:       No data available         Carcinogenicity:       No data available         Carcinogenicity:       No data available         Na data available       Inhalation, Eye contact, Ing         Carcinogenicity:       No data available         No data available       Inhalation, Eye contact, Ing         Symptoms related to exposure:       Inhalation, Eye contact, Ing	Upper: No data available
Reactivity:       Corrodes in contact with m         Chemical Stability:       Moisture sensitive.         Possibility of Hazardous Reactions:       In use, may form flammability         Conditions to avoid:       Exposure to moisture. Moistance on source on source.         Itazardous Decomposition Products:       No data available         Itazardous Decomposition Products:       No data available         Itazardous Decomposition Products:       No data available         Itazardous Que damage/irritation:       No data available         Reform cell mutagenicity:       Respiratory or skin sensitization:         No data available       Serious eye damage/irritation:         No data available       Serious eyee damage/irritation:         No data available       Serious eyee damage/irritation:         No data available       Serious eyeeeiii (intoriii);         No da	
Chemical Stability:       Moisture sensitive.         Possibility of Hazardous Reactions:       In use, may form flammable         Conditions to avoid:       Exposure to moisture. Moisture sensitive.         In compatible materials:       Strong oxidizing agents         No data available       No data available         In corrosion/irritation:       No data available         Skin corrosion/irritation:       Strong oxidizing agents         No data available       Skin corrosion/irritation:         No data available       Strong oxidizing agents         Serious eye damage/irritation:       No data available         Serious eye damage/irritation:       No data available         Respiratory or skin sensitization:       No data available         Serm cell mutagenicity:       No data available         Carcinogenicity:       No data available         IARC:       No data available         Carcinogenicity:       No data available         Reproductive toxicity:       No data available         Routes of Exposure:       Inhalation, Eye contact, Ing         Symptoms related to exposure:       Skin contact may result in inflammation ontact can result in corneal damage or blindness.         Yotential Health Effects:       No specific information available; skin and eye contact may result in irrial	
Acute Toxicity: No data available Skin corrosion/irritation: No data available Serious eye damage/irritation: No data available Respiratory or skin sensitization: No data available Serm cell mutagenicity: No data available Carcinogenicity: No data available IARC: No data available IARC: Indata available Routes of Exposure: Skin contact may produce burns. Skin contact may result in inflammation iontact can result in corneal damage or blindness. Potential Health Effects: No specific information available; skin and eye contact may result in inriat	e/explosive vapor-air mixture.
lo data available kin corrosion/irritation: lo data available erious eye damage/irritation: lo data available respiratory or skin sensitization: lo data available form cell mutagenicity: lo data available farcinogenicity: lo data available IARC: No data available IARC: No data available NTP: No dat reproductive toxicity: lo data available Inhalation, Eye contact, Ing symptoms related to exposure: kin contact may produce burrns. Skin contact may result in inflammation ontact can result in corneal damage or blindness. Totential Health Effects: lo specific information available; skin and eye contact may result in irritat	
lo data available  erious eye damage/irritation: lo data available  respiratory or skin sensitization: lo data available  erm cell mutagenicity: lo data available  erarcinogenicity: lo data available  IARC: No data available  IARC: No data available  Reproductive toxicity: lo data available  Routes of Exposure: Inhalation, Eye contact, Ing Symptoms related to exposure: kin contact may produce burrns. Skin contact may result in inflammation ontact can result in corneal damage or blindness.  Potential Health Effects: lo specific information available; skin and eye contact may result in irritate	
lo data available Respiratory or skin sensitization: lo data available Germ cell mutagenicity: lo data available Carcinogenicity: lo data available IARC: No data available IARC: No data available IARC: No data available IARC: No data available IARC: Inhalation, Eye contact, Ing Symptoms related to exposure: Skin contact may result in inflammation ontact can result in corneal damage or blindness. Potential Health Effects: lo specific information available; skin and eye contact may result in irriat	
lo data available Germ cell mutagenicity: lo data available Carcinogenicity: lo data available IARC: No data available IARC: No data available NTP: No dat Reproductive toxicity: lo data available Routes of Exposure: Symptoms related to e	
lo data available Carcinogenicity: Io data available IARC: No data available IARC: No data available Reproductive toxicity: Io data available Routes of Exposure: Inhalation, Eye contact, Ing Symptoms related to exposure: Skin contact may produce burrns. Skin contact may result in inflammation ontact can result in corneal damage or blindness. Potential Health Effects: Io specific information available; skin and eye contact may result in irritat	
No data available IARC: No data available IARC: No data available Reproductive toxicity: No data available Routes of Exposure: Symptoms related to exposure: Skin contact may produce burrns. Skin contact may result in inflammation contact can result in corneal damage or blindness. Potential Health Effects: No specific information available; skin and eye contact may result in irritat	
IARC: No data available NTP: No dat Reproductive toxicity: lo data available Routes of Exposure: Inhalation, Eye contact, Ing Symptoms related to exposure: Skin contact may produce burrns. Skin contact may result in inflammation ontact can result in corneal damage or blindness. Potential Health Effects: Io specific information available; skin and eye contact may result in irritat	
Reproductive toxicity: lo data available Routes of Exposure: Symptoms related to exposure: Skin contact may produce burrns. Skin contact may result in inflammation ontact can result in corneal damage or blindness. Potential Health Effects: lo specific information available; skin and eye contact may result in irritat	
No data available Routes of Exposure: Symptoms related to exposure: Skin contact may produce burrns. Skin contact may result in inflammation contact can result in corneal damage or blindness. Potential Health Effects: No specific information available; skin and eye contact may result in irritat	a available <b>OSHA:</b> No data available
Symptoms related to exposure: Skin contact may produce burrns. Skin contact may result in inflammation contact can result in corneal damage or blindness. Potential Health Effects: No specific information available; skin and eye contact may result in irriat	
ontact can result in corneal damage or blindness. Potential Health Effects: Io specific information available; skin and eye contact may result in irriat	
Farget organ(s):     No data available	n; characterized by itching, scaling, reddening, or occasionally blistering. Eye ation. May be harmful if inhaled or ingested.
12. ECOLOGICAL INFORMATION	
Ecotoxicity Fish: No data available	

No data available No data available No data available Fish: Crustacea: Algae:

**TCI AMERICA** 

# 12. ECOLOGICAL INFORMATION

Persistence and degradability: Bioaccumulative potential (BCF): Mobillity in soil:	No data available No data available No data available
Partition coefficient: n-octanol/water (log Pow)	No data available
Soil adsorption (Koc): Henry's Law: constant (PaM³/mol)	No data available No data available

Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains, water ways, or the soil.
Dispose of as unused product. Do not re-use empty containers.
Observe all federal, state and local regulations when disposing of the substance.

# 14. TRANSPORT INFORMATION

DOT (US) UN number: UN2986	<b>Proper Shipping Name:</b> Chlorosilanes, corrosive, flammable, n.o.s.	<b>Class or Division:</b> 8 Corrosive material	<b>Subrisk(s):</b> 3 Flammable liquid	Packing Group:
IATA UN number: UN2986	<b>Proper Shipping Name:</b> Chlorosilanes, corrosive, flammable, n.o.s.	Class or Division: 8 Corrosive material	<b>Subrisk(s):</b> 3 Flammable liquid	Packing Group: II
IMDG UN number: UN2986	<b>Proper Shipping Name:</b> Chlorosilanes, corrosive, flammable, n.o.s.	Class or Division: 8 Corrosive material	<b>Subrisk(s):</b> 3 Flammable liquid	Packing Group: II

HMIS Classification:

## F-E, S-C

# 15. REGULATORY INFORMATION

**Toxic Substance Control Act (TSCA 8b.):** This product is ON the EPA Toxic Substances Control Act (TSCA) inventory.

# **US Federal Regulations**

EmS number:

CERCLA Hazardous substance and Reportable Quantity:		
SARA 313:	Not Listed	
SARA 302:	Not Listed	

State Regulations

State Right-to-Know

Massachusetts	Not Listed
New Jersey	Not Listed
Pennsylvania	Not Listed
California Proposition 65:	Not Listed

## Other Information

### **NFPA Rating:**

Health:	2	Health:	3
Flammability:	2	Flammability:	2
Instability:	1	Physical:	1

International Inventories

#### **TCI AMERICA**

## Page 6 of 6

### 15. REGULATORY INFORMATION

WHMIS hazard class:	E: Corrosive material.
	B2: Flammable Liquid.
Canada: NDSL	On NDSL
EC-No:	238-863-2

## 16. OTHER INFORMATION

## Revision date: 11/10/2015

#### Revision number: 3

TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.