

SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Diisopropylaminotrichlorosilane**
FORMULA: $C_6H_{14}Cl_3NSi$
CAS NO: 18146-02-6
SYNONYMS: Silanamine, 1,1,1-trichloro-N,N-bis(1-methylethyl)-
Intended Use: For R&D use only.

MANUFACTURER:

WONIK MATERIALS NORTH AMERICA, LLC.
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: +1-703-741-5971
FOR TECHNICAL INFORMATION CONTACT: +1 262 293 0251

SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

GHS CLASSIFICATION:
Flammable liquids (category 3)
Skin corrosion (Category 1B)
Serious eye damage (Category 1)

Pictogram



Signal Word

DANGER

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

Hazard Statements

H226	Flammable liquid and vapor
H314	Causes severe skin burns and eye damage

Precautionary Phrases

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P233	Keep container tightly closed
P240	Ground and bond container and receiving equipment
P241	Use explosion-proof electrical/ventilating/lighting equipment
P242	Use non-sparking tools.
P243	Take action to prevent static discharges
P260	Do not breathe dust/fume/gas/mist/vapours/spray
P264	Wash hands thoroughly after handling
P280	Wear protective gloves/protective clothing/eye protection/face protection
P284	Wear respiratory protection
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303 + P355 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
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
P403 + P235	Store in a well-ventilated place. Keep cool

OTHER HAZARDS

Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Skin	May be harmful if absorbed through skin. Causes skin burns.
Eyes	Causes eye burns.
Ingestion	May be harmful if swallowed.

NFPA 704 RATINGS (SCALE 0-4):

Health: 3

Flammability: 3

Reactivity: 2

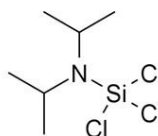
SPECIAL: WATER REACTIVE

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: $C_6H_{14}Cl_3NSi$

Molecular Weight: 234.63 g/mol

Synonyms: Silanamine, 1,1,1-trichloro-N,N-bis(1-methylethyl)-



CHEMICAL NAME	CAS#
Diisopropylaminotrichlorosilane	18146-02-6

Diisopropylaminotrichlorosilane

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 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. Seek medical attention.

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 SECTION 4 FIRST AID MEASURES

CONDITIONS OF FLAMMABILITY:

Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface/air/water. No smoking.

EXTINGUISHING MEDIA:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:

Hazardous decomposition products formed under fire conditions: HCl, diisopropylamine, silicon dioxide, nitrogen oxides, carbon dioxide.

ADVICE FOR FIRE FIGHTERS

Wear NIOSH-approved self-contained breathing apparatus for firefighting if necessary. Use water spray to cool unopened containers.

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.

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).

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Avoid inhalation of vapor or mist.

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.

Recommended storage temperature 2 – 8 °C.

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: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Colorless liquid

FORMULA MASS: 234.63 g/mol

ODOR: No data available

ODOR THRESHOLD: No data available

pH: No data available

MELTING POINT/ FREEZING POINT: 15 - 18 °C

BOILING POINT: 205°C at 1atm; 75°C at 12 torr

FLASH POINT: No data available

EVAPORATION RATE: No data available

UPPER/LOWER FLAMMABILITY/EXPLOSION LIMITS: No data available

VAPOR PRESSURE: 1 torr at 29 °C

VAPOR DENSITY: No data available

SPECIFIC GRAVITY: No data available

SOLUBILITY IN WATER: Reacts

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

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

POSSIBILITY OF HAZARDOUS REACTION: No data available **CONDITIONS TO**

AVOID: Heat, flame, and sparks.

INCOMPATIBLE MATERIALS: Strong oxidizing agents, strong acids, strong bases

HAZARDOUS DECOMPOSITION PRODUCTS: Hazardous decomposition products formed under fire conditions: HCl, diisopropylamine, silicon dioxide, nitrogen oxides, carbon dioxide.

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: No data available.

SKIN CORROSIVE/IRRITANT: No data available.

SEROUS EYE DAMAGE/IRRITATION: No data available.

RESPIRATORY OR SKIN SENSITIZATION: No data available.

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

SECTION 11 TOXICOLOGICAL DATA (Cont.)

POTENTIAL HEALTH EFFECTS:

Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Skin	May be harmful if absorbed through skin. Causes skin burns.
Eyes	Causes eye burns.
Ingestion	May be harmful if swallowed.

SIGNS AND SYMPTOMS OF EXPOSURE: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

Spasm, inflammation and edema of the larynx and bronchi, pneumonitis, pulmonary edema, burning sensation, cough, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting

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: No data available

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

UN Number: 2986 Class: 8 (3) Packing group: II

Proper shipping name: Chlorosilanes, corrosive, flammable, n.o.s. (Diisopropylaminotrichlorosilane)

Reportable Quantity (RQ): None

DOT, IMDG, and IATA regulated

SECTION 15 REGULATORY INFORMATION

OSHA Hazards:

Combustible liquid, 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, Acute Health Hazard

Massachusetts Right To Know Components:

No components are subject to the Massachusetts Right to Know Act

Pennsylvania Right To Know Components:

No components are subject to the Pennsylvania Right to Know Act

Diisopropylaminotrichlorosilane

SECTION 15 REGULATORY INFORMATION (Cont.)

New Jersey Right To Know Components:

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

California Prop. 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

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Wonik Materials North America, LLC 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.

DATE PREPARED: 02/2019 Rev. 1

SDS DEPT