

SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Hexafluorodisilane**

FORMULA: F₆Si₂

CAS NO: 13830-68-7

CHEMICAL USE: Research and Development

SYNONYMS: Disilane, 1, 1, 1, 2, 2, 2-hexafluoro-; Disilicon hexafluoride

MANUFACTURER:

Wonik Materials North America
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IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC 1-703-741-5500

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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Pictogram



Signal Word

Danger

Hazard Statements

H314	Causes severe skin burns and eye damage
H332	Harmful if inhaled
H331	Toxic if inhaled

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

Precautionary Phrases

Hexafluorodisilane

P262	Do not get in eyes, on skin, or on clothing.
P231 + P232	Handle under inert gas. Protect from moisture.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P304 + P312	IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse SKIN with water/shower.

HMIS CLASSIFICATION:

Health: 4

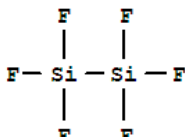
Flammability:0

Reactivity: 2

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: F₆Si₂

Molecular Weight: 170.1614



CHEMICAL NAME	CAS#	%
Hexafluorodisilane	13830-68-7	95
Tetrafluorosilane	7783-61-1	5

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

SKIN EXPOSURE: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

INHALATION: Move exposed person to fresh air. If not breathing, if breathing is irregular or is respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

INGESTION: As this product is a gas, refer to the inhalation section.

SECTION 5 FIREFIGHTING MEASURES

EXTINGUISHING MEDIA:

Suitable Dry Powder

Unsuitable

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:

Hazardous decomposition products formed under fire conditions- hydrogen fluoride, silicon oxides

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Reacts violently with water.

Avoid moisture and exposure to moisture.

SECTION 5 FIREFIGHTING MEASURES (Cont.)

ADVICE FOR FIRE FIGHTERS

Apply water from a safe distance to cool container and protect surrounding area. If involved in a fire, shut off flow immediately if it can be done without risk.

Contains gas under pressure. In a fire or if heated, a pressure increase will occur and the container may burst or explode.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Reacts with water to form hydrogen fluoride fumes.
Wear respiratory protection.
Avoid breathing gas vapors.
Ensure adequate ventilation.
Evacuate personnel to safe areas.

ENVIRONMENTAL PRECAUTIONS

Prevent further leakage or spillage if safe to do so.
Do not let product enter drains.

METHODS AND MATERIALS

Soak up with inert absorbent material and dispose of as hazardous waste.
Do not flush with water.
Keep in suitable, closed containers for disposal.

SECTION 7 HANDLING AND STORAGE

PERSONAL PRECAUTIONS

Avoid contact with skin and eyes.
Avoid inhalation of vapor or mist.
Handle under chemical fume hood only.
Handle under inert gas only.

CONDITIONS FOR SAFE STORAGE

Contents under pressure. High pressure gas. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over.

OTHER HANDLING AND STORAGE INFORMATION

Soak up with inert absorbent material and dispose of as hazardous waste.
Do not flush with water.
Keep in suitable, closed cylinders for disposal.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EYE PROTECTION: Tightly fitting safety goggles. Faceshield (8-inch minimum). Do not wear contact lenses.

SKIN PROTECTION: Handle with rubber, neoprene or nitrile gloves. Gloves must be inspected prior to use. Use the proper glove removal technique. Dispose of contaminated gloves after use in accordance with the applicable laws and good laboratory practices. Wash and dry hands after contact. Complete suit protecting against chemicals. The protective equipment must be selected according to the concentration and the amount of the dangerous substance at the workplace.

VENTILATION: Perform all work in a chemical fume hood under inert atmosphere.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION (Cont.)

RESPIRATOR: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (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.

ADDITIONAL PROTECTION: Emergency eyewash and shower.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Clear colorless gas
pH: Not available
FREEZING POINT: -18.7 deg C
BOILING POINT: -18.5 deg C
VAPOR PRESSURE: 58.4 psi @ 26.6 deg C
SPECIFIC GRAVITY: 1.28 g/mL (Liquid), 7.75 g/L (gas)
SOLUBILITY IN WATER: Reacts with water
PARTITION COEFFICIENT: Not available
VAPOR DENSITY: Not available
ODOR: Suffocating Odor
ODOR THRESHOLD: Not available
EVAPORATION RATE: Not available

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Unstable above 73 deg C
HAZARDOUS POLYMERIZATION:
CONDITIONS TO AVOID: Avoid moisture and exposure to moisture.
INCOMPATIBILITY: Water, moisture, strong oxidizing agents
MATERIALS TO AVOID: Alkali metals, water, calcium oxide, oxidizing agents, acids, bases, and alcohols.

SECTION 11 TOXICOLOGICAL DATA

INHALATION: Maybe fatal if inhaled. Extremely irritating to mucous membranes and respiratory tract. May cause throat irritation, coughing, choking sensation, chills, bronchospasm, laryngospasm, chest pain, permanent lung damage, pulmonary edema, and death.
SKIN CONTACT: Causes chemical burns; pain may be delayed. Skin burns may result in the absorption of potentially harmful amounts of materials.
EYE CONTACT: Causes chemical burns to eye tissue.
CHRONIC EXPOSURE: May cause bronchitis, nasal congestion, and fluorosis. May injure the cornea of the eye.

SECTION 12 ECOLOGICAL DATA

TOXICITY: Not known
PERSISTENCE AND DEGRADABILITY: Not known
BIOACCUMULATIVE POTENTIAL: Not known
MOBILITY AND SOIL: Not known
PBT AND vPvB ASSESMENT: Not known
OTHER ADVERSE EFFECTS: Water hazard class 2 (self assessment); hazardous for water
ECOLOGICAL INFORMATION: May be hazardous to aquatic life. Do not allow product to reach ground water, water course or sewage system. Do not allow product to be released to the environment without proper governmental permits

SECTION 13 DISPOSAL CONSIDERATIONS

DISPOSAL OF PACKAGING: Disposal must be made according to official regulations

SECTION 14 TRANSPORTATION DATA

Liquefied gas, toxic, corrosive, n.o.s. (Hexafluorodisilane)
Inhalation hazard Zone C
Class 2.3 Subclass 8
UN3308
PG: N/A (Gas)

IATA and ICAO Forbidden
DOT and IMDG Regulated

SECTION 15 REGULATORY INFORMATION

OSHA HAZARDS

None of the chemicals in this product are considered highly hazardous by OSHA

TSCA

CAS # 13830-68-7 is not listed on the TSCA inventory. It is for research and development use only.

CLEAN AIR ACT:

CAS #13830-68-7 is not listed.

CLEAN WATER ACT:

CAS # 13830-68-7 is not listed.

SARA 302/304/311/312 COMPONENTS

No products were found

SARA 313 COMPONENTS

No products were found.

STATE

CAS # 13830-68-7 could not be found.

CALIFORNIA PROP 65

None of the chemicals in this product are listed.

SECTION 16 OTHER INFORMATION

CAS: Chemical Abstract Service
DOT: Department of Transportation
EPA: Environmental Protection Agency
IARC: International Agency for the Research on Cancer
IATA: International Air Transport Association
IMDG: International Maritime Code for Dangerous Goods
OSHA: Occupational Safety and Health Administration
SDS: Safety Data Sheet
TSCA: Toxic Substances Control Act

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