

# MATERIAL SAFETY DATA SHEET

For R&D use only. Not for drug, household or other uses.

Click <http://www.lookchem.com/cas-169/16961-83-4.html> for suppliers of this product.

## Composition/Information on Ingredient

**Cas:**  
16961-83-4  
**Code:**  
M

**RTECS:**  
VV8225000  
**Code:**  
M

**Name:**  
HYDROFLUOSILICIC ACID

**Other REC Limits:**  
N/P

**OSHA PEL:**  
2.5 MM/CUM AS (F)  
**Code:**  
M

**OSHA STEL:**

**Code:**

**ACGIH TLV:**  
2.5 MM/CUM AS (F)  
**Code:**  
M

**ACGIHSTEL:**  
N/P  
**Code:**

## Control Measures

**Respiratory Protection:**  
USE NIOSH/MSHA APPROVED RESPIRATOR FOR VAPORS/MIST IF ABOVE TLV/PEL.

**Ventilation:**  
PROVIDE MECHAN(GEN/LOCAL EXHAUST)VENT TO MAINTN  
**Protective Gloves:**  
RUBBER/NEOPRENE

**Eye Protection:**  
PROTECTIVE SHIELD

**Other Protective Equipment:**  
Equipment PROTECTIVE CLOTHING;EYE-WASH.

**Work Hygienic Practices:**  
AVOID CONTACT WITH EYES AND SKIN;DO NOT BREATHE VAPORS MIST.

**Supplemental Safety and Health:**  
N/P

## Health Hazards Data

**LD50LC50Mixture:**  
N/K

**Route Of Entry Inds - Inhalation:**  
YES

**Skin:**  
YES

**Ingestion:**  
YES

**Carcinogenicity Inds - NTP:**  
N/P

**IARC:**  
N/P

**OSHA:**  
N/P

**Health Hazards Acute And Chronic:**  
ACUTE:CORROSIVE TO ALL BODY TISSUES;SEVERE IRRITATION OF EYES AND SKIN;SKIN & EYE ULCERATION;BLISTERING OF SKIN;IRRITATING TO RESPIRATORY AND G.I. TRACTS;COUGHING,HEADACHE,NAUSEA,SHOCK PULMONARY EDEMA .  
CHRONIC:FLUORISIS,CAN LEAD TO COMA, OR DEATH.

**Explanation Of Carcinogenicity:**  
N/K 2

**Signs And Symptions Of Overexposure:**  
CORROSIVE.CAUSE BURNING OR ULCERATION;ABDOMINAL PAIN,VOMITING,SHOCK,MAYBE DEATH.

**Medical Cond Aggravated By Exposure:**  
PRE-EXISTING CONDITIONS MAY BE WORSEN.

**First Aid:**  
EYE:FLUSH W/COPIOUS AMOUNT OF WATER;SKIN:WASH WITH SOAP & WATER;INHALE:REMOVE TO FRESH AIR,GIVE ARTIFICIAL RESPIRATION IF NEEDED;ING:GIVE LARGE AMOUNTS OF WATER OR MILK.DO NOT INDUCE VOMITING.GET MEDI CAL ATTN.

**Spill Release Procedures:**  
COVER WITH SODIUM CARBONATE OR AN EQUAL MIXTURE OF SODA ASH & SLAKED LIME. AFTER MIXING, ADD WATER IF NECESSARY TO FORM A SLURRY.

**Neutralizing Agent:**  
N/P

**Waste Disposal Methods:**  
ADD SLOWLY TO A LARGE AMT OF SODA ASH & SLAKED LIME BY STIRRING. DISCHARGE SOLN WITH LARGE QTY WATER INTO A SINK LINED WITH PROTECTIVE MATTING & FILLED WITH COARSE CHIPPED MARBLE.

**Handling And Storage Precautions:**  
KEEP IN TIGHTLY CLOSED CONTAINERS IN A COOL PLACE. LOOSEN CLOSURE CAUTIOUSLY

**Other Precautions:**  
N/P

## Fire and Explosion Hazard Information

**Flash Point Method:**  
N/P

**Flash Point:**

**Flash Point Text:**  
NONE

**Autoignition Temp:**

**Autoignition Temp Text:**  
N/K 3

**Lower Limits:**  
N/K

**Upper Limits:**  
N/K

**Extinguishing Media:**  
USE AGENT SUITABLE FOR SURROUNDING FIRE.

**Fire Fighting Procedures:**  
WEAR CHEMICAL PROTECTIVE SUIT WITH SELF CONTD BRTHG APP.

**Unusual Fire/Explosion Hazard:**  
EMITS TOXIC FUMES WHEN HEATED OR REACTING WITH WATER. FUMES EMITTED ARE ALSO CORROSIVE

## Physical/Chemical Properties

**HCC:**  
C1

**NRC/State LIC No:**  
N/R

**Net Prop WT For Ammo:**

**Boiling Point:**

**B.P. Text:**  
233F/105C

**Melt/Freeze Pt:**

**M.P/F.P Text:**  
N/A

**Decomp Temp:**

**Decomp Text:**  
N/A

**Vapor Pres:**  
218

**Vapor Density:**  
N/K

**Volatile Org Content %:**

**Spec Gravity:**  
1.2

**VOC Pounds/Gallon:**

**PH:** 1.0

**VOC Grams/Liter:**

**Viscosity:**  
N/P

**Evaporation Rate & Reference:**  
N/K

**Solubility in Water:**  
COMPLETE

**Appearance and Odor:**  
WATER WHITE TO STRAW COLORED.LIQUID,PUNGENT ODOR

**Percent Volatiles by Volume:**  
N/K

**Corrosion Rate:**  
N/P

## Reactivity Data

**Stability Indicator:**  
YES

**Stability Condition To Avoid:**  
TEMP ABOVE 90C:TO THIN,ADD ACID TO WATER,NEVER WATER TO ACID

**Materials To Avoid:**  
STRONG ALKALIES,CHLORITES,PROXIDES,ATTACH GLASS STONEWARE

**Hazardous Decomposition Products:**  
TOXIC CORROSIVE FUMES OF FLUORIDES.

**Hazardous Polymerization Indicator:**  
NO

**Conditions To Avoid Polymerization:**  
N/P

## Toxicological Information

**Information:**N/P

## MSDS Transport Information

**Information:**N/P

## Regulatory Information

**Sara Title III Information:** N/P

**Federal Regulatory Information:** N/P

**State Regulatory Information:** N/P

## Other Information

**Other Information:**N/P