

## 1 - Product and Company Information

ProductName NONAFLUOROBUTANESULFONIC ANHYDRIDE, 97%

## 2 - Hazards Identification

### SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT

Reacts violently with water. Causes burns.

## 3 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I
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NONAFLUOROBUTANE SULFONIC ANHYDRIDE	36913-91-4	253-270-9	None
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Formula C8F18O5S2	Molecular Weight 582.2 AMU
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## 4 - First Aid Measures

### AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

### AFTER SKIN CONTACT

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

### AFTER EYE CONTACT

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

### AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician. Do not induce vomiting.

## 5 - Fire Fighting Measures

### EXTINGUISHING MEDIA

Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

Unsuitable: Do not use water.

### SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

Water reactive material.

### SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

## 6 - Accidental Release Measures

### PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area.

### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

### METHODS FOR CLEANING UP

Cover with dry lime or soda ash, pick up, keep in a closed container, and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

## 7 - Handling and Storage

### HANDLING

Directions for Safe Handling: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

### STORAGE

Conditions of Storage: Keep tightly closed. Store in a cool dry place.

Incompatible Materials: Do not allow contact with water

Store at 2-8°C

### SPECIAL REQUIREMENTS: Handle and store under inert gas.

## 8 - Exposure Controls / Personal Protection

### ENGINEERING CONTROLS

Safety shower and eye bath. Use only in a chemical fume hood.

### GENERAL HYGIENE MEASURES

Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.

### PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (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.

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

Special Protective Measures: Faceshield (8-inch minimum).

## 9 - Physical and Chemical Properties

Appearance	Physical State: Liquid
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Property	Value	At Temperature or Pressure
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pH	N/A	
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BP/BP Range	84 °C	
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MP/MP Range	N/A	
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Flash Point	N/A	
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Flammability	N/A	
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Autoignition Temp	N/A	
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Oxidizing Properties	N/A	
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Explosive Properties	N/A	
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Explosion Limits	N/A	
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Vapor Pressure	N/A	
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Partition Coefficient	N/A	
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Viscosity	N/A	
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Vapor Density	N/A	
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Saturated Vapor Conc.	N/A	
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Evaporation Rate	N/A	
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Bulk Density	N/A	
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Decomposition Temp.	N/A	
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Solvent Content	N/A	
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Water Content	N/A	
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Surface Tension	N/A	
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Conductivity	N/A	
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Miscellaneous Data	N/A	
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Solubility	N/A	
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## 10 - Stability and Reactivity

### STABILITY

Stable: Stable.

Conditions to Avoid: Do not allow water to enter container because of violent reaction.

Materials to Avoid: Strong oxidizing agents.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Sulfur oxides, Hydrogen fluoride.

### HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

## 11 - Toxicological Information

### SIGNS AND SYMPTOMS OF EXPOSURE

Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema.

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

### ROUTE OF EXPOSURE

Skin Contact: Causes burns.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: Causes burns.

Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion: May be harmful if swallowed.

### ECOLOGICAL INFORMATION

### GENERAL HYGIENE MEASURES

Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.

### PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Use respirators and components tested and

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Saturated Vapor Conc.	N/A	
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Decomposition Temp.	N/A	
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Solvent Content	N/A	
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Surface Tension	N/A	
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Conductivity	N/A	
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