



**Prolonged (Chronic) Health Effects**

## Carcinogenicity:

This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA or NTP, or ACGIH.

Reproductive and Developmental Toxicity: No data.

Sensitization: Not a sensitizer.

Inhalation: Prolonged or repeated exposure may cause more serious irritation.

Skin Contact: Prolonged or repeated skin exposure will aggravate symptoms described above.

Skin Absorption: Not considered a problem.

Ingestion: Chronic ingestion unlikely.

General : Not considered a toxic hazard.

Chronic Target Organ Toxicity: No data

Supplemental Health Hazard Information:

No additional health information available.

**4. First Aid**

Inhalation: Remove individual to fresh air. If not breathing, give artificial respiration or oxygen as appropriate. Seek medical attention if breathing becomes difficult.

Skin Contact: Flush skin with water for 15 minutes and remove contaminated clothing. Wash clothing before reuse.

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids apart.

Ingestion: Not a likely cause of problems. Do not induce vomiting if the person is conscious. Consult a physician. Never give anything by mouth to an unconscious person.

**5. Fire Fighting Measures****Flammability Summary (OSHA):**

Not flammable.

Flammable Properties:

Flash Point: None

Autoignition Temperature: None

Upper Flammable/Explosive Limit, % in air: Not applicable

Lower Flammable/Explosive Limit, % in air: Not applicable

Extinguishing Media:

Use equipment appropriate to the main source of the fire.

Do not allow contaminated water to enter sewers or waterways.

Fire Fighting Instructions:

Use equipment appropriate to the main source of the fire.

Hazardous Combustion Products:

Oxides of carbon and fluorine.

**6. Accidental Release Measures****Personal Protection for Emergency Situations:**

Contain the release and eliminate its source if this can be done safely.

**Spill Mitigation Procedures**

Air Release:

Low vapor pressure makes air release unlikely.

Water Release:

This material is soluble in water. Contain all liquid for treatment and/or disposal as a (potential) hazardous waste. Notify all downstream users of possible contamination.

Land Release:

Create a dike or trench to contain materials. Absorb spill with inert material (e.g., dry sand, clay, earth or commercial absorbent), then place in a chemical waste container. Decontaminate all clothing and the spill area using a detergent and flush with large amounts of water. Contain all contaminated water for disposal and/or treatment.

Additional Spill Information:

Stop source of spill as soon as possible and notify appropriate personnel.

## 7. Handling and Storage

### Handling:

Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash with water. Avoid breathing vapor, mist or gas. Do not contaminate product by returning unused portion to container. Rinse empty container with water to flush out residue.

### Storage

No restrictions on storage location.

### Shelf Life Limitations:

See label or certificate of analysis for shelf life if applicable.

### Incompatible Materials for Storage:

May etch or dissolve common metals. Do not store in metal container.

## 8. Exposure Controls and Personal Protection

Ventilation: Normal workplace ventilation is deemed adequate in typical use situations.

Protective Equipment for Routine Use of Product Where Appropriate:

Respiratory Protection: Not considered necessary under normal use conditions.

Respirator Type(s): Not required.

Skin: Wear waterproof gloves during extended contact.

Eyes: Use safety glasses where splashing is possible.

Protective Clothing Type: Impervious butyl rubber apron, boots or suit, as appropriate.

Exposure Limit Data : See Section II

Chemical Name NIOSH Level Immediately Dangerous to Life or Health:  
Not found

## 9. Physical Data

Physical State: Liquid  
Color: Colorless to slightly yellow  
Odor: Slight, characteristic

Molecular Weight: Not appropriate.  
pH (@ 25 Deg. C): Slightly acid in water.  
Octanol/Water Coeff: No data

Solubility in Water: 100%  
Bulk Density: Not applicable  
Specific Gravity: Approx. 1.0

Vapor Density (Air = 1): Not determined  
Vapor Pressure 20°C: Not determined  
Evaporation Rate (Butyl acetate =1): Not determined  
Volatiles % by vol.: Approx. 95  
Boiling Point @ 20 mm Hg: Approx. 100°C.  
Freezing Point: Approx 0°C.

## 10. Stability and Reactivity

### Stability and Reactivity Summary:

Stable under normal conditions.

### Reactive Properties:

Sensitivity to mechanical shock: None  
Hazardous Polymerization: Will not occur  
Conditions to Avoid: High temperature storage.  
Chemical Incompatibility: No hazardous incompatibilities known.

Incompatible materials: May etch most metals on extended contact.

Hazardous Decomposition Product: Oxides of carbon and fluorine.

Decomposition Temperature: No data  
Product May Be Unstable At Temperatures Above: No data

**11. Toxicological Information**

**Component Animal Toxicology**

N/A

**Skin Irritation:**

This material is expected to be slightly to moderately irritating, but not a sensitizer.

**Eye Irritation:**

This material is expected to be moderately irritating.

**Reproductive and Developmental Toxicity:**

No data.

Inhalation: No data.

**Mutagenicity:**

Not known or reported to be mutagenic.

**Carcinogenicity:**

This chemical is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP, or EPA.

**12. Ecological Information**

**Ecological Toxicity Values:**

Environmental fate: Considered readily biodegradable.

Environmental Toxicity: No data.

**13. Disposal Considerations**

**Waste Disposal Summary:**

Product has none of the characteristics of a hazardous waste.

**Potential US EPA Waste Codes:**

None

**Disposal Methods:**

Disposed of in accordance with local, state and federal regulations.

**Components subject to land ban restrictions:**

No data

**14. Transportation Information**

Proper Shipping Name, Hazard Class, UN/NA Number Packing Group, Emergency Response Guide Number	
	Not regulated
Labels required per 49 CFR 172.101:	None
Size for "Limited quantity" per 49 CFR 173.150-.155:	Not applicable
Reportable Quantity ("RQ") per 49 CFR172.101:	None
Passenger and Cargo Air & Rail (172.101):	No restrictions
Eff. Jan 1, 2001 Cargo only:	No restrictions
Vessel Stowage:	No restrictions

**15. Regulatory Information**

**United States:**

Toxic Substances Control Act (TSCA):

The components of this product are listed on the TSCA Inventory of Existing Chemical Substances.

Pesticide acceptance indication: US EPA Registration Number:

Not applicable

Superfund Amendments and Reauthorization Act (SARA) Title III:

See Section II of this MSDS.

Hazard Categories Sections 311/312 (40 CFR 370.2):

Health:

Acute	Yes	Fire:	No	Pressure:	No
Chronic	No	Reactivity:	No		

Physical: None

Emergency Planning & Community Right to Know (40 CFR 355, App. A):

Extremely Hazardous Substance Section 302 - Threshold Planning Quantity:

Not applicable

Reportable Quantity (40 CFR 302.4):

None

Supplier Notification Requirements (40 CFR 372.45), 313 Reportable Components

See Section II of this MSDS.

State Right-to-Know Regulations Status of Ingredients

Pennsylvania: No information

New Jersey: No information

Massachusetts: No information

## 16. Additional Information

This Material Safety data sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. The information in this MSDS should be provided to all who will use, handle, store transport or otherwise be exposed to this product. We believe this information to be reliable and up to date as of its publication date, but make no warrantee that it is. If this MSDS is more than 3 years old you should contact the supplier to make certain that the information is still current.

MSDS data source:: Alfa-Aesar MSDS prepared by: R. Miller 800-342-3577, USA