

MATERIAL SAFETY DATA SHEET

Section 1 - Product and Company Information

Product Name: 4,4-Difluoro-but-2-enoic acid
Product Number: 05R0817
Company: J & W PharmLab, LLC
Street Address: 3930 Nebraska Ave
City, State, Zip, Country: Levittown, PA 19056, USA
Phone: 1.215.945.6595
Fax: 1.215.945.6597

Section 2 - Composition/Information on Ingredient

CAS # : [37759-73-2] **Formula:** C4H4F2O2

Section 3 - Hazards Identification

Emergency Overview: Irritating to eyes and respiratory system. Lachrymator.
For additional information on toxicity, please refer to Section 11.



Warning

Section 4 - First Aid Measures

Oral Exposure: If swallowed, wash out mouth with water provided person is conscious. Call a physician.
Inhalation Exposure: If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.
Dermal Exposure: In case of contact, immediately wash skin with soap and copious amounts of water.
Eye Exposure: Assure adequate flushing of the eyes by separating the eyelids with fingers.

Section 5 - Fire Fighting Measures

Flash Point: N/A
Autoignition Temperature: N/A
Flammability: N/A
Extinguishing Media: Water spray. Carbon dioxide, dry chemicals powder, or appropriate foam.
Firefighting: *Protective Equipment:* Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. *Specific Hazard(s):* Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

Procedure(s) of personal Precaution(s): Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.
Methods for Cleaning up: Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling: User Exposure: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.
Storage: Suitable: Keep tightly closed.

Section 8 - Exposure Controls / PPE

Engineering Controls: Safety shower and eye bath. Mechanical exhaust required.
Personal Protective Equipment: *Respiratory:* Government approved respirator. *Hand:* Compatible chemical-resistant gloves. *Eye:* Chemical safety goggles.
General Hygiene Measures: Wash thoroughly after handling. Wash contaminated clothing before reuse.

Section 9 - Physical/Chemical Properties

Appearance Form: White Solid
Molecular Weight: 122.07
Melting/Boiling Point: N/A

Section 10 - Stability and Reactivity

Stability: *Materials to avoid:* Acids, Bases, Oxidizing agents Reducing agents.
Hazardous Decomposition Products: carbon monoxide, carbon dioxide, hydrogen fluoride/gas

Section 11 - Toxicological Information

Route of Exposure: *Multiple Routes:* Harmful if swallowed, inhaled, or absorbed through skin. High concentrations are extremely destructive to tissues of the mucous membranes and upper respiratory tract, eyes, and skin.
Signs and Symptoms of Exposure: Material is destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation: Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT:Not regulated **TDG:**Not regulated
IATA:Not regulated **IMDG/IMO:**Not regulated

Section 15 - Regulatory Information

Not available

Section 16 - Other Information

Disclaimer: For R&D use only. Not for drug, household or other uses.
Warranty: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. J & W PharmLab, LLC, shall not be held liable for any damage resulting from handling or from contact with the above product.