MATERIAL SAFETY DATA SHEET

Section 1 - Product and Company In formation

Product Name: Toluene-4-sulfonic acid 2,2-difluoro-vinyl ester Product Number: 03R0480 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 #: [185739-14-4] Formula: C9H8F2O3S

Section 3 - Hazards Identification

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



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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 i s 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. **Store at 4°C**

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: Yellow Oil Molecular Weight: 234.22 Melting/Boiling Point:

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 con tact with the above product.