

MATERIAL SAFETY DATA SHEET

Section 1 - Chemical Product and Company Identification

MSDS Name: Diethyl ether-d10, 99 atom% d
Catalog Numbers: AC134450000, AC134450010
Synonyms: Ether-d10; Ethyl ether-d10
Company Identification: Acros Organics BVBA
Janssen Pharmaceuticaalaa 3a
2440 Geel, Belgium
Company Identification: (USA) Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410
For information in the US, call: 800-ACROS-01
For information in Europe, call: +32 14 57 52 11
Emergency Number, Europe: +32 14 57 52 99
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300
CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#: 2679-89-2
Chemical Name: Diethyl ether-d10
%:
EINECS#: 220-235-4

Hazard Symbols: F+



Risk Phrases: 12 19

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Extremely flammable. Hygroscopic (absorbs moisture from the air). Target Organs: Central nervous system.

Potential Health Effects

Eye: Causes eye irritation.
Skin: May cause skin irritation. Prolonged and/or repeated contact may cause defatting of the skin and dermatitis. May be absorbed through the skin. May cause skin burns.
Ingestion: Aspiration hazard. Symptoms may include: headache, excitement, fatigue, nausea, vomiting, stupor, and coma. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.
Inhalation: Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. May cause respiratory tract irritation. May cause narcotic effects in high concentration. May cause respiratory failure possibly leading to death. May cause seizures and blood abnormalities.
Chronic: Prolonged or repeated skin contact may cause defatting and dermatitis. Prolonged or

repeated exposure can cause psychic abnormalities such as anxiety, depression and excitability.

Section 4 - First Aid Measures

- Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
- Skin:** Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.
- Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Possible aspiration hazard. Get medical aid immediately.
- Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
- Notes to Physician:**

Section 5 - Fire Fighting Measures

- General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Extremely flammable liquid and vapor. Containers may explode in the heat of a fire. May form explosive peroxides.
- Extinguishing Media:** Use water spray to cool fire-exposed containers. Water may be ineffective. Use dry chemical, carbon dioxide, or alcohol-resistant foam.
- Autoignition:** Not available
- Temperature:**
- Flash Point:** -40 deg C (-40.00 deg F)
- Explosion:** Not available
- Limits: Lower:**
- Explosion:** Not available
- Limits: Upper:**
- NFPA Rating:** NFPA Rating:

Section 6 - Accidental Release Measures

- General Information:** Use proper personal protective equipment as indicated in Section 8.
- Spills/Leaks:** Avoid runoff into storm sewers and ditches which lead to waterways. Remove all sources of ignition. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Do not use combustible materials such as sawdust.

Section 7 - Handling and Storage

- Handling:** Use spark-proof tools and explosion proof equipment. Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. If peroxide formation is suspected, do not open or move container.
- Storage:** Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Refrigerator/flammables.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:
Use explosion-proof ventilation equipment. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA -
Final PELs			

-----|
| Diethyl ether-d10 |none listed |none listed |none
listed |

+-----+-----+-----+
+-----+

OSHA Vacated PELs: Diethyl ether-d10: None listed

Personal Protective Equipment

- Eyes:** Wear safety glasses and chemical goggles if splashing is possible.
- Skin:** Wear impervious gloves.
- Clothing:** Wear appropriate protective clothing to prevent skin exposure.
- Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

- Physical State:** Liquid
- Color:** Clear
- Odor:** Not available
- pH:** Not available
- Vapor Pressure:** Not available
- Vapor Density:** Not available
- Evaporation Rate:** Not available
- Viscosity:** Not available
- Boiling Point:** Not available
- Freezing/Melting Point:** Not available
- Decomposition Temperature:** Not available
- Solubility in water:** Not available
- Specific Gravity/Density:**
- Molecular Formula:** C4D10O
- Molecular Weight:** 84.20

Section 10 - Stability and Reactivity

- Chemical Stability:** Not available
- Conditions to Avoid:** Ignition sources, exposure to moist air or water.
- Incompatibilities with Other Materials:** Not available
- Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide.
- Hazardous Polymerization:** Will not occur.

Section 11 - Toxicological Information

- RTECS#:** CAS# 2679-89-2: None listed
- LD50/LC50:** RTECS: Not available.
- Carcinogenicity:** Diethyl ether-d10 - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
- Epidemiology:** Not available
- Teratogenicity:** Not available
- Reproductive:** Not available
- Neurotoxicity:** Not available
- Mutagenicity:** Not available
- Other:** Not available

Section 12 - Ecological Information

- Ecotoxicity:** Not available

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. RCRA P-Series: None listed. RCRA U-Series: None listed.

Section 14 - Transport Information

US DOT

Shipping Name: Please contact Fisher Scientific for shipping information

Hazard Class:

UN Number:

Packing Group:

Canada TDG

Shipping Name: Not available

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

US Federal

TSCA

CAS# 2679-89-2 is not listed on the TSCA Inventory. It is for research and development use only.

Health & Safety Reporting List None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules None of the chemicals in this product are under a Chemical Test Rule.

Section 12b None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances None of the chemicals in this product have a TPQ.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act: This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.

Clean Water Act: None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

STATE Diethyl ether-d10 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: F+

Risk Phrases:

R 12 Extremely flammable.

R 19 May form explosive peroxides.

Safety Phrases:

S 9 Keep container in a well-ventilated place.

S 16 Keep away from sources of ignition - No smoking.

S 29 Do not empty into drains.

S 33 Take precautionary measures against static discharges.

WGK (Water Danger/Protection)

CAS# 2679-89-2: Not available

Canada

Canadian WHMIS Classifications: B2, D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 2679-89-2 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: 9/02/1997

Revision #3 Date 10/03/2005

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.