

# Material Safety Data Sheet

## 1,3-Butadiene diepoxide, 98+%

ACC# 99491

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** 1,3-Butadiene diepoxide, 98+%

**Catalog Numbers:** AC330070000, AC330070050, AC330070250

**Synonyms:** 2,2'-Bioxirane; 1,2:3,4-Diepoxybutane.

**Company Identification:**

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01

**For emergencies in the US, call CHEMTREC:** 800-424-9300

### Section 2 - Composition, Information on Ingredients

| CAS#      | Chemical Name           | Percent | EINECS/ELINCS |
|-----------|-------------------------|---------|---------------|
| 1464-53-5 | 1,3-Butadiene diepoxide | > 98    | 215-979-1     |

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

**Appearance:** colorless liquid. Flash Point: 45 deg C.

May cause allergic respiratory and skin reaction. Cancer suspect agent.

**Target Organs:** Respiratory system, skin.

#### Potential Health Effects

**Eye:** Causes eye irritation.

**Skin:** Causes skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. Toxic in contact with skin.

**Ingestion:** May cause irritation of the digestive tract. Poison by ingestion.

**Inhalation:** Causes respiratory tract irritation. Toxic if inhaled. May cause nausea, dizziness, and headache.

**Chronic:** Cancer suspect agent.

### Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin:** Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:** Get medical aid immediately. Wash mouth out with water.

**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:** Treat symptomatically and supportively.

### 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. Flammable liquid and vapor.

**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or chemical foam.

**Flash Point:** 45 deg C ( 113.00 deg F)

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:**Not available.

**Upper:** Not available.

**NFPA Rating:** Not published.

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool.

### Section 7 - Handling and Storage

**Handling:** Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Use only in a chemical fume hood.  
**Storage:** Store in a tightly closed container. Refrigerator/flammables.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

| Chemical Name           | ACGIH       | NIOSH       | OSHA - Final PELs |
|-------------------------|-------------|-------------|-------------------|
| 1,3-Butadiene diepoxide | none listed | none listed | none listed       |

**OSHA Vacated PELs:** 1,3-Butadiene diepoxide: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Not available.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**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

**Appearance:** colorless

**Odor:** Not available.

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 56 - 58 deg C @ 25.

**Freezing/Melting Point:** 2 - 4 deg C

**Decomposition Temperature:** Not available.

**Solubility:** Not available.

**Specific Gravity/Density:** 1.1130g/cm<sup>3</sup>

**Molecular Formula:** Not available.

**Molecular Weight:** 86.09

## Section 10 - Stability and Reactivity

**Chemical Stability:** Not available.

**Conditions to Avoid:** Incompatible materials.

**Incompatibilities with Other Materials:** Oxidizing agents, acids, bases.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Has not been reported

## Section 11 - Toxicological Information

### RTECS#:

**CAS#** 1464-53-5: EJ8225000

### LD50/LC50:

**CAS#** 1464-53-5:

Draize test, rabbit, eye: 3 ppm/3D;

Draize test, rabbit, skin: 5 mg/24H Severe;

Inhalation, rat: LC50 = 90 ppm/4H;

Oral, mouse: LD50 = 72 mg/kg;

Oral, rat: LD50 = 78 mg/kg;

Skin, rabbit: LD50 = 89 uL/kg;

### Carcinogenicity:

**CAS#** 1464-53-5:

- **ACGIH:** Not listed.
- **California:** carcinogen, initial date 1/1/88
- **NTP:** Suspect carcinogen
- **IARC:** Not listed.

**Epidemiology:** No data available.

**Teratogenicity:** No data available.

**Reproductive Effects:** No data available.

**Mutagenicity:** No data available.

**Neurotoxicity:** No data available.

**Other Studies:**

## Section 12 - Ecological Information

No information 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:**

CAS# 1464-53-5: waste number U085 (Ignitable waste, Toxic waste).

## Section 14 - Transport Information

|                       | US DOT   | Canada TDG                |
|-----------------------|--|---------------------------|
| <b>Shipping Name:</b> | DOT regulated - small quantity provisions apply (see 49CFR173.4) | No information available. |
| <b>Hazard Class:</b>  |  |                           |
| <b>UN Number:</b>     |  |                           |
| <b>Packing Group:</b> |  |                           |

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 1464-53-5 is listed on the TSCA inventory.

#### Health & Safety Reporting List

CAS# 1464-53-5: Effective 10/4/82, Sunset 10/4/92

#### 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

CAS# 1464-53-5: 10 lb final RQ; 4.54 kg final RQ

#### SARA Section 302 Extremely Hazardous Substances

CAS# 1464-53-5: 500 lb TPQ

#### Section 313

This material contains 1,3-Butadiene diepoxide (CAS# 1464-53-5, > 98%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

#### 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:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 1464-53-5 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

#### California Prop 65

**The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act:**

WARNING: This product contains 1,3-Butadiene diepoxide, a chemical known to the state of California to cause cancer.

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:

T

#### Risk Phrases:

R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

R 36/37/38 Irritating to eyes, respiratory system and skin.

R 40 Limited evidence of a carcinogenic effect.

R 42/43 May cause sensitization by inhalation and skin contact.

#### Safety Phrases:

S 23 Do not inhale gas/fumes/vapour/spray.

S 24 Avoid contact with skin.

S 45 In case of accident or if you feel unwell. seek medical advice

immediately (show the label where possible).

**WGK (Water Danger/Protection)**

CAS# 1464-53-5: No information available.

**Canada - DSL/NDSL**

CAS# 1464-53-5 is listed on Canada's NDSL List.

**Canada - WHMIS**

WHMIS: Not available.

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.

**Canadian Ingredient Disclosure List**

CAS# 1464-53-5 is listed on the Canadian Ingredient Disclosure List.

|  |
|--|
| <b>Section 16 - Additional Information</b> |
|--|

**MSDS Creation Date:** 3/09/1998

**Revision #4 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 Fisher 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 Fisher has been advised of the possibility of such damages.*