

# Material Safety Data Sheet

## 1,2-Dibromoethylene, 98%, mixture of cis and trans

ACC# 31035

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** 1,2-Dibromoethylene, 98%, mixture of cis and trans

**Catalog Numbers:** AC112800000, AC112800250

**Synonyms:** Acetylene dibromide

**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
540-49-8	1,2-Dibromoethylene, mixture of cis and trans	98	208-747-6

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: clear, colorless clear liquid.

**Danger!** Toxic. Causes severe eye and skin irritation with possible burns. Lachrymator (substance which increases the flow of tears). Harmful if swallowed. May cause severe digestive tract irritation with possible burns. May cause severe respiratory tract irritation with possible burns.

**Target Organs:** No data found.

#### Potential Health Effects

**Eye:** Lachrymator (substance which increases the flow of tears). Causes severe eye irritation and possible burns.

**Skin:** Causes severe skin irritation and possible burns.

**Ingestion:** Harmful if swallowed. May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns. Ingestion of large amounts may cause CNS depression.

**Inhalation:** Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. May cause burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

**Chronic:** Narcotic in high concentrations.

### Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed.

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

**Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Induce vomiting only when instructed to do so by a physician.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

**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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

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

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

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

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 0

### Section 6 - Accidental Release Measures

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

**Spills/Leaks:** Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Do not use combustible materials such as sawdust. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Use only in a chemical fume hood. Discard contaminated shoes. Do not breathe vapor.

**Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances. Keep containers tightly closed.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
1,2-Dibromoethylene, mixture of cis and trans	none listed	none listed	none listed

**OSHA Vacated PELs:** 1,2-Dibromoethylene, mixture of cis and trans: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

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

**Clothing:** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Clear liquid

**Appearance:** clear, colorless

**Odor:** None reported.

**pH:** Not available.

**Vapor Pressure:** 21 mm Hg @ 26 deg C

**Vapor Density:** 6.41

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 110 deg C @ 754.00mmHg

**Freezing/Melting Point:** -53 deg C

**Decomposition Temperature:** Not available.

**Solubility:** practically insoluble

**Specific Gravity/Density:** 2.2460g/cm<sup>3</sup>

**Molecular Formula:** C<sub>2</sub>H<sub>2</sub>Br<sub>2</sub>

**Molecular Weight:** 185.85

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Incompatible materials, excess heat.

**Incompatibilities with Other Materials:** Strong oxidizing agents, strong bases, magnesium.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide, hydrogen bromide, bromide fumes.

**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

### RTECS#:

**CAS#** 540-49-8: KV7700000

### LD50/LC50:

Not available.

Oral, rat: LD50 = 117

### Carcinogenicity:

CAS# 540-49-8: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information found

**Teratogenicity:** No information found

**Reproductive Effects:** No information found

**Mutagenicity:** Mutation in Microorganisms: Salmonella typhimurium = 100 ug/plate.

**Neurotoxicity:** No information found

**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. No information available.

**Environmental:** Will rapidly volatilize or leach in soil, hydrolysis not expected to be an important process. Will volatilize and may hydrolyze from water, but not expected to significantly adsorb to suspended solids. Not expected to bioconcentrate in aquatic organisms. Photolysis in the atmosphere is not expected, however this substance will degrade due to reaction with photochemically produced hydroxy radicals and by reaction with ozone in the atmosphere.

**Physical:** Half life for volatilization from water: 4.2 hours. Half life for degradation in the atmosphere: 1.9 days.

**Other:** None.

## 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	Canada TDG
<b>Shipping Name:</b>	DOT regulated - small quantity provisions apply (see 49CFR173.4)	TOXIC LIQUID ORGANIC NOS (1,2-DIBROMOETHYLENE)
<b>Hazard Class:</b>		6.1
<b>UN Number:</b>		UN2810
<b>Packing Group:</b>		III

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 540-49-8 is listed on the TSCA inventory.

#### 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 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# 540-49-8 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:

T

#### Risk Phrases:

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

R 20 Harmful by inhalation.

#### Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

### WGK (Water Danger/Protection)

CAS# 540-49-8: No information available.

**Canada - DSL/NDSL**

CAS# 540-49-8 is listed on Canada's NDSL List.

**Canada - WHMIS**

This product has a WHMIS classification of D1B, E.

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**

Section 16 - Additional Information
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**MSDS Creation Date:** 9/02/1997

**Revision #6 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.*