

# Material Safety Data Sheet

## 1,2-Diaminopropane, P.A.

ACC# 95645

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** 1,2-Diaminopropane, P.A.

**Catalog Numbers:** AC219480000, AC219485000

**Synonyms:** 1,2-Propanediamine; Propylenediamine

**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 |
|---------|--------------------|---------|---------------|
| 78-90-0 | 1,2-Diaminopropane | ca 100  | 201-155-9     |

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: clear, colorless liquid. Flash Point: 33 deg C.

**Danger!** Corrosive. Causes eye and skin burns. **Flammable liquid and vapor.** Harmful if absorbed through the skin. May cause severe respiratory tract irritation with possible burns. May cause severe digestive tract irritation with possible burns. Hygroscopic (absorbs moisture from the air).

**Target Organs:** None.

#### Potential Health Effects

**Eye:** Causes eye burns. Causes redness and pain.

**Skin:** Harmful if absorbed through the skin. Causes skin burns.

**Ingestion:** May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns.

**Inhalation:** May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. Causes chemical burns to the respiratory tract. Vapors may cause dizziness or suffocation.

**Chronic:** No information found.

### Section 4 - First Aid Measures

**Eyes:** Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).

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

**Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**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 breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

**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. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Combustion generates toxic fumes. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Will burn if involved in a fire. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire. Flammable liquid and vapor. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

**Extinguishing Media:** For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. If water is the only media available, use in flooding amounts. Do NOT get water inside containers. For large fires, use water spray, fog or alcohol-resistant foam. Do NOT use straight streams of water.

**Flash Point:** 33 deg C ( 91.40 deg F)

**Autoignition Temperature:** 360 deg C ( 680.00 deg F)

**Explosion Limits, Lower:** 2.20 vol %

**Upper:** 11.10 vol %

**NFPA Rating:** (estimated) Health: 3; Flammability: 3; Instability: 0

### 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. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. Do not get water inside containers. A vapor suppressing foam may be used to reduce vapors.

## Section 7 - Handling and Storage

**Handling:** Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep away from heat, sparks and flame. Do not ingest or inhale. Use with adequate ventilation. Use and store under nitrogen. Do not allow contact with water. Discard contaminated shoes. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Keep from contact with moist air and steam.

**Storage:** Keep away from heat, sparks, and flame. Keep away from sources of ignition. Keep container closed when not in use. Flammables-area. Store protected from moisture.

## 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-Diaminopropane | none listed | none listed | none listed       |

**OSHA Vacated PELs:** 1,2-Diaminopropane: 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 to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to minimize contact with skin.

**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:** Liquid

**Appearance:** clear, colorless

**Odor:** Ammoniacal odor

**pH:** Not available.

**Vapor Pressure:** .10 mbar @ 20 deg C

**Vapor Density:** 2.6

**Evaporation Rate:**Not available.

**Viscosity:** Not available.

**Boiling Point:** 119 - 120 deg C @ 760.00mm Hg

**Freezing/Melting Point:**-37 deg C

**Decomposition Temperature:**Not available.

**Solubility:** soluble in water

**Specific Gravity/Density:**.8700g/cm3

**Molecular Formula:**C3H10N2

**Molecular Weight:**74.13

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions. Absorbs carbon dioxide from the air.

**Conditions to Avoid:** High temperatures, incompatible materials, ignition sources, moisture, exposure to air, excess heat, exposure to moist air or water.

**Incompatibilities with Other Materials:** Strong oxidizing agents.

**Hazardous Decomposition Products:** Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

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

## Section 11 - Toxicological Information

### RTECS#:

**CAS#** 78-90-0: TX6650000

### LD50/LC50:

**CAS#** 78-90-0:

Draize test, rabbit, eye: 87 mg Severe;

Draize test, rabbit, eye: 750 ug/24H Severe;

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

Oral, rat: LD50 = 2230 mg/kg;

Skin, rabbit: LD50 = 500 uL/kg;

**Carcinogenicity:**

CAS# 78-90-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information available.

**Teratogenicity:** No information available.

**Reproductive Effects:** No information available.

**Mutagenicity:** No information available.

**Neurotoxicity:** No information available.

**Other Studies:**

## Section 12 - Ecological Information

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

**Environmental:** This chemical is expected to rapidly volatilize into the atmosphere.

**Physical:** No information available.

**Other:** 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:** None listed.

## Section 14 - Transport Information

|                       | US DOT               | Canada TDG           |
|-----------------------|----------------------|----------------------|
| <b>Shipping Name:</b> | 1,2-PROPYLENEDIAMINE | 1,2-PROPYLENEDIAMINE |
| <b>Hazard Class:</b>  | 8                    | 8(3)                 |
| <b>UN Number:</b>     | UN2258               | UN2258               |
| <b>Packing Group:</b> | II                   | II                   |

## Section 15 - Regulatory Information

### US FEDERAL

**TSCA**

CAS# 78-90-0 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.

**SARA Codes**

CAS # 78-90-0: immediate, fire.

**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# 78-90-0 can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts.

**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:**

XN C

**Risk Phrases:**

R 10 Flammable.  
R 21 Harmful in contact with skin.  
R 35 Causes severe burns.

**Safety Phrases:**

S 16 Keep away from sources of ignition - No smoking.  
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S 33 Take precautionary measures against static discharges.  
S 37/39 Wear suitable gloves and eye/face protection.  
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S 9 Keep container in a well-ventilated place.

**WGK (Water Danger/Protection)**

CAS# 78-90-0: 1

**Canada - DSL/NDSL**

CAS# 78-90-0 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of B3, 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**

CAS# 78-90-0 is listed on the Canadian Ingredient Disclosure List.

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

**MSDS Creation Date:** 2/10/1999

**Revision #3 Date:** 10/03/2005

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