Material Safety Data Sheet
1,2-Dichloropropane, 98%

ACC# 02091

Section 1 - Chemical Product and Company Identification

MSDS Name: 1,2-Dichloropropane, 98%
Catalog Numbers: AC113670000, AC113670010, AC113670025, AC113670050, AC113670500, AC113672500 AC113672500
Synonyms: Propylene dichloride.
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
78-87-5	1,2-Dichloropropane	98	201-152-2

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless liquid. Flash Point: 15 deg C.
Warning! Flammable liquid and vapor. Causes eye, skin, and respiratory tract irritation. May be harmful if swallowed or inhaled. May cause central nervous system depression. May cause liver and kidney damage.
Target Organs: Kidneys, central nervous system, liver.

Potential Health Effects
Eye: Causes moderate eye irritation. Vapors cause eye irritation. May cause eye injury.
Skin: Causes skin irritation. Prolonged and/or repeated contact may cause defatting of the skin and dermatitis. May be absorbed through the skin.
Ingestion: May be harmful if swallowed. May cause effects similar to those of acute inhalation. Causes gastrointestinal tract irritation.
Inhalation: Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. Causes respiratory tract irritation. May cause liver and kidney damage. May cause anemia. Vapors may cause dizziness or suffocation. May cause cardiac abnormalities. Symptoms of inhalation include: anorexia, abdominal pain, vomiting, blood abnormalities, and hematuria.
Chronic: Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion.

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: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
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 not breathing, give artificial respiration. If breathing is difficult, give oxygen.
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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. 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. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water.
Flash Point: 15 deg C (59.00 deg F)
Autoignition Temperature: 557 deg C (1,034.60 deg F)
Explosion Limits, Lower:3.40 vol %
Upper: 14.50 vol %
NFPA Rating: (estimated) Health: 2; 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. A vapor suppressing foam may be used to reduce vapors.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use only in a well-ventilated area. Ground and bond containers when transferring material. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.
Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

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 general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
1,2-Dichloropropane	75 ppm TWA; 110 ppm STEL	400 ppm IDLH	75 ppm TWA; 350 mg/m3 TWA

OSHA Vacated PELs: 1,2-Dichloropropane: 75 ppm TWA; 350 mg/m3 TWA
Personal Protective Equipment
Eyes: Wear chemical splash goggles.
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: Sweet
pH: Not available.
Vapor Pressure: 50 mm Hg @ 25 deg C
Vapor Density: 3.9 (air=1)
Evaporation Rate:>1 (Butyl Acetate = 1)
Viscosity: Not available.
Boiling Point: 95-96 deg C @ 760 mm Hg
Freezing/Melting Point:-100 deg C
Decomposition Temperature: Not available.
Solubility: IN WATER: 3 G/L (20°C)
Specific Gravity/Density:1.15 g/ml
Molecular Formula:C3H6Cl2
Molecular Weight:112.99

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Ignition sources, excess heat, confined spaces.
Incompatibilities with Other Materials: Oxidizing agents, acids, , aluminum, orthodichlorobenzene + ethylene dichloride + aluminum. Will attack some forms of plastic, rubber, and coatings.
Hazardous Decomposition Products: Hydrogen chloride, phosgene, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:
CAS# 78-87-5: TX9625000
LD50/LC50:
CAS# 78-87-5:
Draize test, rabbit, eye: 500 mg Mild;
Inhalation, rat: LC50 = 14 gm/m3/8H;
Inhalation, rat: LC50 = 300 ppm/8H;
Oral, mouse: LD50 = 860 mg/kg;
Oral, rat: LD50 = 1900 mg/kg;
Skin, rabbit: LD50 = 8750 uL/kg;
Skin, rabbit: LD50 = 8750 mg/kg;
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Carcinogenicity:
CAS# 78-87-5:

- **ACGIH:** Not listed.
- **California:** carcinogen, initial date 1/1/90
- **NTP:** Not listed.
- **IARC:** Not listed.

Epidemiology: No information available.
Teratogenicity: No information available.
Reproductive Effects: See actual entry in RTECS for complete information.
Mutagenicity: mmo-sat 100 µg/platemma-mus: lym 11600 µg/lcyt-ham: ovr 660 mg/lsce-ham: ovr 113 mg/lsce-ham: lng 3300 µmol/lSee also Dictionary of Substances and Their Effects 1992.
Neurotoxicity: No information available.
Other Studies:

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available.
Environmental: Terrestrial: If released on soil 1,2-dichloropropane will rapidly volatilize and readily leach into the ground especially in sandy soils. Aquatic: Will be lost primarily by volatilization (half-life 5-8 hrs in a typical river to 10 days in a lake). Atmospheric: Will degrade by reaction with photochemically produced hydroxyl radicals (half-life >23 days). Slow biodegradation and bioconcentration.
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:
CAS# 78-87-5: waste number U083.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	1,2-DICHLOROPROPANE	1,2-DICHLOROPROPANE
Hazard Class:	3	3
UN Number:	UN1279	UN1279
Packing Group:	II	II
Additional Info:		FLASHPOINT 15 C

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 78-87-5 is listed on the TSCA inventory.
Health & Safety Reporting List
CAS# 78-87-5: Effective 10/4/82, Sunset 10/4/92
Chemical Test Rules
CAS# 78-87-5: Testing required by manufacturers, processors
Section 12b
CAS# 78-87-5: Section 4
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
CERCLA Hazardous Substances and corresponding RQs
CAS# 78-87-5: 1000 lb final RQ; 454 kg final RQ
SARA Section 302 Extremely Hazardous Substances
None of the chemicals in this product have a TPQ.
SARA Codes
CAS # 78-87-5: immediate, delayed, fire.
Section 313
This material contains 1,2-Dichloropropane (CAS# 78-87-5, 98%),which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR
Clean Air Act:
CAS# 78-87-5 is listed as a hazardous air pollutant (HAP).
This material does not contain any Class 1 Ozone depletors.
This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
CAS# 78-87-5 is listed as a Hazardous Substance under the CWA. CAS# 78-87-5 is listed as a Priority Pollutant under the Clean Water Act.
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# 78-87-5 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 1,2-Dichloropropane, a chemical known to the state of California to cause cancer.
California No Significant Risk Level: CAS# 78-87-5: 9.7 æg/day NSRL

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

XN F

Risk Phrases:

R 11 Highly flammable.
R 20/22 Harmful by inhalation and if swallowed.

Safety Phrases:

S 16 Keep away from sources of ignition - No smoking.
S 24 Avoid contact with skin.

WGK (Water Danger/Protection)

CAS# 78-87-5: 3

Canada - DSL/NDSL

CAS# 78-87-5 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of 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.

Canadian Ingredient Disclosure List

CAS# 78-87-5 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 2/17/1999
Revision #4 Date: 6/08/2004