

Material Safety Data Sheet

1,2,3-Trichloropropane, 99+ %

ACC# 86289

Section 1 - Chemical Product and Company Identification

MSDS Name: 1,2,3-Trichloropropane, 99+ %

Catalog Numbers: AC149550000, AC149550010, AC149550050, AC149552500, AC149555000

Synonyms: Glycerine Trichlorohydrin, Trichlorohydrin, Allyl Trichloride.

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
96-18-4	1,2,3-Trichloropropane	99+%	202-486-1

Hazard Symbols: XN

Risk Phrases: 21/22

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: yellow. Flash Point: 82 deg C. **Warning! Combustible liquid.** May be harmful if absorbed through the skin. May be harmful if swallowed. May cause eye and skin irritation. May cause respiratory and digestive tract irritation. Cancer hazard. May cause cancer in humans.

Target Organs: None.

Potential Health Effects

Eye: May cause eye irritation.

Skin: May cause skin irritation. May be harmful if absorbed through the skin.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed.

Inhalation: May cause respiratory tract irritation. Vapors may cause dizziness or suffocation.

Chronic: May cause cancer in humans.

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 immediately.

Skin: Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid immediately. If conscious drink water, then induce vomiting. If unconscious, immediately take victim to a physician and do NOT attempt to induce vomiting.

Inhalation: Remove from exposure 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 - Firefighting 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. Use water spray to keep fire-exposed containers cool. Combustible Liquid. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. May be ignited by heat, sparks, and flame. Containers may explode when heated.

Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Cool containers with flooding quantities of water until well after fire is out.

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., dry sand or earth), then place into a chemical waste container. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use only in a well-ventilated area. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid contact with 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.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: 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
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1,2,3-Trichloropropane	10 ppm; skin - potential for cutaneous absorption	10 ppm TWA; 60 mg/m3 TWA; NIOSH Potential Occupational Carcinogen - see Appendix A Potential NIOSH carcinogen.	50 ppm TWA; 300 mg/m3 TWA
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OSHA Vacated PELs: 1,2,3-Trichloropropane: 10 ppm TWA; 60 mg/m3 TWA

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 prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: yellow

Odor: chloroform-like

pH: Not available.

Vapor Pressure: 2.9 hPa @ 20 deg C

Vapor Density: 5.1

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 156 deg C @ 760.0

Freezing/Melting Point: -14 deg C

Decomposition Temperature: Not available.

Autoignition Temperature: 304 deg C (579.20 deg F)

Flash Point: 82 deg C (179.60 deg F)

NFPA Rating: (estimated) Health: 2; Flammability: 2; Reactivity: 0

Explosion Limits, Lower: 3.20 vol %

Upper: 12.60 vol %

Solubility: Slightly soluble.

Specific Gravity/Density: 1.3870g/cm3

Molecular Formula: ClCH2CH(Cl)CH2Cl

Molecular Weight: 147.43

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, ignition sources, excess heat.

Incompatibilities with Other Materials: Oxidizing agents

Hazardous Decomposition Products: Hydrogen chloride, carbon monoxide, carbon dioxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 96-18-4: TZ9275000

LD50/LC50:

CAS# 96-18-4:

Inhalation, mouse: LC50 = 3400 mg/m3/2H;

Oral, mouse: LD50 = 369 mg/kg;

Oral, rabbit: LD50 = 380 mg/kg;

Oral, rat: LD50 = 505 mg/kg;

Skin, rabbit: LD50 = 1770 mg/kg;

Carcinogenicity:

CAS# 96-18-4:

ACGIH: A3 - Animal Carcinogen

California: carcinogen; initial date 10/1/92

NIOSH: occupational carcinogen

NTP: Suspect carcinogen

OSHA: Possible Select carcinogen

IARC: Group 2A carcinogen

Epidemiology: The National Toxicology Program has concluded that this chemical can be reasonably be considered a human carcinogen.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Neurotoxicity: No information available.

Mutagenicity: No information available.

Other Studies: No data available.

Section 12 - Ecological Information

Ecotoxicity: Not available.

Environmental Fate: Terrestrial: Low adsorptivity into soil and readily leaches. Aquatic: Rapidly volatilizes into atmosphere. Atmospheric: Exists as vapor with half-life of 46 days. Resistant to biodegradation and does not bioconcentrate.

Physical/Chemical: Not available.

Other: 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	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	TOXIC LIQUID,ORGANIC,N.O.S. (1,2,3-TRICHLOROPROPANE)				CORROSIVE SOLID NOS (2-MESITYLENESULFONYL CHLORIDE)
Hazard Class:	6.1				8(9.2)
UN Number:	UN2810				UN1759
Packing Group:	III				II

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 96-18-4 is listed on the TSCA inventory.

Health & Safety Reporting List

CAS# 96-18-4: Effective Date: June 1, 1987; Sunset Date: June 1, 1997

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.

SARA

Section 302 (RQ)

CAS# 96-18-4: (This CAS Number is listed in Appendix A but is NOT listed in Table 302.4)

Section 302 (TPQ)

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 96-18-4: acute, chronic, flammable.

Section 313

This material contains 1,2,3-Trichloropropane (CAS# 96-18-4, 99%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

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# 96-18-4 can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act: WARNING: This product contains 1,2,3-Trichloropropane, 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:

XN

Risk Phrases:

R 21/22 Harmful in contact with skin and if swallowed.

Safety Phrases:

S 37/39 Wear suitable gloves and eye/face protection.

WGK (Water Danger/Protection)

CAS# 96-18-4: 2

Canada

CAS# 96-18-4 is listed on Canada's DSL/NDL List.

This product has a WHMIS classification of B3, D1B, D2B.

CAS# 96-18-4 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 96-18-4: OEL-AUSTRALIA:TWA 10 ppm (60 mg/m3);Skin OEL-BELGIUM:
TWA 10 ppm (60 mg/m3);Skin OEL-DENMARK:TWA 50 ppm (300 mg/m3) OEL-FI
NLAND:TWA 50 ppm (300 mg/m3);STEL 75 ppm (450 mg/m3) OEL-GERMANY:TWA
50 ppm (300 mg/m3) OEL-THE NETHERLANDS:TWA 50 ppm (300 mg/m3) OEL-TH
E PHILIPPINES:TWA 50 ppm (300 mg/m3) OEL-RUSSIA:STEL 2 mg/m3 OEL-SWI
TZERLAND:TWA 50 ppm (300 mg/m3);STEL 250 ppm (1500 mg/m3) OEL-UNITED
KINGDOM:TWA 50 ppm (300 mg/m3);STEL 75 ppm OEL IN BULGARIA, COLOMBIA,
JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM
check ACGI TLV

Section 16 - Additional Information

MSDS Creation Date: 8/25/1998

Revision #2 Date: 8/02/2000

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