



LTS Research Laboratories, Inc.
Safety Data Sheet
1,2-Dichloroethane, Anhydrous

1. Product and Company Identification

Trade Name: 1,2-Dichloroethane, Anhydrous
Chemical Formula: $\text{ClCH}_2\text{CH}_2\text{Cl}$; $\text{C}_2\text{H}_4\text{Cl}_2$
Recommended Use: Scientific research and development

Manufacturer/Supplier: LTS Research Laboratories, Inc.
Street: 2001 Oaks Pkwy
City: Belmont
State: North Carolina
Zip Code: 28012
Country: USA
Tel #: 855-587-2436 / 855-lts-chem

24-Hour Emergency Contact: 800-424-9300 (US & Canada)
+1-703-527-3887 (International)

2. Hazards Identification

Signal Word:

Danger



Hazard Statements:

H225: Highly flammable liquid and vapor
H302: Harmful if swallowed
H304: May be fatal if swallowed and enters airways
H315: Causes skin irritation
H319: Causes serious eye irritation
H331: Toxic if inhaled
H335: May cause respiratory irritation
H350: May cause cancer

Precautionary Statements:

P202: Do not handle until all safety precautions have been read and understood
P210: Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking
P233: Keep container tightly closed
P240: Ground/bond container and receiving equipment
P241: Use explosion-proof electrical/ ventilating/ lighting/ equipment
P242: Use only non-sparking tools
P243: Take precautionary measures against static discharge
P261: Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray
P264: Wash skin thoroughly after handling
P270: Do not eat, drink or smoke when using this product
P271: Use only outdoors or in a well-ventilated area
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/ doctor
P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
P304 + P340 + P311: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308 + P313: IF exposed or concerned: Get medical advice/ attention
P331: Do NOT induce vomiting
P332 + P313: If skin irritation occurs: Get medical advice/ attention
P337 + P313: If eye irritation persists: Get medical advice/ attention
P362: Take off contaminated clothing and wash before reuse
P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-Resistant foam to extinguish
P403 + P233: Store in a well-ventilated place. Keep container tightly closed
P403 + P235: Store in a well-ventilated place. Keep cool
P405: Store locked up
P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):

Health:	N/A
Flammability:	N/A
Physical:	N/A

3. Composition

Chemical Family:	Organometallic
Additional Names:	Ethylene dichloride, Ethylene chloride
1,2-Dichloroethane (ClCH ₂ CH ₂ Cl):	
Percentage:	100 wt%
CAS #:	107-06-2
EC #:	203-458-1

4. First Aid Procedures

General Treatment:	Seek medical attention if symptoms persist.
Special Treatment:	None
Important Symptoms:	N/A
Inhalation:	Remove victim to fresh air. Supply oxygen if breathing is difficult. Seek medical attention.
Ingestion:	Rinse mouth with water. Do not induce vomiting. Seek medical attention.
Skin:	Wash affected area with mild soap and water. Remove any contaminated clothing. Seek medical attention.
Eyes:	Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention.

5. Firefighting Measures

Flammability:	Flammable liquid
Extinguishing Media:	No special restrictions – use suitable extinguishing agent for surrounding material and type of fire.
Spec. Fire Fighting Procedure:	Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

6. Accidental Release Measures

If Material Is Released/Spilled:	Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.
Environmental Precautions:	Isolate runoff to prevent environmental pollution.

7. Handling and Storage

Handling Conditions:	Wash thoroughly after handling.
Storage Conditions:	Store in a cool dry place in a tightly sealed container. Store apart from materials and conditions listed in section 10.
Work/Hygienic Maintenance:	Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.
Ventilation:	Provide sufficient ventilation to maintain concentration at or below threshold limit.

8. Exposure Controls and Personal Protection

Permissible Exposure Limits:	1 ppm as C ₂ H ₄ Cl ₂ , long-term value
Threshold Limit Value:	10 ppm as C ₂ H ₄ Cl ₂ , long-term value
Special Equipment:	None
Respiratory Protection:	Dust Respirator
Protective Gloves:	Rubber gloves Check gloves prior to each use
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

9. Physical and Chemical Characteristics

Color	Colorless
Form:	Liquid
Odor:	N/A
Water Solubility:	Soluble
Boiling Point:	83 °C
Melting Point:	-35 °C
Flash Point:	13 °C
Autoignition Temperature:	440 °C
Density:	1.256 g/cm ³
Molecular weight:	98.96 g/mol

10. Reactivity

Stability:	Stable under recommended storage conditions
Reacts With:	Various plastics, Light metals, Iron, Alkaline earth metals, alkali amides, Nitric acid, nitrogen oxides, Oxidizing agents, Chlorine, powdered magnesium, Zinc, Alkali metals, powdered aluminium, Powdered metals, Potassium, nitrogen dioxide
Incompatible Conditions:	Warming, Vapors may form explosive mixture with air
Hazardous Decomposition Products:	Carbon oxides, Hydrogen chloride gas

11. Toxicological Information

Potential Health Effects:

Eyes:	Causes serious eye irritation
Skin:	Causes skin irritation
Ingestion:	May be fatal if swallowed
Inhalation:	May be fatal if enters airways
Chronic:	N/A

Signs & Symptoms: N/A

Aggravated Medical Conditions: N/A

Median Lethal Dose: LD50 Oral- 770 mg/kg for rat by mouth

Carcinogen: IARC: 2B - Group 2B: Possibly carcinogenic to humans (1,2-Dichloroethane)
NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

12. Ecological Information

Aquatic Toxicity:	N/A
Persistent Bioaccumulation Toxicity:	N/A
Very Persistent, Very Bioaccumulative:	N/A
Notes:	N/A

13. Disposal Considerations

Dispose of in accordance with local, state, national, and international regulations.

14. Transportation Data

Hazardous: Hazardous for transportation



Hazard Class:	3 Flammable Liquid
Secondary Hazard Class:	6.1 Poison
Packing Group:	II
UN Number:	UN1184
Proper Shipping Name:	Ethylene dichloride
Reportable Quantity (RQ):	100 lbs

15. Regulatory Information

Sec 302 Extremely Hazardous:	No
Sec 304 Reportable Quantities:	N/A
Sec 313 Toxic Chemicals:	Yes

16. Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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