

A. G. Layne, Inc.

SAFETY DATA SHEET

SDS Distribution: The information in this document should be made available to all who may handle the product.

Product ID trans - 1, 2 Dichloroethylene

SECTION 1) CHEMICAL PRODUCT AND MANUFACTURER'S IDENTIFICATION

Product ID: trans - 1, 2 Dichloroethylene
Product Name: trans - 1, 2 Dichloroethylene
Revision Date: Aug 06, 2024 **Date Printed:** Aug 06, 2024
Version: 1.0 **Supersedes Date:** N.A.
Manufacturer's Name: A. G. Layne, Inc.
Address: 4578 Brazil Street Los Angeles, CA, US, 90039
Emergency Phone: CHEMTREC US : 1-800-424-9300, INTERNATIONAL CALLS : 1-703-527-3887
Information Phone Number: 323-245-2345
Fax:
Product/Recommended Uses:

SECTION 2) HAZARDS IDENTIFICATION

Classification

Flammable Liquids - Category 2

Acute toxicity Inhalation Vapor - Category 4

Aspiration Hazard - Category 1

Eye Irritation - Category 2A

Skin Irritation - Category 2

Chronic aquatic toxicity - Category 3

Safety data sheet prepared in accordance to the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

Pictograms



Signal Word

Danger

Hazardous Statements - Physical

H225 - Highly flammable liquid and vapor

Hazardous Statements - Health

H332 - Harmful if inhaled

H304 - May be fatal if swallowed and enters airways

H319 - Causes serious eye irritation

H315 - Causes skin irritation

Hazardous Statements - Environmental

H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements - General

P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

P103 - Read label before use.

Precautionary Statements - Prevention

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.

P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

P264 - Wash with soap and water thoroughly after handling.

P280 - Wear protective gloves, protective clothing, eye protection/face protection.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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 action to prevent static discharges.

Precautionary Statements - Response

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 - Call a POISON CENTER/doctor if you feel unwell.

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P331 - Do NOT induce vomiting.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 - If eye irritation persists: Get medical advice/attention.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse with water or shower.

P370 + P378 - In case of fire: Use DRY chemical, alcohol-resistant foam, water spray/fog or carbon-dioxide to extinguish.

P302 + P352 - IF ON SKIN: Wash with plenty of water.

P321 - Specific treatment (see First-Aid on this label).

P332 + P313 - If skin irritation occurs: Get medical advice/attention.

P362 + P364 - Take off contaminated clothing. And wash it before reuse.

Precautionary Statements - Storage

P405 - Store locked up.

P403 + P235 - Store in a well-ventilated place. Keep cool.

Precautionary Statements - Disposal

P501 - Dispose of contents/container to disposal recycling center.
Waste management should be in full compliance with federal, state and local laws.

SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
0000156-60-5	1,2-DICHLOROETHYLENE	75% - 100%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing.

If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor.

Call a POISON CENTER/doctor if you feel unwell.

Eliminate all ignition sources if safe to do so.

Eye Contact

If eye irritation persists:

Get medical advice/attention.

Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open.

Remove contact lenses, if present and easy to do.

Continue rinsing for a duration of 15-20 minutes.

Take care not to rinse contaminated water into the unaffected eye or onto the face.

Skin Contact

Wash with plenty of lukewarm, gently flowing water for a duration of 15-20 minutes or until medical aid is available.

If skin irritation occurs or you feel unwell:

Get medical advice/attention.

Take off immediately contaminated clothing.

Store contaminated clothing under water and wash before re-use or discard.

Ingestion

Rinse mouth.

Immediately call a POISON CENTER or doctor.

Do NOT induce vomiting.

If vomiting occurs naturally, lie on your side, in the recovery position.

Most important symptoms and effects, both acute and delayed

No data available.

Indication of any immediate medical attention and special treatment needed

Treat according to symptoms (decontamination, vital functions), no known specific antidote. Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Small Fire : Dry chemical, foam, carbon dioxide, water-spray or alcohol-resistant foam. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Large Fire : Water spray, fog or alcohol-resistant foam.

Unsuitable Extinguishing Media

Do not use straight stream of water.

Specific Hazards Arising from the Chemical

Fire will produce irritating and toxic gases. Runoff may pollute waterways Most vapors are heavier than air. Vapors may form explosive mixtures with air Vapors will spread along ground and collect in low or confined areas (sewers, basements, tanks) Vapors may travel to source of ignition and flash back. Many liquids are lighter than water. Containers may explode in fire. May form an ignitable vapor/air mixture in closed tanks or containers.

Precautions for Firefighters

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Cool containers with flooding quantities of water until well after fire is out. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Equipment

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

Stay uphill and/or upstream. Ventilate closed spaces before entering. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Evacuate and isolate hazard area and keep unauthorized personnel away. A vapor-suppressing foam may be used to reduce vapors.

Protective Equipment

Breathing protection is required. Wear chemical protective clothing and positive pressure self-contained breathing apparatus (SCBA).

Personal Precautions

Do not breathe vapor or mist. Avoid contact with skin, eye or clothing.

Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Dike far ahead of liquid spill for later disposal.

Methods and Materials for Containment and Cleaning up

Ventilate area after clean-up is complete. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean, non-sparking tools to collect absorbed material.

SECTION 7) HANDLING AND STORAGE

Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits.

The use of local ventilation is recommended to control emissions near the source.

Report ventilation failures immediately.

Storage Room Requirements

Keep containers securely sealed when not in use.

Containers that have been opened must be carefully resealed to prevent leakage.

Indoor storage should meet OSHA standards and appropriate fire codes.

Empty containers retain residue and may be dangerous.

Store in cool, dry, well-ventilated areas away from heat, direct sunlight and strong oxidizers.

Store in approved containers and protect against physical damage.

Take precautionary measures against electrostatic discharge.

To avoid fire or explosion, dissipate static electricity during transfer by ground and bonding containers and equipment before transferring material.

Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored.

General

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Wash hands after use. Avoid contact with skin, eye or clothing. Do not breathe vapor or mist. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. All containers must be properly labelled. Eyewash stations and showers should be available in areas where this material is used and stored

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids.

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Respiratory protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 should be followed. Check with respiratory protective equipment suppliers.

Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	OSHA Tables (Z1, Z2, Z3)	OSHA Carcinogen	OSHA Skin designation	NIOSH TWA (ppm)
1,2-DICHLOROETHYLENE								
Chemical Name	NIOSH TWA (mg/m3)	NIOSH STEL (ppm)	NIOSH STEL (mg/m3)	NIOSH Carcinogen	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)
1,2-DICHLOROETHYLENE					200			
Chemical Name	ACGIH Carcinogen	ACGIH Notations	ACGIH TLV Basis					
1,2-DICHLOROETHYLENE			CNS impair; eye irr					

CNS - Central nervous system, impair - Impairment, irr - Irritation

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Density	10.48 lb/gal
% Solids By Weight	0.00%
Density VOC	10.48 lb/gal
% VOC	100.00%
Specific Gravity	1.26
VOC Composite Partial Pressure (Calculated @ 20 C/68 F)	270.30 mmHg

Appearance	Colorless
Odor Threshold	N/A
Odor Description	Pleasant
pH	N/A
Water Solubility	N/A
Flammability	Flash point below 73°F/23°C
Flash Point Symbol	F
Flash Point	36.00 °F
Viscosity	N/A
Lower Explosion Level	6.70
Upper Explosion Level	18.00
Vapor Pressure	400.00 mmHg
Vapor Density	N/A
Freezing Point	-58.00 °F
Melting Point	N/A
Low Boiling Point	118.00 °F
High Boiling Point	N/A
Auto Ignition Temp	N/A
Decomposition Pt	N/A
Evaporation Rate	N/A
Coefficient Water/Oil	N/A
Kinematic Viscosity	N/A cSt
Kinematic Viscosity Temperature	N/A °C

SECTION 10) STABILITY AND REACTIVITY

Chemical Stability

Stable under normal storage and handling conditions.

Reactivity

No data available.

Possibility of Hazardous Reactions/Polymerization

Will not occur.

Conditions To Avoid

Avoid all possible sources of ignition, heat, sparks, flame, build up of static electricity and contact with incompatible materials.

Incompatible Materials

Strong bases, acids, and oxidizing agents.

Hazardous Decomposition Products

Oxides of carbon.

SECTION 11) TOXICOLOGICAL INFORMATION

Chronic Exposure

Based on available data, the classification criteria are not met.

Potential Health Effects - Miscellaneous

Based on available data, the classification criteria are not met.

Acute Toxicity

Harmful if inhaled

Skin Corrosion/Irritation

Causes skin irritation

Serious Eye Damage/Irritation

Causes serious eye irritation

Germ Cell Mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Respiratory/Skin Sensitization

Based on available data, the classification criteria are not met.

Reproductive Toxicity

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Repeated Exposure

Based on available data, the classification criteria are not met.

Aspiration Hazard

May be fatal if swallowed and enters airways

Specific Target Organ Toxicity - Single Exposure

Based on available data, the classification criteria are not met.

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

SECTION 12) ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects

Persistence and Degradability

No data available.

Bioaccumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No data available.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal

It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, state and local laws. Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes.

SECTION 14) TRANSPORT INFORMATION

U.S. DOT Information

UN1150, 1, 2-Dichloroethylene, 3, PG II, RQ (1, 2-Dichloroethylene 1,000lbs.)

Emergency Response Guide (ERG)

Emergency Response Guide 130

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0000156-60-5	1,2-DICHLOROETHYLENE	75% - 100%	CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act, SARA312, VOC, TSCA - Toxic Substances Control Act (TSCA), RCRA

Product does not contain any chemicals listed under California Proposition 65

SECTION 16) OTHER INFORMATION

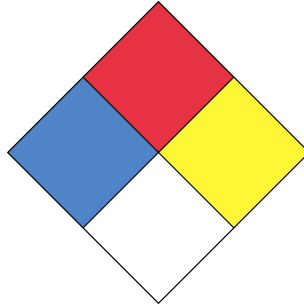
Glossary

ACGIH - American Conference of Governmental Industrial Hygienists; CAS - Chemical Abstracts Service ; Chemtrec - Chemical Transportation Emergency Center; DSL - Domestic Substances List; ESL- Effects screening levels; GHS - "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations; HMIS - Hazardous Material Information Service; IATA - Dangerous Goods Regulations (DGR) for the air transport (IATA); IMDG - International Maritime Dangerous Goods Code; LC - Lethal Concentration; LD - Lethal Dose; NFPA - National Fire Protection Association; OEL - Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL - Permissible Exposure Limit; SARA 313 - Superfund Amendments and Reauthorization Act, Section 313; SCBA - Self Contained Breathing Apparatus; ppm - parts per million; STEL - Short-term exposure limit; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act Public Law 94-469; TWA - Time-weighted average; US DOT- US Department of Transportation.

HMIS

Health	/ 2
FLAMMABILITY	3
Physical Hazard	0
Personal Protection	H

NFPA



(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks

Version 1.0:

Revision Date: Aug 06, 2024
First Edition.

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