



The MSDS format adheres to the standards and regulatory requirements of the United States and may not meet regulatory requirements in other countries.

DuPont
Material Safety Data Sheet

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"TraSys" #210
10509PP Revised 11-OCT-2008

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

"TraSys" is a registered trademark of DuPont.

Company Identification

MANUFACTURER/DISTRIBUTOR

DuPont
1007 Market Street
Wilmington, DE 19898

PHONE NUMBERS

Product Information : 1-800-441-7515 (outside the U.S.
302-774-1000)
Transport Emergency : CHEMTREC 1-800-424-9300(outside U.S.
703-527-3887)
Medical Emergency : 1-800-441-3637 (outside the U.S.
302-774-1000)

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
Proprietary Resins		2-4
*Trichloroethylene	79-01-6	95-97

* Disclosure as a toxic chemical is required under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

HAZARDS IDENTIFICATION

Potential Health Effects

Skin contact with may cause skin irritation with discomfort or rash. Repeated contact with Trichloroethylene may cause defatting of the skin with dryness and possible blister formation. Trichloroethylene has been infrequently associated with skin sensitization in humans.

Eye contact may cause eye irritation with tearing, pain, or blurred vision.

Based on animal data, inhalation of Trichloroethylene may cause irritation of the nose, throat, and lungs with cough, difficulty breathing or shortness of breath; non-specific

(HAZARDS IDENTIFICATION - Continued)

discomfort, such as nausea, headache, or weakness; temporary central nervous system depression with dizziness, confusion, incoordination, drowsiness or unconsciousness; temporary sensory nervous system effects as burning or numbness; abnormal liver or kidney function as detected by laboratory tests; or irregular heart beat with a strange sensation in the chest, "heart thumping," apprehension lightheadedness, feeling of fainting, dizziness, weakness, sometimes progressing to loss of consciousness and death.

Chronic exposure to Trichloroethylene may lead to weight loss, nausea, anorexia, fatigue, visual impairment, joint pain, dermatitis and wheezing; or fatality from gross overexposure. Repeated exposure to Trichloroethylene can cause intolerance to alcohol manifested by transient redness of the face and neck following alcohol ingestion. Epidemiology studies do not show a clear association between Trichloroethylene exposure and an increased cancer risk for humans.

Individuals with preexisting diseases of the central nervous system, cardiovascular system, liver, or kidneys may have increased susceptibility to the toxicity of excessive exposures to Trichloroethylene.

Carcinogenicity Information

The following components are listed by IARC, NTP, OSHA or ACGIH as carcinogens.

Material	IARC	NTP	OSHA	ACGIH
Trichloroethylene	2A	X		A2

FIRST AID MEASURES-----
First Aid

INHALATION

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

SKIN CONTACT

Flush skin with water after contact. Wash contaminated clothing before reuse.

EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

(FIRST AID MEASURES - Continued)

INGESTION

If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

Notes to Physicians

Activated charcoal mixture may be beneficial. Suspend 50 g activated charcoal in 400 mL water and mix well. Administer 5 mL/kg, or 350 mL for an average adult.

THIS MATERIAL MAY MAKE THE HEART MORE SUSCEPTIBLE TO ARRHYTHMIAS. Catecholamines such as adrenaline, and other compounds having similar effects, should be reserved for emergencies and then used only with special caution.

FIRE FIGHTING MEASURES

Flammable Properties

Flammable limits in Air, % by Volume
LEL : 8 %
UEL : 10.5 %

Vapors concentrated in a confined or poorly ventilated area can be ignited upon contact with a high energy spark, flame, or high intensity heat source.

Extinguishing Media

Water Spray, Dry Chemical, CO2.

Fire Fighting Instructions

Wear self-contained breathing apparatus. Wear full protective equipment.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Ventilate spill area.

Initial Containment

Dike spill.

(ACCIDENTAL RELEASE MEASURES - Continued)

Spill Clean Up

Soak up with sawdust, sand, oil dry or other absorbent material.

HANDLING AND STORAGE

Handling (Personnel)

Avoid breathing vapors or mist. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling.

Handling (Physical Aspects)

This product has the potential to release a visible fog of cyclic siloxanes and stopped siloxanes, as well as trace amounts of methanol under extreme processing conditions.

Storage

Keep container tightly closed. Store in a cool, dry, well ventilated area.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Use only with adequate ventilation.

Personal Protective Equipment

EYE/FACE PROTECTION

Wear chemical splash goggles.

RESPIRATORS

Wear NIOSH approved respiratory protection, as appropriate.

PROTECTIVE CLOTHING

Where there is potential for skin contact have available and wear as appropriate impervious gloves, apron, pants, and jacket.

Exposure Guidelines

Applicable Exposure Limits

Trichloroethylene

PEL (OSHA)	: 100 ppm, 8 Hr. TWA
	200 ppm, Ceiling
	300 ppm - 5 Min. Max.
TLV (ACGIH)	: 10 ppm, 8 Hr. TWA, A2
	STEL 25 ppm, A2
AEL * (DuPont)	: 10 ppm, 8 & 12 Hr. TWA

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Boiling Point	: 87 C (189 F)
Vapor Pressure	: 57.8 mm Hg @ 20 C (68 F)
Vapor Density	: 4.54 (Air=1.0)
% Volatiles	: 97 %
Solubility in Water	: Insoluble
pH	: 6-8
Odor	: Ether.
Form	: Liquid.
Color	: Clear.
Specific Gravity	: 1.4

STABILITY AND REACTIVITY

Chemical Stability

Stable at normal temperatures and storage conditions.

Incompatibility with Other Materials

Incompatible or can react with oxidizers.

Decomposition

Decomposes with heat.

Decomposition temperature: 500 F (260 C)

Hazardous gases/vapors produced may include carbon monoxide, carbon dioxide, silicon dioxide, methanol, aldehydes, sulfur compounds, and nitrogen oxides.

Polymerization

Polymerization will not occur.

TOXICOLOGICAL INFORMATION

Animal Data

Trichloroethylene:

Oral LD50: 7161 mg/kg in rats
Dermal LD50: >20 mL/kg in rabbits
Inhalation LC50, 4hr: 8450 ppm in mice

Animal testing indicates Trichloroethylene is a moderate skin and eye irritant. It has not been tested for animal sensitization. Single oral doses of Trichloroethylene produced liver and kidney changes, incoordination, and other nonspecific changes. Repeated exposures produced behavioral changes, reduced sperm motility, and structural changes in the brain. The effects in animals from single exposure by inhalation include central nervous system depression, anesthesia, liver changes, paralysis of facial muscles, respiratory difficulties, histological changes in the lungs, and blood effects. Cardiac sensitization occurred in dogs exposed to 5,000 or 10,000 ppm and given exogenous epinephrine. Repeated exposures produced disturbance of equilibrium and coordination, altered sense of hearing, increased liver and kidney weight, liver changes, anemia, and reduced body weight gain. Long term exposure resulted in liver, kidney, and spleen changes, increased liver and kidney weights, and reduced body weight gain. Animal tests with Trichloroethylene demonstrate weak carcinogenic activity. Trichloroethylene is not considered a unique developmental or reproductive hazard. Tests have shown that Trichloroethylene produces genetic damage in bacterial and mammalian cell cultures, and in animals. Trichloroethylene has not caused permanent genetic damage in reproductive cells of mammals (has not produced heritable genetic damage).

ECOLOGICAL INFORMATION

Ecotoxicological Information

Trichloroethylene:
96 hour LC50 - Fathead minnows: 40.7 mg/L.

DISPOSAL CONSIDERATIONS

Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

TRANSPORTATION INFORMATION

Shipping Information

DOT/IMO/IATA
Proper Shipping Name : Trichloroethylene Solution
Hazard Class : 6.1
UN No. : 1710
Packing Group : III

REGULATORY INFORMATION

U.S. Federal Regulations

TSCA Inventory Status : Listed.

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : Yes
Chronic : No
Fire : No
Reactivity : No
Pressure : No

OTHER INFORMATION

NFPA, NPCA-HMIS

NPCA-HMIS Rating
Health : 1
Flammability : 0
Reactivity : 0

Personal Protection rating to be supplied by user depending on use conditions.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS : MSDS Coordinator
DuPont Chemical Solutions Enterprise
Address : Wilmington, Delaware 19898
Telephone : 800-441-7515

Indicates updated section.

This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.

End of MSDS