Formosa Plastics Corporation, Texas
Material Safety Data Sheet

MANUFACTURER
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MSDS No: C/A009

Preparation Date: 11/14/2007
Supersedes Date: 02/23/2007

1. PRODUCT IDENTIFICATION

Product Name: Ethylene Dichloride (EDC)
Product Code: EDC
Chemical Family: Chlorinated Hydrocarbon
Chemical Name: 1,2-Dichloroethane
CAS No: 107-06-2
Synonyms: Ethylene chloride, EDC, Sym-dichloroethane, Ethane dichloride, 1,2-Dichloroethane
Formula: $C_2H_4Cl_2$
Technical Information: (361) 987-7453

2. PRODUCT INGREDIENTS

No.	Components	CAS No.	Percent (%)	OSHA PEL
P	Ethylene Dichloride	107-06-2	99-100	50 ppm TWA

3. PHYSICAL/CHEMICAL PROPERTIES

Physical Form: Liquid
Color: Clear, colorless
Odor: Sweet
Molecular Weight: 99
Boiling Point: 182.3°F (83.5°C)
Melting Point: -31.54°F (-35.3°C)
Freezing Point: -31.54°F (-35.3°C)
Solubility in Water: 5-10 mg/ml @20 degrees C
Specific Gravity: 1.26 (water = 1)@ 20 degrees C
Vapor Density: 3.4 (air = 1)
Evaporation Rate: 0.27 (Butyl Acetate = 1)
Vapor Pressure: 60 mg Hg @20 degrees C
% Volatile: 100
pH: About 7

The physical data presented above are typical values and should not be construed as a specification.

4. FIRE HAZARD DATA AND FIGHTING METHOD

Flash Point: 55.4°F (13°C)
Autoignition: 775°F (412.78°C)
Flammable Limits In Air (LEL, %) 6.2
(UEL, %) 15.9
Extinguishing Media: Dry chemical, carbon dioxide, water fog and spray.
Special Fire Fighting Procedure: In the event of a fire, wear NIOSH approved, positive pressure, self-contained breathing apparatus (SCBA), and full protective gear. Fight fire from protected location or maximum possible distance. Stop flow of gas before extinguishing fire. Immediately evacuate area. Cool exposed equipment with water spray until fire is out.

Unusual Fire and Explosion Hazards:	Vapors are heavier than air and may travel along the ground and considerable distance to a source of ignition and flash back.

5. HUMAN HEALTH DATA

Emergency Overview:	This product is toxic by inhalation, ingestion, and skin contact. It may cause narcosis-like effects, headache, nausea, vomiting and weakness.
Primary Route(s) of Exposure:	Inhalation, Ingestion, Eye, Skin Contact

Potential Health Effects and Symptoms of Over-Exposure

May cause damage to liver, kidney, lung, digestive tract and central nervous system.

Eye Contact:	May cause severe irritation to eyes
Skin Contact:	May cause severe irritation to skin
Inhalation:	May cause severe irritation to respiratory tract
Ingestion:	May cause severe irritation to digestive tract

Medical Conditions Aggravated by Overexposure:

None identified

Carcinogenicity:	**NTP:** Yes **IARC:** Yes **OSHA:** No

NTP: Anticipated human carcinogen. IARC Cancer Review: Animal Sufficient Evidence.

6. FIRST AID MEASURES

Eye Contact:	Immediately irrigate with copious amounts of water for at least 15 minutes. Call a physician.
Skin Contact:	Immediately wash with large quantities of water under emergency safety shower while removing contaminated clothing. Wash affected area with mild soap. Call a physician.
Inhalation:	Remove to fresh air. Support respiration. Call a physician.
Ingestion:	If person is conscious give up to 1 pint of water. Do not induce vomiting. Call a physician.
Notes to Physician:	Never administer Adrenaline for swallowing or inhalation over-exposure. Increased sensitivity of heart to Adrenaline may be caused by the over-exposure. Saline Cathartics should be considered following high dose ingestion. Over-exposure may cause vomiting and protracted retching via CNS mechanism.
Other Instructions:	If the victim is convulsing or unconscious, do not give anything by mouth, ensure that the victim's airway is open and lay the victim on his/her side with the head lower than the body.

7. EXPOSURE CONTROLS, PERSONAL PROTECTION RECOMMENDATIONS

Eye Protection:	Splash proof chemical goggles.
Skin Protection:	Polyvinyl alcohol or nitrile gloves with 4H liner, boots and protective clothing to prevent skin contact.
Respiratory Protection:	NIOSH approved respirators, SCBA.
Engineering Control:	Ventilation Requirements - Local Exhaust, General
Required Work/Hygiene Procedure:	Maintain the ambient workplace atmosphere below the legislated PELs listed in Section 2. Avoid contact with skin and avoid breathing vapor. Do not eat, drink, or smoke in work area. Wash hands thoroughly after handling, especially before eating, drinking, smoking, chewing, or using restroom facility. Contaminated clothing and shoes should be thoroughly cleaned before reuse or properly disposed of.

Exposure Guidelines:

No.	Components	OSHA-PEL	ACGIH-TLV
P	Ethylene Dichloride	50 ppm TWA	10 ppm TWA

8. ACCIDENTAL RELEASE CONTROL MEASURES

Response to Spills:	Evacuate the area and eliminate ignition sources. Wear full protective clothing and positive, self-contained breathing apparatus. Contain the spill. Remain upwind and dissipate vapor with water spray. Increase ventilation if in an enclosed area. Prevent liquid or vapors from

entering sewers or other low areas. Notify appropriate authorities as necessary.

9. HANDLING AND STORAGE

Handling:	When transferring this product, there is potential for static electricity buildup. Consideration should be given to bonding and grounding and venting of equipment during loading, unloading, and transfer of this product. Do not handle this product near heat, sparks, or flame.
Storage:	Store in a cool, dry, well-ventilated area. Keep away from sources of ignition, sparks or open flame.
Container Use:	Keep containers tightly closed.

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions to Avoid:	Avoid heat, flame, other sources of ignition. Not compatible with strong oxidizers, strong bases, aluminum, magnesium, potassium, sodium, nitric acid and ammonia.
Hazardous Decomposition:	Hydrogen chloride gas, carbon dioxide, carbon monoxide, and phosgene.
Hazardous Polymerization:	Will not occur.

11. DISPOSAL CONSIDERATIONS

Disposal Method:	It must be disposed of in accordance with Federal, State and local environmental control regulations.
Recycle/Reclaim:	Recycle to process if possible.

12. TRANSPORT INFORMATION

Proper shipping Name:	Ethylene Dichloride
DOT Hazard Class:	3
UN/NA Number:	UN1184
Hazard Label(s):	Flammable liquid, Poison
Packing Group:	II
Emergency Response Guide (ERG) No.:	129

13. TOXICOLOGICAL INFORMATION

The information provided below can be subject to misinterpretation. Therefore, it is essential the following information be interpreted by individuals trained in its evaluation.

Chemical	**Toxicity Data**
Ethylene Dichloride	Skin and Eye Irritation Data: eye-rbt: 63 mg SEV skn-rbt: 625 mg open MLD Tumorigenic Data: TDLo: orl-rat 5286 mg/kg/69W-I TCLo: ihl-rat 5 ppm/7H/78W-I Teratogenicity: TCLo: ihl-rat 300 ppm/7H (6-15D preg)

14. ECOLOGICAL INFORMATION

No data available on the adverse effects of this product on the environment. Neither COD or BOD data are available.

15. REGULATORY INFORMATION

FEDERAL REGULATORY INFORMATION

Ethylene Dichloride

OSHA Status:	PEL-TWA 50 ppm
EPA Clean Air Act Status:	Hazardous Air Pollutants (HAPs) Listing ARP Flammable Substances (40 CFR 68.130) Listing
EPA Clean Water Act Status:	Hazardous Substances Listing (40 CFR 116) Priority Pollutants Listing

Toxic Pollutants Listing (40 CFR 401.15; 403 App.B)

U.S. INVENTORY (TSCA): All the components of this substance are listed on or are exempt from the inventory. Subject to a TSCA Section (4) Enforceable Consent Agreement. Formosa Plastics and others are to report as required under Section 12(b). (ETHYLENE DICHLORIDE 107-06-2)

TSCA 12(b) EXPORT NOTIFICATION:

TSCA Status: 1,1,2-TRICHLOROETHANE
CAS NUMBER: 79-00-5
SECTION 4
1,2-DICHLOROETHANE
CAS NUMBER: 107-06-2
SECTION 4

CERCLA RQ: 100 lbs.

SARA Title III

Ethylene Dichloride

Section 302*	**Section 313****	**Section 311/312*****
None	Yes	H1, H2, P3

*Reportable quantity of extremely hazardous substance, Sec. 302
*Threshold planning quantity, extremely hazardous substance, Sec. 302
**Toxic chemical. Sec. 313
**Category as required by Sec 313 (40CFR372.65C). Must be used on Toxic Release Inventory form.
***Hazard category for SARA Sec.311/312 reporting H1=acute health hazard, H2=chronic health hazard, P3=fire hazard, P4=sudden release of pressure hazard, P5=reactive hazard

RCRA Status: If disposed of in its purchased form, this product meets the RCRA hazardous waste code U077 by listing. Under RCRA, it is the responsibility of the product user to determine at the time of disposal whether a material containing the product or derived form the product should be classified as a hazardous waste (40 CFR 261.20-24).

OTHER REGULATORY INFORMATION

The following chemicals are specifically listed by individual states; other product-specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements, you should contact the appropriate agency in your state.

State	**Chemical**	**Regulation**
California	Ethylene Dichloride	Cal Prop. 65 listing.
FL; LA; MA; MN; NJ; PA		State Right-To-Know Substances listing
Texas		Listed in Texas Air Contaminants with Health Effects Screening Levels: 40 ppb short term and 1 ppb long term.

Product Name: Ethylene Dichloride

International

Australia: Australian Inventory of Chemical Substances (AICS) Listing
Canada: WHMIS: Ingredient disclosure 1% item 715 (498)
National Pollutant Release Inventory (NPRI): Yes
Domestic Substance List (DSL) Inventory listing
United Kingdom: Maximum Exposure Limits: 7 ppm TWA
Germany: Carcinogens (animal evidence of carcinogenicity)
Israel: PEL-TWA 10 ppm

16. OTHER INFORMATION

NFPA
Fire - 3
Health - 2
Reactivity - 0

Specific Hazard - None

HMIS
Health - 3
Flammability - 3
Reactivity - 1
Personal Protection Index - X
X: Ask your supervisor or safety specialist for handling instructions.

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