



list

# MATERIAL SAFETY DATA SHEET

TENNECO POLYMERS, INC.  
P. O. BOX 2511  
HOUSTON, TX 77001

MATERIAL Methanol	
MSDS NO. 110	DATE 1/91

**I. MATERIAL IDENTIFICATION**

MATERIAL / TRADE NAME Methanol

SYNONYMS Methyl Alcohol, Wood Alcohol, Carbinol

CHEMICAL FAMILY / FORMUL Alcohols/CH<sub>3</sub>OH

CAS NO. 67-56-1

24 HOUR EMERGENCY TELEPHONE  
TENNECO 713 479-3411  
CHEMTREC 800 424-9300

**HAZARD RATING\***

<input type="checkbox"/> 1	HEALTH
<input type="checkbox"/> 3	FIRE
<input type="checkbox"/> 0	REACTIVITY

0 LEAST      3 HIGH  
1 SLIGHT     4 EXTREME  
2 MODERATE      \* NFPA 704

**II. INGREDIENTS**

COMPOSITION	%	TOXICITY DATA
Methyl Alcohol	99.9	8 hr TWA 200ppm (260mg/m <sup>3</sup> ) (skin) <u>Human</u> Eye-5ppm Oral-LDLo 340mg/kg Inhalation-TCLo 86000mg/m <sup>3</sup> (irritator)  Rat - Oral LD <sub>50</sub> 13gm/kg

**III. PHYSICAL DATA**

BOILING POINT, 760mm/Hg - 148°F (64.5°C)	SOLUBILITY IN H <sub>2</sub> O, % BY WEIGHT - Totally miscible
SPECIFIC GRAVITY, H <sub>2</sub> O=1 - 0.791	EVAPORATION RATE, BUTAL ACETATE=1 - 4.6
VAPOR PRESSURE, mm/Hg - 96 @ 68°F (20°C)	Molecular Weight - 32.04
VAPOR DENSITY, AIR=1 - 1.11	Melting Point - -144°F (-97.8°C)
VOLATILES, % BY VOLUME - 100	

**APPEARANCE AND ODOR** Clear, colorless liquid with characteristic alcohol odor. Less pure grades may have a pungent, oily odor.

**IV FIRE AND EXPLOSION DATA**

FLASH POINT AND TEST METHOD 54°F (12.2°C) TCC	AUTO IGNITION TEMPERATURE 867°F (464°C)	FLAMMABILITY LIMITS IN AIR, % BY VOLUME LOWER 6      UPPER 36.5
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**EXINGUISHING MEDIA** Dry chemical, alcohol type foam, CO<sub>2</sub>. Water may be ineffective. Use water spray to cool fire exposed containers. Use alcohol resistant foam to extinguish large fires or to blanket spill to reduce vapors.

**SPECIAL FIRE FIGHTING PROCEDURES** Class IB flammable liquid. Avoid water streams which may splash and spread flammng liquid. Vapors are heavier than air and may flow along surfaces to distant ignition sources and flash back. Fire fighters should use self-contained breathing equipment and protective clothing for fires in enclosed areas.

**UNUSUAL FIRE AND EXPLOSION HAZARDS** Reacts violently to oxidizers. Keep away from heat, sources of ignition. Burns with a clear, almost invisible flame, especially hard to see in strong

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**V. REACTIVITY DATA**

STABILITY		HAZARDOUS POLYMERIZATION	
<input checked="" type="checkbox"/> STABLE	<input type="checkbox"/> UNSTABLE	<input type="checkbox"/> MAY OCCUR	<input checked="" type="checkbox"/> WILL NOT OCCUR

**CONDITIONS AND MATERIALS TO AVOID**

Avoid strong oxidizing agents, excessive heat, sources of ignition.

**HAZARDOUS DECOMPOSITION PRODUCTS**

carbon monoxide, carbon dioxide

**VI. OCCUPATIONAL EXPOSURE LIMITS**

OSHA TLV - 200ppm 8 hr TWA (260mg/m<sup>3</sup>) Skin  
ACGIH(1984)ABOS "Skin" notation

**VII. HEALTH INFORMATION**

Methanol is a poisonous chemical that can affect the body through inhalation, skin absorption or ingestion.

Inhalation causes dizziness, nausea, visual impairment, respiratory failure, muscular coordination, and narcosis.

Ingestion can produce blindness, dizziness, headache and in amounts of 100-250ml can be fatal.

Skin contact causes irritation, dryness, dermatitis and erythema. Eye contact causes irritation.

Toxic effects from repeated over exposure to methanol are accumulative and effect the central nervous system, especially the optic nerve. These symptoms may linger for several days after exposures.

**VIII. EMERGENCY AND FIRST AID PROCEDURES**

Skin - wash with soap and water immediately after contact. Remove contaminated clothing immediately. Launder before reuse.

Eyes - Flush with large amounts of water for 15 minutes, getting under eyelids. Contact physician if irritation persists.

Inhalation - remove to fresh air. Restore breathing if necessary. Administer oxygen if breathing difficulty persists and contact physician for advice.

Ingestion - Drink large amounts of water, milk or sodium bicarbonate to dilute material in stomach. Induce vomiting if victim is conscious. Consult physician for additional advice and treatment.

**IX. EMPLOYEE PROTECTION****RESPIRATORY PROTECTION**

Provide adequate ventilation or exhaust to meet TLV requirements. Air<sup>\*</sup> supplied or self-contained breathing equipment recommended for exposures above TLV.

**PROTECTIVE CLOTHING**

Rubber gloves and rubber protective aprons or clothing required to prevent skin contact. Goggles or face shield should be used to protect face and eyes from splashing.

**OTHER PROTECTIVE MEASURES**

Eye wash and safety shower should be provided in area of use.

**X. ENVIRONMENTAL PROTECTION****SPILL CLEAN-UP PROCEDURE**

Eliminate all ignition sources. Stop spill or leak if it can be done safely. Contain spill to smallest area possible. Use absorbent materials to soak up small spills. Larger spills should be recovered for reuse or disposal. Spills in critical areas can be diluted with water to reduce fire hazard during cleanup.

Do not allow to material to enter sewers, drains or waterways.

**WASTE DISPOSAL**

Waste materials should be disposed of by a licensed solvent waste disposal company. Federal, state and local regulations must be followed.

**ENVIRONMENTAL HAZARDS**

Aquatic toxicity rating - TLm 96: over 1000 ppm.

**XI. SPECIAL PRECAUTIONS**

Store in closed containers in cool place.

No smoking allowed in areas of use or storage.

Use explosion-proof electrical fixtures.

Containers should be electrically grounded/bonded during material transfer to prevent static spark.

Corrosive to lead and aluminum.

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**XII. TRANSPORTATION REQUIREMENTS**

DOT SHIPPING NAME	Methanol or methyl alcohol	DOT I.D. NO.	UN1230
DOT CLASSIFICATION	Flammable liquid	UN HAZARD CLASS	UN1230
	IMCO class - 3.2		

**XIII. OTHER REGULATORY CONTROLS**

None determined

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