

MATERIAL SAFETY DATA SHEET

MSDS Number 3435
MSDS Date 12/29/98
Spsds Date 08/24/93
Page Number 1 of 6

SECTION I - Product and Company Information

Product Name ENPLATE STOP-OFF NO. 1
HMIS Hazard Rating Health: 3 Fire: 3 Reactivity: 1
Company Identification ENTHONE-OMI INC.
P.O. Box 1900
New Haven CT 06508
Contact Regulatory Affairs
Telephone/Fax (203)934-8611 / (203)799-8179
Emergency CHEMTREC
(800)424-9300
Preparer James P. Link
Regulatory Consultant

ENPLATE is a registered trademark of Enthone-OMI Inc.

SECTION II - Ingredient and Hazard Information

Ingredient Name	CAS Number	Percent	TSCA
TOLUENE	108-88-3	< 50.0	Y
INGREDIENTS NOT KNOWN TO BE HAZARDOUS	NA	< 40.0	Y
PERCHLOROETHYLENE	127-18-4	< 15.0	Y

All ingredients comply with applicable rules or orders under TSCA.

Weight percents listed above are within 5% of the actual value.

Carcinogen:

Studies using perchloroethylene in oral and inhalation routes have produced kidney tumors and leukemia in rodents.

Reference:

Perchloroethylene: IARC 2A, NTP 2B, NIOSH-X

SECTION III - Hazards Identification

Inhalation:

Mist or spray can cause irritation of upper respiratory tract and lung tissues, dizziness, nausea, and possibly death.

Skin Contact:

Enthone-OMI Inc.
a subsidiary of ASARCO
www.enthone-omi.com

MATERIAL SAFETY DATA SHEET

MSDS Number 3435
MSDS Date 12/29/98
Spsds Date 08/24/93
Page Number 2 of 6

Can cause severe irritation, dermatitis and defatting of the skin.

Eye Contact:

Causes burns with damage to eyes and possible blindness.

Ingestion:

Can cause severe irritation to mouth, throat, esophagus, and stomach.

May cause nausea and drowsiness.

Chronic:

Repeated exposure to moderately high concentrations of toluene vapor may cause a toxic encephalopathy. Signs and symptoms include euphoria, hallucinations, behavioral disturbances, double vision, ataxia, convulsions, and coma. Repeated skin contact may cause a fissured dermatitis and may aggravate an existing dermatitis. While there is no evidence that industrially acceptable levels of toluene vapors (e.g.: the TLV) have produced cardiac effects in humans, animal studies have shown that inhalation of high levels of toluene produced cardiac sensitization.

SECTION IV - First Aid Measures

Skin Contact:

Immediately wash contaminated skin with plenty of water for 15 minutes. Remove contaminated clothing and footwear. Wash clothing before reuse. Discard footwear if it cannot be decontaminated. Seek immediate medical attention.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes holding lids apart to ensure flushing of entire surface. Washing eyes within several seconds of exposure is essential to minimize damage. Seek immediate medical attention.

Ingestion:

Never give anything by mouth to an unconscious person, obtain immediate medical attention. If vomiting occurs spontaneously, keep airway clear. If swallowed DO NOT INDUCE VOMITING, give large amounts of water.

Seek immediate medical attention.

Inhalation:

Remove person from contaminated area. If breathing has stopped, resuscitate and administer oxygen if available. Seek immediate medical attention.

SECTION V - Fire-Fighting Measures

Flash Point 41.0°F
GCC - General Closed Cup

Special Fire-Fighting Procedures:

Enthone-OMI Inc.

_____ a subsidiary of ASARCO

www.enthone-omi.com

MATERIAL SAFETY DATA SHEET

MSDS Number 3435
MSDS Date 12/29/98
Spsds Date 08/24/93
Page Number 3 of 6

Wear NIOSH approved full protective clothing and self-contained breathing apparatus. Keep containers cool to prevent rupture and release of material.

Unusual Fire-Fighting Hazards:

Vapors may travel to sources of ignition distant from point of handling or spillage.

In a fire: Toxic phosgene, oxides of carbon, and hydrogen chloride.

Extinguishing Media:

Use carbon dioxide.

Use dry chemical.

Use foam.

SECTION VI - Accidental Release Measures

Avoid contact with skin, eyes, and clothing. Wear protective equipment (see Section VIII). Do not breathe mist or vapors. Eliminate sources of ignition such as heat, sparks, and open flames. Ensure that the area is properly ventilated. Contain spill and soak up in suitable absorbent. Shovel up into plastic-lined steel containers and cover. Dispose of in accordance with Local, State, and Federal regulations.

SECTION VII - Handling and Storage

Store in a cool, dry place. Keep away from acids and oxidizers. Loosen cover cautiously when opening.

Additional Information:

Vapors may travel to sources of ignition distant from point of handling or spillage.

Use appropriate grounding techniques to prevent build-up of electrostatic charges.

Work/Hygienic Practices:

Emergency eye wash and safety shower should be available. Wash thoroughly after handling.

SECTION VIII - Exposure Controls and Personal Protection

Occupational Exposure Limits

	ACGIH TLV	ACGIH TLV-C	ACGIH STEL	OSHA STEL	OSHA PEL
TOLUENE	50.00 PPM	NA	NA	NA	200.00 PPM
INGREDIENTS NOT KNOWN TO BE HAZARDOUS	NA	NA	NA	NA	NA

Enthone-OMI Inc.

a subsidiary of ASARCO

www.enthone-omi.com

MATERIAL SAFETY DATA SHEET

MSDS Number 3435
MSDS Date 12/29/98
Spsds Date 08/24/93
Page Number 4 of 6

PERCHLOROETHYLENE
25.00 PPM NA 100.00 PPM NA 100.00 PPM

Toluene is also subject to a 300 ppm OSHA PEL ceiling exposure value and an OSHA exposure for a 10-minute peak per 8-hr. shift of 500 ppm.

Perchloroethylene is also subject to a 200 ppm OSHA PEL ceiling exposure value and an OSHA exposure of 300 ppm for a 5-minute peak in any 3 hours.

Respirator:

Use NIOSH approved respirator when air concentration is greater than the TLV or PEL.

Use cartridge filter for organic vapors.

Eye Protection:

Chemical safety goggles recommended.

Face shield recommended.

Protective Clothing or Equipment:

Chemically resistant coveralls, hat, and shoes or boots.

PVC or nitrile gloves.

Neoprene gloves.

Ventilation:

Local exhaust recommended.

SECTION IX - Physical and Chemical Properties

Form	Liquid
Color	Light Green
Odor	Aromatic Hydrocarbon
Solubility	Negligible
pH Value	Not Applicable
Boiling Point	230.0°F - 232.0°F
Vapor Pressure (mmHg)	38.0@ 68.0°F
Melting Point	Not Available
Evaporation Rate	1.5 times Faster than n-Butyl Acetate
% Volatile By Weight	Approx. 64.0%
Specific Gravity:	1.067

SECTION X - Stability and Reactivity

Stability:

Stable under normal conditions. See Incompatibility Information.

Incompatibility (Materials to Avoid):

Oxidizing agents, acids, acid salts.

Enthone-OMI Inc.

a subsidiary of ASARCO

www.enthone-omi.com

MATERIAL SAFETY DATA SHEET

MSDS Number 3435
MSDS Date 12/29/98
Spsds Date 08/24/93
Page Number 5 of 6

Hazardous Decomposition Products:
In a fire: Toxic phosgene, oxides of carbon, and hydrogen chloride.
Hazardous Polymerization:
Hazardous polymerization will not occur.
Conditions to Avoid:
NA

SECTION XI - Toxicological Information

Route	Species	Exposure and Dose
TOLUENE		
Oral	Human	LDLo 50.0 mg/kg
Oral	Rat, adult	LD50 636.0 mg/kg
PERCHLOROETHYLENE		
Oral	Rat, adult	LD50 2629.0 mg/kg

SECTION XII - Ecological Information

Ecological information on this product is not available.

SECTION XIII - Disposal Considerations

For waste disposal of spent, spilled, or contaminated product contact a permitted TSDF (Treatment, Storage and Disposal Facility). Dispose of in accordance with all applicable Local, State, and Federal regulations.

SECTION XIV - Transport Information

Please contact the Regulatory Affairs Department at (203) 799-4917 for the most current shipping information.

SECTION XV - Regulatory Information

SARA TITLE III SECTION 313:

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right to Know Act of 1986 and of 40 CFR 372:

Ingredient Name	CAS Number	Percent
TOLUENE	108-88-3	< 50.0
PERCHLOROETHYLENE	127-18-4	< 15.0

Enthone-OMI Inc.
a subsidiary of ASARCO
www.enthone-omi.com

MATERIAL SAFETY DATA SHEET

MSDS Number 3435
MSDS Date 12/29/98
Spsds Date 08/24/93
Page Number 6 of 6

-PROP 65 (CARCINOGEN)

WARNING: This product contains a chemical known to the state of California to cause cancer.

Ingredient Name	CAS Number	Percent
PERCHLOROETHYLENE	127-18-4	< 15.0

-PROP 65 (TERATOGEN)

WARNING: This product contains a chemical known to the state of California to cause birth defects or other reproductive harm.

Ingredient Name	CAS Number	Percent
TOLUENE	108-88-3	< 50.0

SECTION XVI - Other Information

Disclaimer:

This Material Safety Data Sheet may be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Enthone-OMI Inc. furnishes the data contained herein in good faith at customer's request without liability or legal responsibility for same whatsoever, and no warranty or guarantee, express or implied, is made with respect to such data; nor does Enthone-OMI Inc. grant permission, recommendation, or inducement to infringe any patent whether owned by Enthone-OMI Inc. or others. The data is offered solely for your information and consideration. Since conditions of use are beyond Enthone-OMI's control, user assumes all responsibility and risk.

CAS=Chemical Abstract Service
IARC=International Agency for Research on Cancer
NA=Not Applicable
NI=No Relevant Information Available
NTP=National Toxicology Program
PEL=Permissible Exposure Limit
SDT=Standard Draize Test
STEL=Short Term Exposure Limit
TLV=ACGIH Threshold Limit Value
TLV-C=ACGIH Threshold Limit Value, Ceiling
TRADE SECRET=Claimed As Allowed Under 29 CFR 1910.1200

Enthone-OMI Inc.
a subsidiary of ASARCO
www.enthone-omi.com