

ETHACURE® 300 Curative

Material Safety Data Sheet

Revision Date: 12-Oct-2011
Supersedes 21-Jun-2007

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	ETHACURE® 300 Curative				
Chemical Name	6-Methyl-2,4-bis(methylthio)phenylene- 1,3-diamine; 2-methyl-4,6-bis(methylthio) phenylene-1,3-diamine				
Chemical Family	Aromatic diamine				
CAS-No	106264-79-3				
Formula	C9H14N2S2				
General function	Curing chemical				
Emergency Telephone Numbers	+1-225-344-7147		<table border="1" style="border-collapse: collapse; width: 100%;"> <tr> <td style="text-align: center;">NFPA</td> <td style="text-align: center;">HMIS</td> </tr> </table>	NFPA	HMIS
NFPA	HMIS				
For Non-Emergency	800-535-3030	Health	<table border="1" style="border-collapse: collapse; width: 100%;"> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">2</td> </tr> </table>	2	2
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		Flammability	<table border="1" style="border-collapse: collapse; width: 100%;"> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">1</td> </tr> </table>	1	1
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		Physical Hazards	<table border="1" style="border-collapse: collapse; width: 100%;"> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> </tr> </table>	0	0
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2. HAZARDS IDENTIFICATION

Warning

Emergency Overview

May be harmful if swallowed
May cause sensitization by skin contact.
Liver and kidney effects have been produced in laboratory animals.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Potential Health Effects

Eyes	Irritating to eyes.
Skin	Irritating to skin.
Inhalation	Inhalation of vapours in high concentration may cause irritation of respiratory system.
Ingestion	Harmful if swallowed.

See Section 11 for additional Toxicological information.

Occupational Exposure Limit See Section 8

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
4-methyl-2,6-bis(methylthio)-1,3-benzenediamine	102093-68-5	80
2-methyl-4,6-bis(methylthio)-1,3-benzenediamine	104983-85-9	20

4. FIRST AID MEASURES

Eye contact	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin Contact	After contact with skin, wash immediately with plenty of water. Wash clothing before reuse.
Inhalation	Move to fresh air.
Ingestion	If swallowed, seek medical advice immediately and show this container or label . Rinse mouth with water.
Notes to Physician	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Combustion/explosion hazards	In case of fire and/or explosion do not breathe fumes.
Suitable extinguishing media	Carbon dioxide, dry chemicals, foam, water spray (mist).
Hazardous Combustion Products	Oxides of carbon and nitrogen. Oxides of sulphur.
Protective Equipment and Precautions for Firefighters	Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Ventilate the area. Avoid contact with the skin and the eyes.
Environmental precautions	Contain any spill with dikes or absorbents to prevent migration and entry into sewers or streams . May require excavation of contaminated soil.
Methods for Cleaning up	Take up small spills with dry chemical absorbent. Large spills may be taken up with pump or vacuum and finished off with dry chemical absorbent.

7. HANDLING AND STORAGE

Handling	Mechanical ventilation is recommended. Local exhaust is needed at source of vapours.
Storage	Keep under inert gas. Keep away from heat. Keep away from humidity.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls	Ensure adequate ventilation, especially in confined areas.
Personal Protective Equipment:	
Eye/face Protection	Chemical goggles or face shield with safety glasses.
Skin Protection	Wear protective gloves/clothing.
Hand protection	Gloves resistant to chemical permeation.
Respiratory protection	Approved supplied-air respirator when exposed to vapours from heated material.

9. PHYSICAL AND CHEMICAL PROPERTIES
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Flash point	176°C(PMCC)
Flammable limits (LEL, UEL)	No data available
Form	Liquid
Vapor pressure	<0.89 mmHg146 °C
Color	Amber.
Density	1.2 g/ml(20°C)
Odor	Amine.
Vapor density	No data available
Water Solubility	<1% (20°C)
Boiling Point	Decomposes at 353 °C
Melting/freezing point	No data available
Viscosity, dynamic	No data available
Viscosity, kinematic	0.00691 m ² /s(20°C)
Partition Coefficient (log Pow)	2.63(20 °C)
Flammability (solid, gas)	Not applicable
Oxidizing Properties	Not applicable
Explosive Properties	Not applicable

10. STABILITY AND REACTIVITY

Stability	Stable.
Conditions to Avoid	Keep away from humidity.
Materials to avoid	Strong acids. Strong oxidizing agents.
Hazardous decomposition products	Oxides of carbon, nitrogen and sulphur.
Hazardous Polymerization	None under normal processing.

11. TOXICOLOGICAL INFORMATION

Routes of exposure	No information available
Health and hazardous information	
Acute toxicity Skin contact Eye contact Inhalation Skin sensitization Carcinogenic effects	May be harmful if swallowed. Not irritating Not irritating. Not irritating yes Oral carcinogenicity test : (2 years): Did not show carcinogenic effects in animal experiments.
Mutagenic Effects	Ames Test : Positive and negative results obtained. In vitro mutagenicity test : Not genotoxic in mammalian cell systems. Mouse micronucleus test : negative.
Reproductive Effects Target Organ Effects Chronic Effects	No information available No information available Rats given this product in the diet for up to 90 days showed increased liver metabolic activity. There were kidney effects observed that were unique to male rats. These effects were similar to changes that have been observed in male rats given hydrocarbons. These effects resolved in animals allowed 30 days recovery. Rats treated for 24 months did not have microscopic alterations in any tissues compared to control animals. Tumors seen in control and treated animals were usual for the age and strain of rats. Details of these studies are available upon request.
Aspiration Hazard Statement	No information available
Signs and Symptoms of Overexposure	No information available
LD50 Oral: LD50 Dermal:	Rat Oral LD50: 1515 mg/kg (rat) Rabbit dermal LD50: >2000 mg/kg (rabbit)
Other data	Based on test data, may cause sensitization by skin contact.

12. ECOLOGICAL INFORMATION

Ecotoxicity	
LC50 EC50 EC50	LC50/96h/rainbow trout :7.3mg/L EC50/48h/Daphnia :0.9mg/L EC50/72h/algae : (Selenastrum capricornutum)7.6mg/L
Ecotoxicity effects	Very toxic to aquatic organisms
Persistence/Degradability	Not readily biodegradable. (OECD 301 D)
Bioaccumulation/ Accumulation	No information available
Mobility in Environmental Media	No information available
Other adverse effects	May cause long-term adverse effects in the aquatic environment

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method	This material and its container must be disposed of as hazardous waste. Dispose in a safe manner in accordance with local/national regulations.
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14. TRANSPORT INFORMATION

DOT

Proper Shipping Name Environmentally hazardous substance liquid,N.O.S. (6-Methyl-2,4-bis(methylthio)phenylene-1,3-diamine)
Hazard Class 9
UN No. 3082
Packing Group III
Marine Pollutant: Y.
Description UN 3082 Environmentally hazardous substance liquid,N.O.S. (6-Methyl-2,4-bis(methylthio)phenylene-1,3-diamine), 9, III, Marine Pollutant

IMDG/IMO

IMO Class 9
Packing Group III
UN-No 3082
IMO Labelling and Marking 9 + Marine Pollutant Marking
Proper Shipping Name Environmentally hazardous substance liquid,N.O.S. (6-Methyl-2,4-bis(methylthio)phenylene-1,3-diamine)
EmS F-A, S-F
Marpol - Annex II Not determined
Marpol - Annex III Marine Pollutant
Transport Description UN 3082 Environmentally hazardous substance, liquid, n.o.s (6-Methyl-2,4-bis(methylthio)phenylene-1,3-diamine), 9, III, Marine pollutant

IATA/ICAO

IATA/ICAO Class 9
Packing Group III
UN-No 3082
IATA/ICAO Labelling/Marking 9 + 'Environmentally hazardous substance' mark
Passenger Aircraft Maximum net quantity per package: 450 L
Cargo aircraft only Maximum net quantity per package: 450 L
Proper shipping name Environmentally hazardous substance liquid,N.O.S. (6-Methyl-2,4-bis(methylthio)phenylene-1,3-diamine)
Transport Description UN 3082 Environmentally hazardous substance, liquid, n.o.s (6-Methyl-2,4-bis(methylthio)phenylene-1,3-diamine), 9, III,

15. REGULATORY INFORMATION

International Inventories	TSCA	DSL	NDSL	AICS	EINECS	ELINCS	ENCS	KECL	PICCS	CHINA	NZIoC
ETHACURE® 300 Curative	-	-	-	X	-	X	-	-	-	X	X

(X) Complies (-) Does not Comply

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization

Chronic Health Hazard	Yes
Acute Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Reportable and Threshold Planning Quantities

No ingredients have RQs or TPQs under SARA or CERCLA.

State Regulations

No components subject to "Right-To-Know" legislation in the following States; California, Massachusetts, New Jersey, and Pennsylvania.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazards

D1B Toxic materials

16. OTHER INFORMATION

Prepared By

Health & Environment Department
Albemarle Corporation

FOR ADDITIONAL NONEMERGENCY PRODUCT INFORMATION, CONTACT:

HEALTH AND ENVIRONMENT DEPARTMENT
ALBEMARLE CORPORATION
451 FLORIDA ST.
BATON ROUGE, LA. 70801
(800) 535-3030

Revision Date:

12-Oct-2011

Revision Number:

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The information contained herein is accurate to the best of our knowledge. The Company makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances.