SAFETY DATA SHEET

according to OSHA Hazard Communication Standard 29CFR 1910.1200 (HCS 2012)

ETHACURE® 300

SDS Number: RS_000001643

Version	Revision Date:	Date of last issue: 06/18/2020	Print Date:
1.3	11/18/2020	Date of first issue: 11/26/2019	01/27/2022

SECTION 1. IDENTIFICATION

Product name : ETHACURE® 300

Manufacturer or supplier's details

Company name of supplier : Albemarle Corporation

Address : 4250 Congress Street, Suite 900
Charlotte , NC 28209
United States of America (USA)

Telephone : 980.299.5700

Telefax : 980.299.5512

Emergency telephone : +32 (0) 70-233-201 (EUROPE)
(+1)225-344-7147 (US and WORLDWIDE)
+65-6733-1661 (ASIA PACIFIC)
+86-532-8388-9090 (CHINA)
+61 2 8014 4558 or 18000 74234 (AUSTRALIA only)

Contact person product safety : DEPARTMENT OF PRODUCT SAFETY

E-mail address : PRODUCTSAFETY@ALBEMARLE.COM

Recommended use of the chemical and restrictions on use

Recommended use : Curing chemical

Restrictions on use : None known.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Acute toxicity (Oral) : Category 4

Skin sensitization : Category 1

Short-term (acute) aquatic hazard : Category 1

Long-term (chronic) aquatic hazard : Category 1

GHS label elements

Hazard pictograms :

Signal Word : Warning

Hazard Statements : H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements :

Prevention:

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing must not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves.

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.
P391 Collect spillage.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
1,3-Benzenediamine, 4-methyl-2,6-bis(methylthio)-	102093-68-5	80
1,3-Benzenediamine, 2-methyl-4,6-	104983-85-9	20

bis(methylthio)-		

SECTION 4. FIRST AID MEASURES

General advice	:	First Aid responders should pay attention to self-protection and use the recommended protective clothing Ensure that eyewash stations and safety showers are close to the workstation location.
If inhaled	:	Move to fresh air. If breathing is difficult, give oxygen. If breathing is irregular or stopped, administer artificial respiration. Keep the victim calm and in a semi-upright position. Consult a physician.
In case of skin contact	:	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash clothing before reuse. Get medical attention if irritation develops and persists.
In case of eye contact	:	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
If swallowed	:	Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. If accidentally swallowed obtain immediate medical attention.
Most important symptoms and effects, both acute and delayed	:	No information available. See Section 2.
Notes to physician	:	Treat symptomatically. For specialist advice physicians should contact the Poisons Information Service.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Carbon dioxide (CO2) Dry chemical Foam Water mist Keep containers and surroundings cool with water spray.
Unsuitable extinguishing media	:	No information available.
Specific hazards during fire	:	May release toxic, irritating and/or corrosive gases.

fighting		In the event of fire and/or explosion do not breathe fumes.
Hazardous combustion products	:	Carbon oxides Nitrogen oxides (NOx) Sulfur oxides
Further information	:	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for fire-fighters	:	Wear full protective clothing and self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Evacuate personnel to safe areas. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Wear personal protective equipment. Refer to protective measures listed in sections 7 and 8.
Environmental precautions	:	Do not flush into surface water or sanitary sewer system. Do not allow contact with soil, surface or ground water. Prevent further leakage or spillage if safe to do so. Contain any spill with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods and materials for containment and 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. Pump up the acid water coming from the gaz scrubber into a container properly labelled and acid-resistant. Clean contaminated floors and objects thoroughly while observing environmental regulations. May require excavation of contaminated soil.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Take precautionary measures against static discharge.
Advice on safe handling	:	Provide sufficient air exchange and/or exhaust in work rooms. Local exhaust is needed at source of vapours. Avoid contact with skin and eyes. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Wear protective gloves/ protective clothing/ eye protection/ face protection. For personal protection see section 8.

Conditions for safe storage	:	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Keep away from direct sunlight.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures	:	Use with local exhaust ventilation. Use ventilation adequate to keep exposures below the relevant acute and long-term DNEL values. Organisational measures to avoid touching equipment surfaces covered with the substance. Change contaminated or damaged gloves immediately. Training in proper use of PPE provided and ensured via an inspection policy.

Personal protective equipment

Respiratory protection	:	Approved organic vapor respirator when exposed to vapors from heated material. In case of insufficient ventilation, wear suitable respiratory equipment. Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.
Hand protection Material	:	Gloves resistant to chemical permeation.
Remarks	:	Nitrile rubber Neoprene gloves
Eye protection	:	Wear safety glasses with side shields or goggles.
Skin and body protection	:	DERMAL PROTECTION: Dermal exposure is considered the primary route of exposure. BODY: A protective apron or suit such as polyethene tyvek or equivalent should be used to minimize exposure from splashes.
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	viscous liquid
Color	:	amber
Odor	:	amine-like
Odor Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	< 32 °F / 0 °C
Boiling point/boiling range	:	> 437 °F / > 225 °C Method: OECD Test Guideline 103
Flash point	:	349 °F / 176 °C Method: Regulation (EC) No. 440/2008, Annex, A.9, Pensky-Martens closed cup
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Flammability (liquids)	:	The product is not flammable.
Self-ignition	:	> 752 °F / > 400 °C 1,013 hPa Method: Regulation (EC) No. 440/2008, Annex, A.16
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	< 1 Pa (77 °F / 25 °C)
Relative vapor density	:	No data available
Relative density	:	No data available
Density	:	1.2 g/cm3 (68 °F / 20 °C)
Solubility(ies)		
Water solubility	:	162 mg/l (68 °F / 20 °C)
Solubility in other solvents	:	No data available

Partition coefficient: n-octanol/water	:	log Pow: 2.5 (68 °F / 20 °C) Method: OECD Test Guideline 107
Autoignition temperature	:	No data available
Decomposition temperature	:	Not applicable
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	691 mm2/s (68 °F / 20 °C)
Explosive properties	:	No chemical groups associated to explosive properties.
Oxidizing properties	:	No chemical groups associated to oxidizing properties.
Self-heating substances	:	The substance or mixture is not classified as self heating.
Molecular weight	:	ca. 214.36 g/mol

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use.
Conditions to avoid	:	Protect from moisture.
Incompatible materials	:	Strong oxidizing agents Strong acids
Hazardous decomposition products	:	Carbon oxides Nitrogen oxides (NOx) Sulfur oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate: 1,516 mg/kg Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate: 2,500 mg/kg

Method: Calculation method

Components:

1,3-Benzenediamine, 4-methyl-2,6-bis(methylthio)-:

Acute oral toxicity : LD50 (Rat, male and female): 1,515 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402

1,3-Benzenediamine, 2-methyl-4,6-bis(methylthio)-:

Acute oral toxicity : LD50 (Rat, male and female): 1,515 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation

Components:

1,3-Benzenediamine, 4-methyl-2,6-bis(methylthio)-:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

1,3-Benzenediamine, 2-methyl-4,6-bis(methylthio)-:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

Serious eye damage/eye irritation

Components:

1,3-Benzenediamine, 4-methyl-2,6-bis(methylthio)-:

Species : Rat
Result : No eye irritation
Method : OECD Test Guideline 405

1,3-Benzenediamine, 2-methyl-4,6-bis(methylthio)-:

Species : Rat
Result : No eye irritation
Method : OECD Test Guideline 405

Respiratory or skin sensitization

Components:

1,3-Benzenediamine, 4-methyl-2,6-bis(methylthio)-:

Test Type	:	Maximization Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	May cause sensitization by skin contact.

1,3-Benzenediamine, 2-methyl-4,6-bis(methylthio)-:

Test Type	:	Maximization Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	May cause sensitization by skin contact.

Germ cell mutagenicity

Components:

1,3-Benzenediamine, 4-methyl-2,6-bis(methylthio)-:

Genotoxicity in vitro	:	Test Type: Microbial mutagenesis assay (Ames test) Test system: Salmonella typhimurium Metabolic activation: with metabolic activation Method: OECD Test Guideline 471 Result: positive Test Type: In vitro mammalian cell gene mutation test Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Result: negative
Genotoxicity in vivo	:	Test Type: Micronucleus test Species: Mouse Application Route: Oral Result: negative
Germ cell mutagenicity - Assessment	:	Not classified due to data which are conclusive although insufficient for classification.

1,3-Benzenediamine, 2-methyl-4,6-bis(methylthio)-:

Genotoxicity in vitro	:	Test Type: Microbial mutagenesis assay (Ames test) Test system: Salmonella typhimurium Metabolic activation: with metabolic activation

Method: OECD Test Guideline 471
Result: positive

Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse
Application Route: Oral
Result: negative

Germ cell mutagenicity - Assessment : Not classified due to data which are conclusive although insufficient for classification.

Carcinogenicity

Components:

1,3-Benzenediamine, 4-methyl-2,6-bis(methylthio)-:

Species : Rat, male and female
Application Route : oral (feed)
Exposure time : 2 y
NOAEL : >= 200 ppm
Result : Animal testing did not show any carcinogenic effects.

Carcinogenicity - Assessment : Not classified due to data which are conclusive although insufficient for classification.

1,3-Benzenediamine, 2-methyl-4,6-bis(methylthio)-:

Species : Rat, male and female
Application Route : oral (feed)
Exposure time : 2 y
NOAEL : >= 200 ppm
Result : Animal testing did not show any carcinogenic effects.

Carcinogenicity - Assessment : Not classified due to data which are conclusive although insufficient for classification.

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is

identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Components:

1,3-Benzenediamine, 4-methyl-2,6-bis(methylthio)-:

Reproductive toxicity - Assessment : Not classified due to lack of data.

1,3-Benzenediamine, 2-methyl-4,6-bis(methylthio)-:

Reproductive toxicity - Assessment : Not classified due to lack of data.

STOT-single exposure

Components:

1,3-Benzenediamine, 4-methyl-2,6-bis(methylthio)-:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

1,3-Benzenediamine, 2-methyl-4,6-bis(methylthio)-:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT-repeated exposure

Components:

1,3-Benzenediamine, 4-methyl-2,6-bis(methylthio)-:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

1,3-Benzenediamine, 2-methyl-4,6-bis(methylthio)-:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

1,3-Benzenediamine, 4-methyl-2,6-bis(methylthio)-:

Species : Rat, male and female
NOAEL : >= 400 mg/kg bw/day
Application Route : oral (feed)

Exposure time	:	28 d
Method	:	OECD Test Guideline 407
Remarks	:	No significant adverse effects were reported

1,3-Benzenediamine, 2-methyl-4,6-bis(methylthio)-:

Species	:	Rat, male and female
NOAEL	:	>= 400 mg/kg bw/day
Application Route	:	oral (feed)
Exposure time	:	28 d
Method	:	OECD Test Guideline 407
Remarks	:	No significant adverse effects were reported

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

1,3-Benzenediamine, 4-methyl-2,6-bis(methylthio)-:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 7.3 mg/l Exposure time: 96 h Test Type: semi-static test Analytical monitoring: yes Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.9 mg/l End point: Immobilization Exposure time: 48 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 7.6 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 NOEC (Pseudokirchneriella subcapitata (green algae)): 1.9 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 0.087 mg/l End point: Reproduction Exposure time: 21 d Test Type: flow-through test Analytical monitoring: yes Method: OECD Test Guideline 211

Ecotoxicology Assessment

Acute aquatic toxicity	:	Very toxic to aquatic life.
Chronic aquatic toxicity	:	Very toxic to aquatic life with long lasting effects.

1,3-Benzenediamine, 2-methyl-4,6-bis(methylthio)-:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 7.3 mg/l Exposure time: 96 h Test Type: semi-static test Analytical monitoring: yes Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.9 mg/l End point: Immobilization Exposure time: 48 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 7.6 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 NOEC (Pseudokirchneriella subcapitata (green algae)): 1.9 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 0.087 mg/l End point: Reproduction Exposure time: 21 d Test Type: flow-through test Analytical monitoring: yes Method: OECD Test Guideline 211

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

Persistence and degradability

Components:

1,3-Benzenediamine, 4-methyl-2,6-bis(methylthio)-:

Biodegradability : aerobic
Inoculum: activated sludge
Dissolved organic carbon (DOC)
Result: Not readily biodegradable.
Biodegradation: 2 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

Stability in water : Degradation half life: > 1 d - 1 yr (40 °C) pH: 4 - 9

1,3-Benzenediamine, 2-methyl-4,6-bis(methylthio)-:

Biodegradability : aerobic
Inoculum: activated sludge
Dissolved organic carbon (DOC)
Result: Not readily biodegradable.
Biodegradation: 2 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

Stability in water : Degradation half life: > 1 d - 1 yr (40 °C) pH: 4 - 9

Bioaccumulative potential

Components:

1,3-Benzenediamine, 4-methyl-2,6-bis(methylthio)-:

Bioaccumulation : Species: Cyprinus carpio (Carp)
Method: OECD Test Guideline 305C
Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: 2.5 (68 °F / 20 °C)
Method: OECD Test Guideline 107

1,3-Benzenediamine, 2-methyl-4,6-bis(methylthio)-:

Bioaccumulation : Species: Cyprinus carpio (Carp)
Method: OECD Test Guideline 305C
Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water	:	log Pow: 2.5 (68 °F / 20 °C) Method: OECD Test Guideline 107

Mobility in soil

Components:

1,3-Benzenediamine, 4-methyl-2,6-bis(methylthio)-:

Distribution among environmental compartments	:	log Koc: 3.01 - 3.14 Method: OECD Test Guideline 121 Remarks: Moderately mobile in soils

1,3-Benzenediamine, 2-methyl-4,6-bis(methylthio)-:

Distribution among environmental compartments	:	log Koc: 3.01 - 3.14 Method: OECD Test Guideline 121 Remarks: Moderately mobile in soils

Other adverse effects

Product:

Ozone-Depletion Potential	:	Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.
Contaminated packaging	:	Refer to manufacturer/ supplier for information on recovery/ recycling.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (6-methyl-2,4-bis(methylthio)phenylene-1,3-diamine)

Class	:	9
Subsidiary risk	:	ENVIRONM.
Packing group	:	III
Labels	:	9 (ENVIRONM.)

IATA-DGR

UN/ID No.	:	UN 3082
Proper shipping name	:	Environmentally hazardous substance, liquid, n.o.s. (6-methyl-2,4-bis(methylthio)phenylene-1,3-diamine)
Class	:	9
Packing group	:	III
Labels	:	Miscellaneous
Packing instruction (cargo aircraft)	:	964
Packing instruction (passenger aircraft)	:	964
Environmentally hazardous	:	yes

IMDG-Code

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (6-methyl-2,4-bis(methylthio)phenylene-1,3-diamine)
Class	:	9
Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F
Marine pollutant	:	yes
Remarks	:	"IMDG-Code segregation group not applicable".

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

Not regulated as a dangerous good

Remarks	:	Shipment by ground under DOT is non-regulated; however it may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Acute toxicity (any route of exposure)
Respiratory or skin sensitization

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307
This product does not contain any priority pollutants related to the U.S. Clean Water Act

US State Regulations

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

1,3-Benzenediamine, 4-methyl-2,6-bis(methylthio)-	102093-68-5
1,3-Benzenediamine, 2-methyl-4,6-bis(methylthio)-	104983-85-9

Maine Chemicals of High Concern

Product does not contain any listed chemicals

Vermont Chemicals of High Concern

Product does not contain any listed chemicals

Washington Chemicals of High Concern

Product does not contain any listed chemicals

The ingredients of this product are reported in the following inventories:

TCSI	:	On the inventory, or in compliance with the inventory
TSCA	:	All substances listed as active on the TSCA inventory
AICS	:	On the inventory, or in compliance with the inventory
DSL	:	This product contains the following components listed on the Canadian NDSL. All other components are on the Canadian DSL. proprietary
ENCS	:	Not in compliance with the inventory
ISHL	:	On the inventory, or in compliance with the inventory
KECI	:	Not in compliance with the inventory
PICCS	:	Not in compliance with the inventory
IECSC	:	On the inventory, or in compliance with the inventory
NZIoC	:	On the inventory, or in compliance with the inventory
ELINCS	:	On the inventory, or in compliance with the inventory

TSCA list

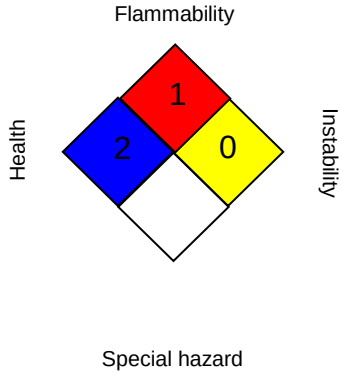
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

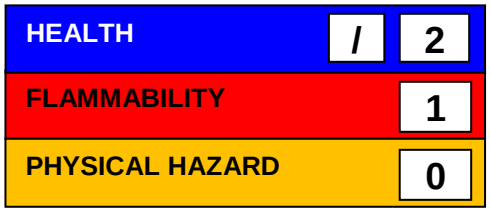
SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concern-

ing the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 11/18/2020

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

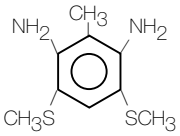
US / Z8

ALBEMARLE® CORPORATION

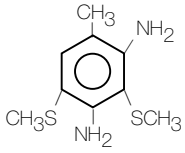
ETHACURE® 300 Curative

Description

ETHACURE 300 curative, a liquid aromatic diamine with low chronic toxicity, is an effective curative for polyurethane cast elastomers. It is used in both hot and room-temperature casting. Other uses include: a slower chain-extender for polyurethane-urea and polyurea elastomers in reaction injection molding (RIM), structural RIM (SRIM) and hand-applied and spray coating applications–alone or in blends with ETHACURE 100 Curative.



(2, 6-isomer)



(2, 4-isomer)

Dimethylthiotoluenediamine (DMTDA)
(Major isomers)
CAS 106264-79-3

3, 5-dimethylthio-2, 6-toluenediamine;
3, 5-dimethylthio-2, 4-toluenediamine

Typical Composition

Dimethylthiotoulenediamine, %	95-97
Monomethylthiotoulenediamine, %	2-3
Total diamines, %	> 99
Water, %	< 0.08

Typical Properties

Appearance	clear, yellow liquid*
Molecular weight	214
Boiling point, at 16.8 torr	
°C	200
°F	392
Density, at 20°C [68°F]	
g/mL	1.208
lbs/gal	10.08
Pour point, °F (°C)	39 (4)
Flash point, (PMCC), °F (°C)	349 (176)
Vapor pressure at 20°C [68°F], mm Hg	< 0.01
Viscosity at 20°C [68°F], centistokes	690
Solubility, 20°C, wt %	
Ethanol	miscible
Toluene	miscible
Water	< 0.03
Heptane	3.5
Equivalent weight with isocyanates	107
Equivalent weight with epoxies	53.5

***Darkens with time, upon exposure to air**

Shipping Information

Container Information

Drums: 5-gallon and 55-gallon, non-returnable, steel

Shipping Classification

U.S. DOT: not regulated in transportation
IMCO or ICAO: not regulated in transportation

Other Information:

U.S. TSCA Chemical Inventory Number: CAS 106264-79-3

Toxicology

For information on the toxicology and safe handling of this product, refer to the Material Safety Data Sheet. Copies are available upon request.

ALBEMARLE® CORPORATION

AMERICAS 451 Florida Street • Baton Rouge, Louisiana 70801-1765 • Phone: 225-388-7402 • Toll-Free: 800-535-3030 • Fax: 225-388-7848
EUROPE Parc Scientifique Einstein • Rue du Bosquet 9 • B-1348 Louvain-la-Neuve Sud, Belgium • Phone: 32-10-48-1711 • Fax: 32-10-48-1717
ASIA PACIFIC 111 Somerset Road #13-03 • Singapore 238164 • Phone: 65-732-6286 • Fax: 65-737-4155
16th Floor, Fukoku Seimei Building • 2-2, Uchisaiwaicho, 2-Chome • Chiyoda-ku, Tokyo 100, Japan • Phone: 81-3-5251-0791 • Fax: 81-3-3500-5623
China World Tower, Room 1317 • No. 1 Jian Guo Men Wai Avenue • Beijing 100004 China • Phone: 86-10-6505-4153 • Phone: 86-10-6505-4154 • Fax: 86-10-6505-4150

