

Safety Data Sheet

Product Name: DOI Hardener

Product identifier: 102310

Revision Date: 08-19-2016

Replaces:

EVERCOAT®

1. Identification

Product identifier used on the label:

Product Name: DOI Hardener

Product identifier: 102310

Other means of identification

Synonyms: No data available

Recommended use of the chemical and restrictions on use: Polymerization initiator/catalyst

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Chemical Manufacturer /
Importer / Distributor: ITW Evercoat
a division of Illinois Tool Works Inc.
6600 Cornell Road
Cincinnati, OH 45242
513-489-7600

Emergency phone number: CHEMTREC: 1-800-424-9300
CANUTEC: 1-613-996-6666

2. Hazard(s) identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

GHS Hazard
Symbols:



GHS Classification: Respiratory Sensitisation Category 1
Skin Sensitisation Category 1
Germ Cell Mutagenicity Category 1B
Flammable Liquid Category 3
Hazardous to the aquatic environment - Acute Category 3
Hazardous to the aquatic environment - Chronic Category 3

GHS Signal Word: Danger

GHS Hazard Statements: Flammable liquid and vapour.
May cause an allergic skin reaction.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause genetic defects.

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GHS Precautionary Statements:

Safety Precautions:

Harmful to aquatic life.
Harmful to aquatic life with long lasting effects.

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
Wear respiratory protection.

First Aid Measures:

IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
Rinse skin with water/shower.
IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF exposed or concerned: Get medical advice/attention.
Specific treatment (see on this label).
If skin irritation or rash occurs: Get medical advice/attention.
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
Wash contaminated clothing before reuse.

Storage:

In case of fire: Use appropriate media to extinguish.
Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal:

Dispose of contents/container in accordance with local/regional/national/international regulation for hazardous wastes.

Hazards not otherwise classified:

No data available

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3. Composition/information on ingredients

Chemical Component:	CAS number and other unique identifiers	% (or range) of ingredient
n-Butyl acetate	123-86-4	7 - 15
Solvent naphtha petroleum	64742-95-6	5 - 10
Heptyl Acetate	90438-79-2	5 - 10
1,2,4 Trimethylbenzene	95-63-6	1 - 5
Isophorone diisocyanate	4098-71-9	0.1 - 1
Hexamethylene diisocyanate	822-06-0	0.1 - 1
Xylene	1330-20-7	0.1 - 1
Ethyl Benzene	100-41-4	0.1 - 1

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures

Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion:

- Eye Contact:** Immediately flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention and monitor the eye daily as advised by your physician.
- Skin Contact:** Wash with soap and water. Remove contaminated clothing and laundry. Get medical attention if irritation develops or persists. Thoroughly wash or discard clothing and shoes before reuse.
- Inhalation:** Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately.
- Ingestion:** Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this MSDS. Induce vomiting as a last measure. Induced vomiting may lead to aspiration of the material into the lungs potentially causing chemical pneumonitis that may be fatal.

Most important symptoms/effects, acute and delayed:

Most important symptoms/effects (Acute): No data available

Most important symptoms/effects (Delayed): No data available

Indication of immediate medical attention and special treatment needed, if necessary: No additional first aid information available

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5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media:

Suitable extinguishing media: Use alcohol resistant foam, carbon dioxide, dry chemical, or water spray when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the fire. Do not direct a water stream directly into the hot burning liquid.

Unsuitable extinguishing media: No data available

Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products):

Fire and/or Explosion Hazards: Vapors may be ignited by sparks, flames or other sources of ignition if material is above the flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide, Hydrogen cyanide, Nitrogen containing gases

Special protective equipment and precautions for fire-fighters: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

6. Accidental release measures

Personal precautions, protective equipment, and emergency procedures: Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section VIII of this MSDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill.

Methods and materials for containment and cleaning up: No special spill clean-up considerations. Collect and discard in regular trash.

7. Handling and storage

Precautions for safe handling: Harmful or irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area.

Conditions for safe storage, including any incompatibilities

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Conditions for safe storage:	Store in a cool dry place. Isolate from incompatible materials.
Materials to Avoid/Chemical Incompatibility:	Strong oxidizing agents Strong alkalies Strong acids Acids Amines Water Alcohols

8. Exposure controls/personal protection

OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available:

Chemical Component	OSHA PEL	ACGIH TLV-TWA	ACGIH STEL
n-Butyl acetate	150 ppm	150 ppm	200 ppm STEL; 950 mg/m ³ STEL
1,2,4 Trimethylbenzene	No data available	25 ppm	No data available
Isophorone diisocyanate	No data available	0.005 ppm	No data available
Hexamethylene diisocyanate	No data available	0.005 ppm	No data available
Xylene	100 ppm	100 ppm	150 ppm
Ethyl Benzene	100 ppm	100 ppm	No data available

Appropriate engineering controls: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure. Engineering controls must be designed to meet the OSHA chemical specific standard in 29 CFR 1910. Ventilation is required to maintain operator exposure below published exposure limits. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits

Individual protection measures, such as personal protective equipment:

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Wear additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Do not wear contact lenses. Have an eye wash station available. Wear goggles and a Face shield

Skin Protection: Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Where contact is likely, wear chemical resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield

Respiratory Protection: Respiratory protection will be required when handling this product. Use respirators only if ventilation cannot be used to eliminate symptoms or reduce the exposure to below acceptable levels. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements

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found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2-1992). A written respiratory protection program, including provisions for medical certification, training, fit testing, exposure assessments, maintenance, inspection, cleaning, and convenient, sanitary storage must be implemented. Follow a respiratory protection program that meets 29 CFR 1910.134 and ANSI Z88.2 requirements whenever work place conditions warrant the use of a respirator. Wear a NIOSH approved respirator if any exposure is possible.

Other Protective Equipment:

Wear goggles and a Face shield Where contact is likely, wear chemical resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield

9. Physical and chemical properties

Appearance (physical state, color, etc.):

Appearance (physical state):	Liquid
Color:	Clear Colorless
Odor:	Aromatic solvent odor
Odor threshold:	No data available
pH:	7
Melting Point/Freezing Point (°C):	No data available
Initial Boiling Point and Boiling Range (°C):	126
Flash Point (°C):	44
Evaporation Rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits:	
Upper Flammable/Explosive Limit (%):	7.6 %
Lower Flammable/Explosive Limit (%):	1.7 %
Vapor Pressure:	No data available
Vapor Density:	No data available
Relative Density:	1.05
Solubility(ies):	Insoluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition Temperature (°C):	No data available
Decomposition Temperature:	No data available
Viscosity:	No data available

10. Stability and reactivity

Reactivity:	No data available
Chemical stability:	Stable under normal conditions.
Possibility of hazardous reactions:	No data available

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Conditions to avoid (e.g., static discharge, shock, or vibration):	High temperatures Contamination
Incompatible materials:	Strong oxidizing agents Strong alkalies Strong acids Acids Amines Water Alcohols
Hazardous decomposition products:	Carbon dioxide Carbon monoxide Hydrogen cyanide Nitrogen containing gases

11. Toxicological information

Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Inhalation, Skin contact, Eye contact, Absorption, Ingestion

Symptoms related to the physical, chemical and toxicological characteristics: No data available

Delayed and immediate effects and also chronic effects from short- and long-term exposure:

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation: Can cause severe respiratory irritation, dizziness, weakness, fatigue, nausea, headache and possible unconsciousness. Harmful! Can cause severe irritation or burns and lung inflammation. Central nervous system effects such as dizziness, weakness, fatigue, nausea, headache, and unconsciousness are possible. Other possible symptoms include; wheezing and coughing due to pulmonary edema (fluid build-up in lungs).

Inhalation Toxicity: Harmful! Can cause systemic damage (see "Target Organs")

Skin Contact: Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.

Skin Absorption: May cause irritation and minor systemic damage.

Eye Contact: Can cause severe irritation. Eye contact may result in corneal injury. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. Temporary vision impairment (cloudy or blurred vision) is possible.

Ingestion Irritation: Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea. Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal.

Ingestion Toxicity: Harmful if swallowed. May cause systemic poisoning.

Long-Term (Chronic) Health Effects:

Carcinogenicity: None of the substances have been shown to cause cancer in long term animal studies. Not a carcinogen according to NTP, IARC, or OSHA.

Reproductive and Developmental Toxicity: No data available to indicate product or any components present at greater than 0.1% may cause birth defects.

Mutagenicity: May cause genetic defects.

Inhalation: Upon prolonged and/or repeated exposure, can cause severe respiratory irritation, dizziness, weakness, fatigue, nausea, headache and possible unconsciousness.

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Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs")

Skin Contact: Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.

Skin Absorption: Upon prolonged or repeated exposure, harmful if absorbed through the skin. May cause minor systemic damage.

Numerical measures of toxicity (such as acute toxicity estimates)

Component Toxicology Data

Chemical Component	Oral LD50	Dermal LD50	Inhalation LC50
n-Butyl acetate	Oral LD50 Rat 13100 mg/kg		Inhalation LC50 (4h) Rat 2000 ppm
1,2,4 Trimethylbenzene			Inhalation LC50 (4h) Rat 18000 mg/m3
Hexamethylene diisocyanate	Oral LD50 Rat 738 mg/kg		
Xylene	Oral LD50 Rat 4300 mg/kg		Inhalation LC50 (4h) Rat 5000 ppm

Whether the hazardous chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA

Chemical Name	OSHA Carcinogen	IARC Carcinogen	NTP Carcinogen
No data available	N	N	N

12. Ecological information

Ecotoxicity (aquatic and terrestrial, where available): Harmful to aquatic life. Toxic to aquatic life with long lasting effects. Toxic to aquatic life. Components of this product are hazardous to wildlife and aquatic life.

Persistence and degradability: No data available

Bioaccumulative potential: No data

Mobility in soil: No data available

Other adverse effects (such as hazardous to the ozone layer): No data available

Ecological Toxicity Data

Chemical Component	Aquatic EC50 Crustacea	Aquatic ERC50 Algae	Aquatic LC50 Fish
n-Butyl acetate			Aquatic LC50 (96h) 17 - 19 MG/L
Xylene			Aquatic LC50 (96h) 7.711 - 9.591 MG/L

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13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

Description of waste residues: Spent or discarded material is a hazardous waste.

Waste treatment methods (including packaging): Dispose of by incineration following Federal, State, Local, or Provincial regulations.

Waste Disposal Code(s): D001

14. Transport information

UN number: UN1263

UN proper shipping name: PAINT RELATED MATERIAL

Transport hazard class(es): 3

Packing group: II

The shipper is responsible for following all applicable regulations. The transportation classification provided is based on ITW Evercoat original packaging, which is suitable for domestic ground transport only.

15. Regulatory information

Safety, health and environmental regulations specific for the product in question

TSCA Status: All components in this product are on the TSCA Inventory.

Regulated Components

Chemical Component	CAS number and other unique identifiers	CERCLA	SARA EHS	SARA 313	California Prop 65
Hexamethylene diisocyanate	822-06-0	N	N	Y	N
Ethyl Benzene	100-41-4	N	N	N	Y
Isophorone diisocyanate	4098-71-9	N	N	Y	N
Xylene	1330-20-7	N	N	Y	N

16. Other information, including date of preparation or last revision.

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Disclaimer: NOTICE: The information accumulated herein is believed to be correct as of the date issued from sources, which are believed to be accurate and reliable. Since it is not possible to anticipate all circumstances of use,

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recipients are advised to confirm, in advance of need, that the information is current, applicable and suitable to their circumstances