

Safety Data Sheet

Product Name: Liquid Hardener

Product identifier: 100602

Revision Date: 08-18-2016

Replaces:

EVERCOAT®

1. Identification

Product identifier used on the label:

Product Name: **Liquid Hardener**

Product identifier: 100602

Other means of identification

Synonyms: No data available

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

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: Skin Corrosion/Irritation Category 1B
Serious Eye Damage/ Eye Irritation Category 1
Hazardous to the aquatic environment - Acute Category 2
Acute Toxicity - Oral Category 4

GHS Signal Word: Danger

GHS Hazard Statements: Harmful if swallowed.
Causes severe skin burns and eye damage.
Toxic to aquatic life.

GHS Precautionary Statements:

Safety Precautions: Do not breathe dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.

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First Aid Measures: Do not eat, drink or smoke when using this product.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing.
Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/ doctor
Specific treatment (see on this label).
Rinse mouth.
Wash contaminated clothing before reuse.

Storage: Store locked up.

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

Hazards not otherwise classified: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

3. Composition/ information on ingredients

Chemical Component:	CAS number and other unique identifiers	% (or range) of ingredient
Methyl Ethyl Ketone Peroxide	1338-23-4	15 - 40
Hydrogen Peroxide	7722-84-1	0.1 - 1
methyl ethyl ketone 78-93-3	78-93-3	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. Flush eyes gently with water for at least 15 minutes, lifting upper & lower eye lids. Seek immediate medical attention. DO NOT let victim rub eyes.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

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Inhalation: Remove contaminated clothing and continue flushing with water. Wash affected area thoroughly with soap and water. Seek immediate medical attention. Wash clothing before reuse. 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. If symptoms develop, immediately move individual away from exposure and into fresh air. Get medical attention immediately. Keep the victim warm and quiet. If the victim has stopped breathing open airway, loosen collar and belt, and administer artificial respiration. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice.

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. Call a physician or poison control center immediately. Do not induce vomiting unless directed to do so by medical personnel. If individual is drowsy or unconscious, do not give anything by mouth; place individual on left side with head down. If possible, do not leave individual unattended.

Most important symptoms/ effects, acute and delayed:

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

Most important symptoms/ effects (Delayed): Product: Prolonged and /or repeated inhalation is expected to be severely irritating to the respiratory system.
Methyl Ethyl Ketone: Animal tests show that this substance possibly causes toxic effects upon human reproduction.

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

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media:

Suitable extinguishing media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water spray or fog may also be effective for extinguishing if swept across the base of the fire. Water can also be used to absorb heat and keep exposed material from being damaged by fire. Regular foam Carbon dioxide Dry chemical

Unsuitable extinguishing media: No data available

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

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Fire and/ or Explosion Hazards:	Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a Class B fire. Vapors are heavier than air and may travel to a source of ignition and flash back
Hazardous Combustion Products:	Carbon dioxide, Carbon monoxide, Water, Acetic acid, formic acid, propionic acid, methyl ethyl ketone, Hydrocarbons
Special protective equipment and precautions for fire-fighters:	Do not enter fire area without proper protection including self-contained toxic 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. Use water spray/fog for cooling. Water may be used to cool closed containers to prevent pressure build-up and possible auto ignition or explosion when exposed to extreme heat. Wear a self contained breathing apparatus (NIOSH approved) with a full face piece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment.

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:	Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section VIII at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Shut off ignition sources; including electrical equipment and flames. Do not allow smoking in the area. Activate available exhaust ventilation equipment in the immediate spill area. All personnel in the area should be protected as in Section 8. Avoid breathing vapors. Use an inert absorbent such as sand or vermiculite. Place in properly labeled closed container.

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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. All hazard precautions given in the data sheet must be observed. Do not get in eyes, on skin and clothing Wash hands before eating Use with adequate ventilation Avoid breathing vapors or mists. Do not take internally. Keep container closed when not in use. Keep out of the reach of children.

Conditions for safe storage, including any incompatibilities

Conditions for safe storage: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Store in a cool dry place For maximum product quality, avoid prolonged storage at temperatures above 80oF (27oC). To prevent possible self-accelerating decomposition, temperatures in the storage facility must not exceed 100oF (38oC). Keep away from heat, sparks, and flame Store in a tightly closed container Avoid contact with incompatible materials.

Materials to Avoid/ Chemical Incompatibility: Organic materials Inorganic acids Strong oxidizing agents Accelerators Reducing agents Strong alkalis

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
Methyl Ethyl Ketone Peroxide	No data available	0.2 ppm Ceiling	No data available
methyl ethyl ketone 78-93-3	200 ppm	200 ppm	No data available

Appropriate engineering controls: No exposure limits exist for the constituents of this product. Use local exhaust ventilation or other engineering controls to minimize exposures and maintain operator comfort. General or local ventilation or isolation may prove adequate to keep airborne exposures below exposure limits. Explosion proof exhaust ventilation should be used.

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. Splash proof chemical goggles are recommended to protect against the splash of product.

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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. Protective gloves and proper clothing should be worn to prevent skin contact. Gloves should be made of neoprene or natural rubber. To prevent repeated or prolonged skin contact, wear impervious clothing and boots
Respiratory Protection:	Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. Use a NIOSH approved respirator designed to remove particulate matter and organic solvent vapors.
Other Protective Equipment:	Splash proof chemical goggles are recommended to protect against the splash of product. Protective gloves and proper clothing should be worn to prevent skin contact. Gloves should be made of neoprene or natural rubber. To prevent repeated or prolonged skin contact, wear impervious clothing and boots

9. Physical and chemical properties

Appearance (physical state, color, etc.):

Appearance (physical state): Liquid

Color: Clear

Odor:

Odor threshold: No data available

pH: No data available

Melting Point/Freezing Point (°C): No data available

Initial Boiling Point and Boiling Range (°C): 284

Flash Point (°C): No data available

Evaporation Rate: No data available

Flammability (solid, gas): No data available

Upper/ lower flammability or explosive limits:

Upper Flammable/ Explosive Limit (%): No data available

Lower Flammable/ Explosive Limit (%): No data available

Vapor Pressure: No data available

Vapor Density: >1

Relative Density: Not determined

Solubility(ies): Low; 10-49%

Partition coefficient: n-octanol/ water: No data available

Auto-ignition Temperature (°C): No data available

Decomposition Temperature: No data available

Viscosity: No data available

VOC (as packaged-less exempts and water): 0.326 lb/gal or 39 g/L

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10. Stability and reactivity

Reactivity:	No data available
Chemical stability:	Stable under normal conditions.
Possibility of hazardous reactions:	No data available
Conditions to avoid (e.g., static discharge, shock, or vibration):	Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition. Visible light Contamination
Incompatible materials:	Organic materials Inorganic acids Strong oxidizing agents Accelerators Reducing agents Strong alkalies
Hazardous decomposition products:	Carbon dioxide Carbon monoxide Oxygen Ethane Methane Hydrocarbons

11. Toxicological information

Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact):	Ingestion, Skin contact, Eye contact, Absorption
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 moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache. Excessive inhalation of vapors may cause nasal and respiratory irritation, acute nervous system depression, fatigue, weakness, nausea, headache and dizziness. Airborne overexposure well above the PEL may result additionally in eye irritation, headache, chemical bronchitis, asthma-like findings or pulmonary edema.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Skin Absorption:	Causes redness, blistering, and edema. Contact may cause irritation and possible dermatitis or sensitization. Symptoms may include redness, burning, drying and cracking of skin, and skin burns
Eye Contact:	Contact with the eyes may cause moderate to severe eye injury. Eye contact may result in tearing and reddening, but not likely to permanently injure eye tissue. Temporary vision impairment (cloudy or blurred vision) is possible. Corrosive. Will cause eye burns and permanent tissue damage.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea,

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vomiting and diarrhea. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract. Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal.

Ingestion Toxicity:

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. Not listed by ACGIH, IARC, NIOSH, NTP 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: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.

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

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

Numerical measures of toxicity (such as acute toxicity estimates)

Component Toxicology Data

Chemical Component	Oral LD50	Dermal LD50	Inhalation LC50
Methyl Ethyl Ketone Peroxide	Oral LD50 Rat 484 mg/kg		Inhalation LC50 (4h) Rat 200 ppm
methyl ethyl ketone 78-93-3	Oral LD50 Rat 2737 mg/kg		Inhalation LC50 (8h) Rat 23500 mg/ m3

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): Toxic to 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

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Ecological Toxicity Data

Chemical Component	Aquatic EC50 Crustacea	Aquatic ERC50 Algae	Aquatic LC50 Fish
No data available			

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.

Safe Handling of Waste: This material as supplied, if discarded, would be regulated as a hazardous waste under RCRA (40 CFR 261).

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: UN3107

UN proper shipping name: ORGANIC PEROXIDE TYPE E, LIQUID (METHYL ETHYL KETONE PEROXIDE) 5.2

Transport hazard class(es): 5.2

Packing group: No data available

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: A component or components of this product are listed on the TSCA Inventory of Existing Chemical Substances.

Regulated Components

Chemical Component	CAS number and other unique identifiers	CERCLA	SARA EHS	SARA 313	California Prop 65
Methyl Ethyl Ketone Peroxide	1338-23-4	N	N	Y	N
methyl ethyl ketone	78-93-3	N	N	Y	N

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

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