

# Safety Data Sheet

Product Name: Liquid Hardener

Product identifier: 100603

Revision Date: 06-22-2015

Replaces:



## 1. Identification

**Product Name:** Liquid Hardener  
**Product identifier:** 100603  
**Relevant identified uses of the substance or mixture and uses advised against:** Polymerization initiator

**Chemical Manufacturer / Importer / Distributor:** ITW Evercoat  
a division of Illinois Tool Works Inc.  
6600 Cornell Road  
Cincinnati, OH 45242  
513-489-7600  
**Emergency telephone 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:** Flammable Liquid Category 1  
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:** Extremely flammable liquid and vapour.  
Harmful if swallowed.  
Causes severe skin burns and eye damage.  
Toxic to aquatic life..

**GHS Precautionary Statements:**  
**Safety Precautions:**

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.

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## First Aid Measures:

Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Wash thoroughly after handling.  
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.  
In case of fire: Use for extinction.  
Keep container tightly closed.  
Store in a well-ventilated place. Keep cool.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulation for hazardous wastes.  
Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

## Storage:

## Disposal:

## Hazards not otherwise classified:

### 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.

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## 4. First-aid measures

<b>Eye Contact:</b>	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.
<b>Skin Contact:</b>	Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists. Remove contaminated clothing and continue flushing with water. Wash affected area thoroughly with soap and water. Seek immediate medical attention. Wash clothing before reuse.
<b>Inhalation:</b>	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.
<b>Ingestion:</b>	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.
<b>Most important symptoms/effects (Delayed:</b>	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.
<b>Immediate medical attention and special treatment needed,:</b>	No additional first aid information available

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## 5. Fire-fighting measures

<b>Suitable extinguishing media:</b>	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
<b>Unsuitable extinguishing media:</b>	No data available
<b>Fire and/or Explosion Hazards:</b>	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
<b>Hazardous Combustion Products:</b>	Carbon dioxide, Carbon monoxide, Water, Acetic acid, formic acid, propionic acid, methyl ethyl ketone, Hydrocarbons
<b>Special protective equipment and precautions for fire-fighters:</b>	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

<b>Personal precautions, protective equipment and emergency procedures:</b>	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.
<b>Methods and material for containment and cleaning up:</b>	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.

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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.

## 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:** 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 alkalies

## 8. Exposure controls/personal protection

### Limits:

Chemical Component	OSHA PEL	ACGIH TLV-TWA	ACGIH STEL
Methyl Ethyl Ketone Peroxide	No PEL established	0.2 ppm Ceiling	
methyl ethyl ketone 78-93-3	200 ppm	200 ppm	

**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.

**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

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	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.
<b>Skin Protection:</b>	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
<b>Respiratory Protection:</b>	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.
<b>Other Protective Equipment:</b>	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
<b>General Hygiene Conditions:</b>	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.

## 9. Physical and chemical properties

<b>Appearance (physical state):</b>	Liquid
<b>Color:</b>	Clear
<b>Odor:</b>	
<b>Odor threshold:</b>	No data available
<b>pH:</b>	No data available
<b>Melting Point/Freezing Point (°C):</b>	No data available
<b>Initial Boiling Point and Boiling Range (°C):</b>	284
<b>Flash Point (°C):</b>	-6
<b>Evaporation Rate:</b>	No data available
<b>Flammability (solid, gas):</b>	No data available
<b>Upper Flammable/Explosive Limit:</b>	No data available
<b>Lower Flammable/Explosive Limit:</b>	No data available
<b>Vapor Pressure:</b>	No data available
<b>Vapor Density:</b>	>1
<b>Relative Density:</b>	Not determined

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<b>Solubility(ies):</b>	Low; 10-49%
<b>Partition coefficient: n-octanol/water:</b>	No data available
<b>Auto-ignition Temperature (°C):</b>	490 °C
<b>Decomposition Temperature::</b>	No data available
<b>Viscosity:</b>	No data available
<b>VOC (as packaged-less exempts and water)</b>	0.326 or 39

## 10. Stability and reactivity

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

## 11. Toxicological information

<b>Likely routes of exposure (inhalation, ingestion, skin and eye contact):</b>	Ingestion, Skin contact, Eye contact, Absorption
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### Immediate (Acute) Health Effects by Route of Exposure:

<b>Inhalation Irritation:</b>	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.
<b>Skin Contact:</b>	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
<b>Skin Absorption:</b>	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
<b>Eye Contact:</b>	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.
<b>Ingestion Irritation:</b>	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, 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.

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**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.

## Component Toxicology Data

Chemical Component	Oral LD50	Dermal LD50	Inhalation LC50
No data available			

Has the chemical been classified as a Carcinogen by NTP, IARC or OSHA.

Chemical Name	OSHA Carcinogen	IARC Carcinogen	NTP Carcinogen
No data available			

## 12. Ecological information

**Ecotoxicity (aquatic and terrestrial, where available):** This material is not expected to be harmful to the ecology.

**Persistence and degradability:** No data available

**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
No data available			

## 13. Disposal considerations

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

**Safe Handling of Waste:** This material as supplied, if discarded, would be not be regulated as a hazardous waste under RCRA (40 CFR 261).

**Waste treatment methods** Dispose of by incineration following Federal, State, Local, or



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(including packaging): Provincial regulations.  
Waste Disposal Code(s): D001

## 14. Transport information

**UN proper shipping name:** The DOT Classification for shipping is dependent on quantity, type of packaging (a kit may include other components), or method of shipment.

## 15. Regulatory information

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