

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product identifier**

**Product name** HARD 2 Reagent

**Other means of identification**

**Product Code(s)** P-7030

**Recommended use of the chemical and restrictions on use**

**Recommended Use** Laboratory chemicals. Industrial (not for food or food contact use). Use as a laboratory reagent.

**Details of the supplier of the safety data sheet**

**Manufacturer Address**  
 LaMotte Company, Inc.  
 802 Washington Avenue  
 P.O. Box 329  
 Chestertown, MD 21620 USA  
 T 410-778-3100  
 F 410-778-9748

**Emergency telephone number**

24 Hour Emergency Number (CHEM-TEL): USA, Canada, Puerto Rico 1-800-255-3924 Outside North American Continent (Call collect) 813-248-0585

## 2. HAZARDS IDENTIFICATION

Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 1A
Specific target organ toxicity (single exposure)	Category 3
Flammable Liquids	Category 3

### EMERGENCY OVERVIEW

**DANGER**

**Hazard statements**

Causes serious eye irritation. May cause cancer. May cause drowsiness or dizziness.  
 FLAMMABLE LIQUID AND VAPOR.



**Appearance** dark blue

**Physical state** viscous liquid

**Odor** Rubbing alcohol

**Precautionary Statements - Prevention**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands and any exposed skin thoroughly after handling. Wear eye/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area.

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water

Take off contaminated clothing and wash before reuse

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

IF SWALLOWED, Drink 1 or 2 glasses of water, Call a physician immediately

#### Precautionary Statements - Storage

Store locked up. Store in a well-ventilated place. Keep container tightly closed.

#### Precautionary Statements - Disposal

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

#### Other Hazards

May be harmful if swallowed

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical Family** Alkanolamines.

Chemical name	CAS No	Weight-%
Isopropyl alcohol	67-63-0	30
Triethanolamine	102-71-6	70

### 4. FIRST AID MEASURES

#### First Aid Measures

##### General advice

Do not get in eyes, on skin, or on clothing. Remove contaminated clothing and shoes. Immediate medical attention is required.

##### Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek immediate medical attention/advice.

##### Skin contact

Remove material from skin immediately. Wash off immediately with soap and plenty of water for at least 15 minutes. Take off contaminated clothing and wash before reuse. Seek immediate medical attention/advice.

##### Inhalation

Remove to fresh air. If symptoms persist, call a physician.

##### Ingestion

Do NOT induce vomiting. Drink plenty of water. Clean mouth with water. Call a physician immediately. Never give anything by mouth to an unconscious person.

##### Self-protection of the first aider

Use personal protection recommended in Section 8. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

##### Notes to Physician

For additional information, see Safety Data Sheet.

### 5. FIRE-FIGHTING MEASURES

#### Suitable extinguishing media

Dry chemical. Alcohol-resistant foam. Carbon dioxide (CO<sub>2</sub>). Cool containers with flooding quantities of water until well after fire is out. Do not use a solid water stream as it may scatter and spread fire.

#### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full

protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Ensure adequate ventilation. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists.
<b>Other Information</b>	Ventilate the area.
<b>Environmental precautions</b>	See Section 12 for additional Ecological Information.

### Methods and material for containment and cleaning up

<b>Methods for containment</b>	Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13). Do not flush to sewer.
<b>Methods for cleaning up</b>	Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product and washings from entering drains, sewers or surface water due to high toxicity to aquatic organisms.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

<b>Handling</b>	Handle in accordance with good industrial hygiene and safety practice. Do not taste or swallow. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.
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### Conditions for safe storage, including any incompatibilities

<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store above 43 °C (110 °F). May separate and freeze below 16 °C (60 °F), thaw and mix before use. Avoid contact with copper or copper alloy. Store away from incompatible materials. Keep out of the reach of children.
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<b>Incompatible Products</b>	copper. Copper alloys. Galvanized iron. Acids. Bases.
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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Isopropyl alcohol 67-63-0	400 ppm STEL TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m <sup>3</sup>	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m <sup>3</sup> STEL: 500 ppm STEL: 1225 mg/m <sup>3</sup>
Triethanolamine 102-71-6	TWA: 5 mg/m <sup>3</sup>	-	Not Established

### Appropriate engineering controls

<b>Engineering Measures</b>	Showers Eyewash stations Ventilation systems.
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### Individual protection measures, such as personal protective equipment

<b>Eye/Face Protection</b>	Wear safety glasses with side shields (or goggles). Avoid contact with eyes.
<b>Skin and body protection</b>	Wear protective gloves/clothing.
<b>Respiratory protection</b>	Maintain adequate ventilation. If exposure limits are exceeded or irritation is experienced,

NIOSH/MSHA approved respiratory protection should be worn.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin and clothing. Wear suitable gloves and eye/face protection. Wash hands and face before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical state</b>	viscous liquid	<b>Odor</b>	Rubbing alcohol
<b>Appearance</b>	dark blue		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
<b>pH</b>	11	No information available	
<b>Melting point / freezing point</b>	No information available	For Triethanolamine	
<b>Boiling point / boiling range</b>	335 °C / 635 °F	Open cup for Triethanolamine	
<b>Flash point</b>	179 °C / 354 °F		
<b>Evaporation rate</b>			
<b>Flammability (solid, gas)</b>	No information available		
<b>Flammability Limit in Air</b>			
<b>Upper flammability limit:</b>	1.3%		
<b>Lower flammability limit:</b>	8.5%		
<b>Vapor pressure</b>	No information available	<17 mmHg @ 20°C	
<b>Vapor density</b>	5.1	.? (air = 1)	
<b>Specific gravity</b>	No information available		
<b>Water solubility</b>	Infinite		
<b>Solubility in other solvents</b>	No information available		
<b>Partition coefficient</b>	No information available		
<b>Autoignition temperature</b>	No information available		
<b>Decomposition temperature</b>	No information available		
<b>Kinematic viscosity</b>	No information available		
<b>Dynamic viscosity</b>	No information available		
<b>Explosive properties</b>	No information available		
<b>Oxidizing properties</b>	No information available		

**Other Information**

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	No information available

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under recommended storage conditions.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Heat, flames and sparks. Moisture. Incompatible Products.
<b>Incompatible materials</b>	copper. Copper alloys. Galvanized iron. Acids. Bases.
<b>Hazardous decomposition products</b>	Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ). Nitrogen oxides (NO <sub>x</sub> ).

## 11. TOXICOLOGICAL INFORMATION

<b>Product Information</b>	Harmful if swallowed
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**Information on likely routes of exposure****Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Isopropyl alcohol 67-63-0	= 1870 mg/kg ( Rat )	= 4059 mg/kg ( Rabbit )	= 72600 mg/m <sup>3</sup> ( Rat ) 4 h
Triethanolamine 102-71-6	= 4190 mg/kg ( Rat )	> 16 mL/kg ( Rat ) > 20 mL/kg ( Rabbit )	Not Established

**Information on toxicological effects****Sensitization**

No information available

**Carcinogenicity**

Triethanolamine is classified by IARC as Group 3 - not classifiable as to its carcinogenicity to humans.

Chemical name	ACGIH	IARC	NTP	OSHA
Isopropyl alcohol 67-63-0	-	Group 3	Not Established	X
Triethanolamine 102-71-6	-	Group 3	Not Established	-

**Target organ effects**

kidney, liver, Eyes.

**ATEmix (oral)**

3060

**ATEmix (dermal)**

8876 mg/kg

Dermal LD50 No information available

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity****Unknown Aquatic Toxicity** 0.3 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical name	Toxicity to Algae	Toxicity to Fish	Daphnia Magna (Water Flea)
Isopropyl alcohol 67-63-0	1000: 72 h Desmodesmus subspicatus mg/L EC50 1000: 96 h Desmodesmus subspicatus mg/L EC50	11130: 96 h Pimephales promelas mg/L LC50 static 9640: 96 h Pimephales promelas mg/L LC50 flow-through 1400000: 96 h Lepomis macrochirus µg/L LC50	13299: 48 h Daphnia magna mg/L EC50
Triethanolamine 102-71-6	169: 96 h Desmodesmus subspicatus mg/L EC50 216: 72 h Desmodesmus subspicatus mg/L EC50	10600 - 13000: 96 h Pimephales promelas mg/L LC50 flow-through 450 - 1000: 96 h Lepomis macrochirus mg/L LC50 static 1000: 96 h Pimephales promelas mg/L LC50 static	1386: 24 h Daphnia magna mg/L EC50

**Persistence and degradability**

If released to water or soil Triethanolamine is expected to readily biodegrade.

**Bioaccumulation/Accumulation**

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). When released into the soil, this material may leach into ground water. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to be readily removed from the atmosphere by wet or dry deposition. When released into water, air, or soil, this material is expected to have a half life of 1-10 days.

Chemical name	Log Pow
Isopropyl alcohol 67-63-0	0.05
Triethanolamine 102-71-6	-2.53

## 13. DISPOSAL CONSIDERATIONS

**Disposal Methods**

Dispose of waste product or used containers according to local regulations. Should not be released into the environment.

**Contaminated packaging**

Dispose of waste product or used containers according to local regulations.

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Isopropyl alcohol	Not Established	-	Not Established	Not Established

67-63-0				
Triethanolamine 102-71-6	Not Established	-	Not Established	Not Established

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Isopropyl alcohol 67-63-0	Not Established	Not Established	Not Established	Not Established
Triethanolamine 102-71-6	Not Established	Not Established	Not Established	Not Established

Chemical name	California Hazardous Waste Status
Isopropyl alcohol 67-63-0	-
Triethanolamine 102-71-6	-

**14. TRANSPORT INFORMATION**

**DOT** Not regulated

**IATA** Not regulated

**IMDG/IMO** Not regulated

**15. REGULATORY INFORMATION**

**International Inventories**

- TSCA Complies
- DSL/NDSL Complies
- EINECS/ELINCS Complies
- ENCS Complies
- IECSC Complies
- KECL Complies
- PICCS Complies
- AICS Complies

**Legend:**

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS - Japan Existing and New Chemical Substances
- IECSC - China Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances
- AICS - Australian Inventory of Chemical Substances

**US Federal Regulations**

**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

Chemical name	SARA 313 - Threshold Values %
Isopropyl alcohol 67-63-0	1.0
Triethanolamine 102-71-6	Not Established

**SARA 311/312 Hazard Categories**

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Isopropyl alcohol 67-63-0	Not Established	Not Established	Not Established	Not Established
Triethanolamine 102-71-6	Not Established	Not Established	Not Established	Not Established

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	RQ
Isopropyl alcohol 67-63-0	-	Not Established	-
Triethanolamine 102-71-6	-	Not Established	-

**US State Regulations**

**California Proposition 65**

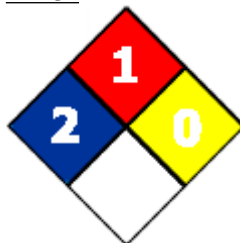
This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Isopropyl alcohol 67-63-0	X	X	X
Triethanolamine 102-71-6	X	X	X

**16. OTHER INFORMATION**

<b>NFPA</b>	Health hazard 2	Flammability 1	Instability 0	Physical and Chemical Hazards N/A
<b>HMIS</b>	Health hazard 0	Flammability 0	Stability 0	



Health Hazard	<b>3</b>
Fire Hazard	<b>1</b>
Reactivity	<b>1</b>

Prepared by	Regulatory Affairs Department
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**Disclaimer**

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

**End of Material Safety Data Sheet**