



Issuing Date Apr-20-2015

Revision Date May-09-2017

Safety Data Sheet

OSHA format

Revision Number 0

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

UN-No 1219

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 numbers

(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
Physical hazards 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 liquid**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.

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.

Storage:

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

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.
<u>Self-protection of the first aider</u>	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. FIREFIGHTING MEASURES

Suitable extinguishing media

Dry chemical. Alcohol-resistant foam. Carbon dioxide (CO₂). 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

Personal precautions	Ensure adequate ventilation. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists.
Other Information	Ventilate the area.
Environmental precautions	See Section 12 for additional Ecological Information. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Methods and material for containment and cleaning up

Methods for containment	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.
Methods for cleaning up	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

Handling	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

Storage: 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.

Incompatible Products copper. Copper alloys. Galvanized iron. Acids. Bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

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

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear safety glasses with side shields (or goggles). Avoid contact with eyes.

Skin and body protection Wear protective gloves/clothing.

Respiratory protection 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

Physical state viscous liquid
Appearance dark blue liquid
Color dark blue

Odor Rubbing alcohol

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	11	
Melting point / freezing point	No information available	
Boiling point / boiling range	82 °C / 635 °F	for Isopropanol
Flash point	Not Applicable 24 °C / 354 °F	for 30% Isopropyl alcohol
Evaporation rate		
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	12 %	
Lower flammability limit:	2 %	
Vapor pressure	No information available	(Isopropanol)
Vapor density	2.1	(air=1) (Isopropanol)
Specific gravity	No information available	
Water solubility	Infinite	

Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	399 °C	for Isopropanol
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

Product Information	Harmful if swallowed
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Information on likely routes of exposure**Component identification**

Chemical name	ATEmix (oral)	ATEmix (dermal)	Inhalation LC50
Isopropyl alcohol 67-63-0	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m ³ (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

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	Not Established	Group 3	Not Established	X
Triethanolamine 102-71-6	Not Established	Group 3	Not Established	Not Established

Target organ effects kidney, liver, Eyes.

ATEmix (oral)	3,060.00 mg/kg
ATEmix (dermal)	8,876.00 mg/kg

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	11130: 96 h Pimephales promelas mg/L LC50 static 9640: 96 h Pimephales promelas mg/L	13299: 48 h Daphnia magna mg/L EC50

	mg/L EC50	LC50 flow-through 1400000: 96 h Lepomis macrochirus µg/L LC50	
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

No information available.

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 67-63-0	Not Established	-	Not Established	Not Established
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	Toxic Ignitable
Triethanolamine 102-71-6	*-

14. TRANSPORT INFORMATION**DOT**

UN-No	1219
Proper shipping name	ISOPROPANOL
Hazard Class	3
Packing group	II

IATA

UN-No	1219
Proper shipping name	ISOPROPANOL
Hazard Class	3
Packing group	II

IMDG/IMO

UN-No	1219
Proper shipping name	ISOPROPANOL
Hazard Class	3
Packing group	II

ADR

UN-No	1219
Proper shipping name	ISOPROPANOL
Hazard Class	3
Packing group	II

15. REGULATORY INFORMATION**International Inventories**

TSCA	Complies
DSL/NDL	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/NDL - 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

Chemical name	California Proposition 65
Isopropyl alcohol 67-63-0	Not Established
Triethanolamine 102-71-6	Not Established

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

CPSC (Consumer Product Safety Commission) - Specially Regulated Substances**16. OTHER INFORMATION****NFPA**

Health hazard 2

Flammability 1

Instability 0

Physical and Chemical
Hazards N/A

Health Hazard	3
Fire Hazard	1
Reactivity	1

Prepared by**Issuing Date****Revision Date****Reason for revision****Disclaimer**

Regulatory Affairs Department

Apr-20-2015

May-09-2017

SDS sections updated 14

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 Safety Data Sheet