

Issuing Date 3/18/2013

Revision Number 0

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Name** IODINE REAGENT #2

**Product Code(s)** 7255

**Recommended Use** Test kit reagent. Laboratory chemicals. Industrial (not for food or food contact use).

**Company** LaMotte Company, Inc.  
802 Washington Avenue  
P.O. Box 329  
Chestertown, MD 21620  
USA

**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****DANGER!****Emergency Overview**

Causes serious eye damage

Irritating to skin

May be harmful if swallowed

**Appearance** Colorless**Physical State** Liquid**Odor** Slight, Acid

**OSHA Regulatory Status** Safety information is given for exposure to the reagent as sold and considers exposure to the chemical if user has direct eye and skin contact.

**Potential Health Effects**

**Principle Routes of Exposure** Inhalation, skin contact, and ingestion.

**Acute Toxicity****Eyes**

Causes serious eye damage.

**Skin**

Harmful if absorbed through skin. Contact can cause severe skin irritation. Symptoms can include redness, itching, and pain.

**Inhalation**

May cause irritation of respiratory tract.

**Ingestion**

May be harmful if swallowed.

**Chronic Effects** None known.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Formula** Lactic acid and water

Chemical Name	CAS-No	Weight %
Lactic acid	50-21-5	43
Water	7732-18-5	to 100%

**4. FIRST AID MEASURES**

<b>General Advice</b>	Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Show this safety data sheet to the doctor in attendance. Consult a physician.
<b>Eye Contact</b>	Immediately flush eyes with gentle stream of water for at least 15 minutes, occasionally lifting upper and lower eyelids. Call a physician immediately.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes. Consult a physician.
<b>Inhalation</b>	Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. DO NOT INDUCE VOMITING. Clean mouth with water. Drink large quantity of water. Call a physician immediately.
<b>Protection of First-aiders</b>	Use personal protective equipment. See Section 8 for more detail. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

**5. FIRE-FIGHTING MEASURES**

<b>Flammable Properties</b>	Flammable/combustible material. Combustible material: may burn but does not ignite readily.
<b>Flash Point</b>	113 °C (235 °F) CC for 85% Lactic acid
<b>Suitable Extinguishing Media</b>	Dry chemical, CO <sub>2</sub> , water spray or alcohol-resistant foam.
<b>Hazardous Combustion Products</b>	Contact with metals may evolve flammable hydrogen gas.

<b>NFPA</b>	<b>Health Hazard</b> 2	<b>Flammability</b> 1	<b>Stability</b> 0	<b>Physical and Chemical Hazards</b> -
<b>HMIS</b>	<b>Health Hazard</b> 2	<b>Flammability</b> 1	<b>Stability</b> 0	

**6. ACCIDENTAL RELEASE MEASURES**

<b>Personal Precautions</b>	Ensure adequate ventilation. Use personal protective equipment. Refer to Section 8. Avoid contact with skin, eyes, and inhalation of vapors.
<b>Methods for Containment</b>	Absorb/Cover spill with sodium bicarbonate or sodium carbonate to neutralize, then place in a chemical waste container for later disposal.
<b>Methods for Cleaning Up</b>	Neutralize spill with alkaline material (sodium bicarbonate), being careful to prevent splattering, then containerize slurry and hold for later disposal. If local regulations permit, dilute slurry with water and rinse to drain with excess water. After cleaning, flush away traces with water.

**7. HANDLING AND STORAGE**

<b>Handling</b>	Handle in accordance with good industrial hygiene and safety practice. Prevent contact with skin, eyes, and clothing. Do not ingest. Do not eat, drink, or smoke when using this product.
<b>Storage</b>	Keep containers tightly closed in a dry, cool, and well-ventilated place. Keep away from oxidizing agents. Keep away from heat and incompatibles. Avoid all contact with metals. Keep out of the reach of children.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Lactic acid 50-21-5	None Known	None Known	None Known
Water 7732-18-5	None Known	None Known	None Known

**Engineering Measures** Showers  
Eyewash stations  
Ventilation systems.

### Personal Protective Equipment

**Eye/Face Protection**

Safety glasses with side-shields.

**Skin and Body Protection**

Wear protective gloves/clothing. Neoprene gloves. Rubber gloves.

**Respiratory Protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Colorless	<b>Odor</b>	Slight, Acrid
<b>Physical State</b>	Liquid	<b>pH</b>	< 2
<b>Flash Point</b>	113 °C (235 °F) CC for 85% Lactic acid	<b>Autoignition Temperature</b>	Not applicable
<b>Boiling Point/Range</b>	122°C (252°F) @ 15 mmHg for 85% Lactic acid	<b>Flammability Limits in Air</b>	Not applicable
<b>Vapor Pressure</b>	No information available	<b>Vapor Density</b>	No information available

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under normal conditions of use and storage.
<b>Incompatible Products</b>	Strong oxidizing agents. Hydrofluoric acid. Nitric acid. Iodides. Contact with metals (aluminum, iron, steel) may release hydrogen gas.
<b>Conditions to Avoid</b>	Excessive heat. Incompatible products.
<b>Hazardous Decomposition Products</b>	May produce the following when heated to decomposition: Carbon oxides (COx).
<b>Hazardous Reactions</b>	Thermal decomposition may form CO/CO <sub>2</sub> . May react with metals to produce flammable hydrogen gas.
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Lactic acid	3543 mg/kg ( Rat )	2 g/kg ( Rabbit )	None Known
Water	90 mL/kg ( Rat )	None Known	None Known

**Chronic Toxicity**

**Chronic Toxicity** None known.

**Carcinogenicity** Contains no ingredient listed as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Lactic acid	None Known	None Known	None Known	None Known
Water	None Known	None Known	None Known	None Known

Chemical Name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
Lactic acid	None Known	None Known	None Known
Water	None Known	None Known	None Known

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Lactic acid	None Known	None Known	None Known	None Known
Water	None Known	None Known	None Known	None Known

**Persistence and Degradability** Based on components, product is expected to be readily biodegradable.

Chemical Name	Log Pow
Lactic acid	None Known
Water	None Known

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method** Dispose according to federal, state, and local regulations. If permitted, neutralize reagent with sodium bicarbonate/sodium carbonate, add slurry to large volume of water to dilute, rinse to drain with excess water.

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Lactic acid - 50-21-5	None Known	None Known	None Known	None Known
Water - 7732-18-5	None Known	None Known	None Known	None Known

## 14. TRANSPORT INFORMATION

**DOT**

**Proper Shipping Name** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (43% Lactic Acid)  
**Hazard Class** 8  
**UN-No** 3265  
**Packing Group** III

**IATA**

**UN-No** 3265  
**Proper Shipping Name** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (43% Lactic Acid)  
**Hazard Class** 8  
**Packing Group** III

**IMDG/IMO**

<b>Proper Shipping Name</b>	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (43% Lactic Acid)
<b>Hazard Class</b>	8
<b>UN-No</b>	3265
<b>Packing Group</b>	III

**15. REGULATORY INFORMATION****International Inventories**

Component	TSCA	DSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Lactic acid 50-21-5 ( 43 )	Present	X	X	2-1369	X	KE-21802	X	X
Water 7732-18-5 ( to 100% )	Present	X	X	ENCS	X	KE-35400	X	X

**U.S. 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	CAS-No	Weight %	SARA 313 - Threshold Values %
Lactic acid	50-21-5	43	None Known
Water	7732-18-5	to 100%	None Known

**SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**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).

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Lactic acid 50-21-5 ( 43 )	None Known	None Known	None Known	None Known
Water 7732-18-5 ( to 100% )	None Known	None Known	None Known	None Known

Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Lactic acid	50-21-5	43	None Known	None Known	None Known	None Known
Water	7732-18-5	to 100%	None Known	None Known	None Known	None Known

**CERCLA**

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Lactic acid	None Known	None Known
Water	None Known	None Known

**U.S. State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals

Chemical Name	CAS-No	California Prop. 65
Lactic acid	50-21-5	None Known

Water	7732-18-5	None Known
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Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Lactic acid	None Known	X	None Known	None Known	None Known
Water	None Known	None Known	None Known	None Known	None Known

**International Regulations**

**Mexico - Grade**

Chemical Name	Carcinogen Status	Exposure Limits
Lactic acid	None Known	None Known
Water	None Known	None Known

**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

Component	WHMIS Hazard Class
Lactic acid 50-21-5 ( 43 )	1 %
Water 7732-18-5 ( to 100% )	Uncontrolled product according to WHMIS classification criteria



**16. OTHER INFORMATION**

NFPA	HMIS	PPE	Transport Symbol						
	<table border="1"> <tr> <td>Health Hazard</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Fire Hazard</td> <td style="text-align: center;">1</td> </tr> <tr> <td>Reactivity</td> <td style="text-align: center;">0</td> </tr> </table>	Health Hazard	2	Fire Hazard	1	Reactivity	0		
Health Hazard	2								
Fire Hazard	1								
Reactivity	0								

Prepared By Regulatory Affairs Department  
 Issuing Date 3/18/2013  
 Revision Date -  
 Revision Note Update to Format.  
 Disclaimer

The information provided on this MSDS 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 MSDS**