



Material Safety Data Sheet

Starch Indicator Solution

Issuing Date 12/27/2010

Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Starch Indicator Solution  
Product Code(s): 4170

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  
Chesertown, MD 21620  
USA

Emergency Telephone Number

24 Hour Emergency Number (CHEM-TEL):  
USA, Canada, Puerto Rico 1-800-256-3924  
Outside North American Continent (Call collect) 813-248-0585

2. HAZARD IDENTIFICATION

Emergency Overview

Avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes, and clothing.  
May be harmful if swallowed  
May cause eye irritation  
Physical State: Liquid  
Odor: None

OSHA Regulatory Status

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

Potential Health Effects  
Principal Routes of Exposure

Skin and eye contact

Acute Toxicity

Eyes: Contact with eyes may cause irritation.  
Skin: No hazard from product as supplied.  
Inhalation: Not an expected route of exposure.  
Ingestion: May cause gastrointestinal discomfort if consumed in large amounts.

Chronic Effects

Prolonged skin contact may cause skin irritation and/or dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %
Soluble Starch (Amylopectin)	9005-84-9	0.5
Sulfuric acid	7827-2-7	0.13
Water	7732-18-5	to 100%

4. FIRST AID MEASURES

#4170

**General Advice** Do not get in eyes, on skin, or on clothing.

**Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If irritation persists or develops, contact a physician.

**Skin Contact** Wash off with warm water and soap. If skin irritation persists, call a physician.

**Inhalation** Not expected.

**Ingestion** Drink plenty of water. Do not induce vomiting without medical advice (pH 3). Consult a physician. Never give anything by mouth to an unconscious person.

**Protection of First-aiders** 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**

**Flammable Properties** Not a fire hazard.

**Flash Point** Not applicable

**Suitable Extinguishing Media** Dry chemical, CO<sub>2</sub>, alcohol-resistant foam or water spray.

**Explosion Data** Health Hazard 0 Flammability 0 Stability 0 Physical and Chemical Hazards -

**6. ACCIDENTAL RELEASE MEASURES**

**Personal Precautions** Use personal protective equipment. Refer to Section 8. Avoid contact with skin, eyes, and clothing.

**Methods for Cleaning Up** Neutralize spill with alkaline material (sodium bicarbonate), being careful to prevent splashing, then containerize slurry and hold for later disposal. If local regulations permit, dilute slurry with water and flush to drain with excess water. Keep in suitable and closed containers for disposal. After cleaning, flush away traces with water.

**7. HANDLING AND STORAGE**

**Handling** 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. Keep containers tightly closed in a dry, cool, and well-ventilated place. Store at room temperature. Keep away from direct sunlight. Keep away from heat and incompatibles. Keep out of the reach of children.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Soluble Starch (Amylopectin)	None known	None known	None known
Sulfuric acid	None known	None known	None known
Water	None known	None known	None known

**Personal Protective Equipment**

**Eye/Face Protection** Safety glasses with side-shields.

**Skin and Body Protection** Wear protective gloves/clothing.

**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**

Appearance	Colorless	Odor	None
Physical State	Liquid <td>pH <td>3</td> </td>	pH <td>3</td>	3
Flash Point	Not applicable	Boiling Point/Range	ca. 100 °C / 212 °F

**Vapor Pressure** <17 mmHg @ 20°C.

**Vapor Density**

<1(Air = 1)

**10. STABILITY AND REACTIVITY**

**Stability** Stable under normal conditions of use and storage.

**Incompatible Products** Strong oxidizing agents, iron salts.

**Conditions to Avoid** Excessive heat. Incompatible products. Direct sunlight.

**Hazardous Decomposition Products** Carbon monoxide (CO)

**Hazardous Polymerization** Hazardous polymerization does not occur.

**11. TOXICOLOGICAL INFORMATION**

**Acute Toxicity**

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Soluble Starch (Amylopectin)	None known	None known	None known
Sulfuric acid	851 mg/kg (Rat)	2000 mg/kg (Rabbit)	0.9 mg/L (Rat) 1 h
Water	50 mL/kg (Rat)	None known	None known

**Chronic Toxicity**

**Chronic Toxicity** Prolonged skin contact may cause skin irritation and/or dermatitis.

Chemical Name	ACGIH	IARC	NTP	OSHA
Soluble Starch (Amylopectin)	None known	None known	None known	None known
Sulfuric 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 - Explained Substances	Japan - Endocrine Disruptor Information
Soluble Starch (Amylopectin)	None known	None known	None known
Sulfuric acid	None known	None known	None known
Water	None known	None known	None known

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**12. Ecotoxicity**

Chemical Name	Toxicity to	Water
Soluble Starch (Amylopectin)	None Known	
Soluble Starch (Amylose)	None Known	
Salicylic acid	None Known	
Water	None Known	

**13. DISPOSAL CONSIDERATIONS**

Dispose according to federal, state, and local regulations. If permitted, neutralize reagent with sodium bicarbonate/sodium carbonate, acid slurry to large volumes of water to dilute, rinse to drain with excess water.

Chemical Name	RCRA - Hazardous Organic Compounds	RCRA - P-Series Wastes	RCRA - F-Series Wastes	RCRA - K-Series Wastes
Soluble Starch (Amylopectin) - 9005-84-9	None Known	None Known	None Known	None Known
Salicylic acid - 89-72-7	None Known	None Known	None Known	None Known
Water - 7732-18-5	None Known	None Known	None Known	None Known

Chemical Name	RCRA - Hazardous Organic Compounds	RCRA - P-Series Wastes	RCRA - F-Series Wastes	RCRA - K-Series Wastes
Soluble Starch (Amylopectin) - 9005-84-9	None Known	None Known	None Known	None Known
Salicylic acid - 89-72-7	None Known	None Known	None Known	None Known
Water - 7732-18-5	None Known	None Known	None Known	None Known

**14. TRANSPORT INFORMATION**

DOT: Not regulated  
 IATA: Not regulated  
 IMDG/IMO: Not regulated

**15. REGULATORY INFORMATION**

Component	TSCA	DSL	EMERGENCY CS	ENCS	IECSG	KECL	PICCS	AICS
Soluble Starch (Amylopectin) 9005-84-9 (0.5)	XU	X	X	ENCS	X	KE-01773	X	X
Salicylic acid 89-72-7 (0.13)	Present	X	X	3-1840	X	KE-20387	X	X
Water 7732-18-5 (to 100%)	Present	X	X	ENCS	X	KE-36400	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 %
Soluble Starch (Amylopectin)	9005-84-9	0.5	None Known
Salicylic acid	89-72-7	0.13	None Known
Water	7732-18-5	to 100%	None Known

**SARA 311/312 Hazard Categories**  
 Acute Health Hazard: No  
 Chronic Health Hazard: No  
 Fire Hazard: No  
 Sudden Release of Pressure Hazard: No  
 Reactive Hazard: 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
Soluble Starch (Amylopectin) 9005-84-9 (0.5)	None Known	None Known	None Known	None Known
Salicylic acid 89-72-7 (0.13)	None Known	None Known	None Known	None Known
Water 7732-18-5 (to 100%)	None Known	None Known	None Known	None Known

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

Chemical Name	CAS No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depleters	Class 2 Ozone Depleters
Soluble Starch (Amylopectin) 9005-84-9	9005-84-9	0.5	None Known	None Known	None Known	None Known
Salicylic acid 89-72-7	89-72-7	0.13	None Known	Group III	None Known	None Known
Water 7732-18-5	7732-18-5	to 100%	None Known	None Known	None Known	None Known

**GERCLA**

Chemical Name	Hazardous Substances RGs	Extremely Hazardous Substances RGs
Soluble Starch (Amylopectin)	None Known	None Known
Salicylic 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
Soluble Starch (Amylopectin)	9005-84-9	None Known
Salicylic acid	89-72-7	None Known
Water	7732-18-5	None Known

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Soluble Starch (Amylopectin)					
Salicylic acid					
Water					

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Soluble Starch (Amylopectin)	None Known	None Known	None Known	None Known	None Known
Soluble Starch (Amylose)	None Known	None Known	None Known	None Known	None Known
Soluble Starch (Wheat)	None Known	None Known	None Known	None Known	None Known

**International Regulations**

**Mexico - Grade**

Chemical Name	Cardiogram Status	Exposure Limits
Soluble Starch (Amylopectin)	None Known	None Known
Soluble Starch (Amylose)	None Known	None Known
Soluble Starch (Wheat)	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.

WHMIS Hazard Class  
Non-controlled

**16. OTHER INFORMATION**

<b>NFPA</b>	<b>HMS</b>	<b>PPE</b>	<b>Transport Symbol</b>
			Not regulated

Prepared By Regulatory Affairs Department

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Revision Date

Revision Note Initial Release.

**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