Material Safety Data Sheet

Issuing Date 12/16/2010 **Revision Date** 2/25/2013 **Revision Number** 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name **ALK. POTASSIUM IODIDE AZIDE**

Product Code(s) 7166

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

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! POISON!

Emergency Overview

Corrosive
Liquid and mist can cause severe burns to all body tissue
May be fatal if inhaled or swallowed
Water reactive

Appearance Clear, colorless **Physical State** Liquid **Odor** Odorless

OSHA Regulatory Status This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). 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 Corrosive to the eyes and may cause severe damage including blindness.

Skin Corrosive. Contact with skin causes irritation to severe burns. Can cause redness, pain, and severe skin burns. Harmful if absorbed through skin.

Inhalation Poison - may be fatal if inhaled. Inhalation of corrosive mist may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Depending on exposure, the effects from inhalation of corrosive mists can vary from mild irritation to serious damage to respiratory tract.

Ingestion Toxic if swallowed. Corrosive. Can cause immediate pain and burning in the mouth, throat, esphogus and GI tract. May cause nausea, vomiting, and diarrhea, and in severe cases death. Probable lethal dose of Potassium thiocyanate:between 15-30 grams.(100ml of 5116 solution will contain 10grams Potassium thiocyanate).

Chronic Effects Prolonged exposure may cause chronic effects.

Main Symptoms Prolonged contact has a destructive effect on tissue.

Aggravated Medical Conditions Hypersensitivity may occur in those with preexisting skin disorders. Respiratory disorders. Preexisting eye disorders.

3. COMPOSITION/INFORMATION ON INGREDIENTS

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Chemical Name	CAS-No	Weight %
Sodium azide	26628-22-8	1.05
Potassium iodide	7681-11-0	15
Water	7732-18-5	to 100%
Potassium hydroxide	1310-58-3	70

4. FIRST AID MEASURES

General Advice Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Do not delay care and transport of a seriously injured person.

Eye Contact Immediately flush eyes with gentle stream of water for at least 15 minutes, occasionally lifting upper and lower eyelids. Call a physician immediately.

Skin Contact Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes. Remove and wash contaminated clothing before re-use. Immediate medical attention is required.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and contact emergency personnel. Call a physician immediately.

Ingestion DO NOT INDUCE VOMITING. Drink large quantity of water. Immediate medical attention is required. 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 flammable.

Flash Point Not applicable

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific Hazards Arising from the Chemical
Contact with most metals causes the formation of explosive and flammable hydrogen gas. React vigorously with water.

NFPA	**Health Hazard** 3	**Flammability** 0	**Stability** 1	**Physical and Chemical Hazards** W
HMIS	**Health Hazard** 0	**Flammability** 0	**Stability** 0	

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Ensure adequate ventilation. Avoid contact with skin, eyes, and inhalation of vapors. Use personal protective equipment. Refer to Section 8.

Methods for Containment Soak up with inert absorbent material, containerize, and hold for disposal. Do not flush to sewer.

Methods for Cleaning Up Neutralize spills with acid such as acetic, hydrochloric or sulfuric, absorb with vermiculite or other inert substance, and package in a suitable container for disposal. Prevent product from entering drains.

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.

Storage Keep containers tightly closed in a dry, cool, and well-ventilated place. Keep away from heat, moisture, and incompatibles. Keep away from metals and organic halogens. Ensure that leaks or spills cannot reach drains, sewers or surface waters. Keep out of the reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium azide 26628-22-8	None Known	None Known	Ceiling: 0.1 ppm Ceiling: 0.3 mg/m^3
Potassium iodide 7681-11-0	TWA: 0.01 ppm	None Known	None Known
Water 7732-18-5	None Known	None Known	None Known
Potassium hydroxide 1310-58-3	None Known	None Known	Ceiling: 2 mg/m^3

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/Face Protection Safety glasses with side-shields.

Skin and Body Protection Wear protective gloves/clothing. Gloves & Lab Coat.

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	Clear, colorless	**Odor**	Odorless
Physical State	Liquid	**pH**	14
Flash Point	Not applicable	**Autoignition Temperature**	Not applicable
Boiling Point/Range	No data available		
Specific Gravity	~1.5 (water = 1)	**Vapor Pressure**	No information available
Vapor Density	No information available		

10. STABILITY AND REACTIVITY

Stability Stable under normal conditions of use and storage.

Incompatible Products Strong acids. Metals. Water-reactive, reacts vigorously with water.

Conditions to Avoid Excessive heat. Incompatible products.

Hazardous Decomposition Products Carbon oxides (COx). Potassium Oxides.

Hazardous Reactions Reacts violently with water. Contact with metals may evolve flammable hydrogen gas.

Hazardous Polymerization Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium azide	27 mg/kg (Rat)	20 mg/kg (Rabbit)	None Known
Potassium iodide	None Known	None Known	None Known
Water	90 mL/kg (Rat)	None Known	None Known
Potassium hydroxide	214 mg/kg (Rat)	None Known	85 mg/L Gambusia affinis 24 hr

Chronic Toxicity

Chronic Toxicity Prolonged exposure may cause chronic effects.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium azide	None Known	None Known	None Known	None Known
Potassium iodide	None Known	None Known	None Known	None Known
Water	None Known	None Known	None Known	None Known
Potassium hydroxide	None Known	None Known	None Known	None Known

Chemical Name	EU - Endocrine Disrupters Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
Sodium azide	None Known	None Known	None Known
Potassium iodide	None Known	None Known	None Known
Water	None Known	None Known	None Known
Potassium hydroxide	None Known	None Known	None Known

12. ECOLOGICAL INFORMATION

Ecotoxicity

The material may be toxic to aquatic life.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Sodium azide	None Known	LC50= 0.7 mg/L Lepomis macrochirus 96 h LC50= 0.8 mg/L Oncorhynchus mykiss 96 h LC50= 5.46 mg/L Pimephales promelas 96 h	None Known	None Known
Potassium iodide	None Known	None Known	None Known	None Known
Water	None Known	None Known	None Known	None Known
Potassium hydroxide	None Known	None Known	None Known	None Known

Persistence and Degradability Based on components product is expected to be poorly eliminated from water and poorly biodegradable.

Bioaccumulation/Accumulation Some components of this material have some potential to bioaccumulate but not all have been tested. Sodium azide: When released into the soil, this material is not expected to biodegrade. When released into the soil, this material is expected to leach into groundwater. When released into the air, this material may be moderately degraded by photolysis.

Chemical Name	Log Pow
Sodium azide	None Known
Potassium iodide	None Known
Water	None Known
Potassium hydroxide	= 0.65 = 0.83

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method Dispose of in accordance with local regulations. Should not be released into the environment.

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Sodium azide - 26628-22-8	None Known	P105	None Known	None Known
Potassium iodide - 7681-11-0	None Known	None Known	None Known	None Known
Water - 7732-18-5	None Known	None Known	None Known	None Known
Potassium hydroxide - 1310-58-3	None Known	None Known	None Known	None Known

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name CORROSIVE LIQUIDS, TOXIC, NOS (Potassium hydroxide/Sodium azide solution)
Hazard Class 8
Subsidiary Class 6.1
UN-No 2922
Packing Group II
Reportable Quantity (RQ) 1000

IATA

UN-No 2922

Proper Shipping Name	CORROSIVE LIQUIDS, TOXIC, NOS (Potassium hydroxide/Sodium azide solution)
Hazard Class	8
Subsidiary Class	6.1
Packing Group	II

IMDG/IMO

Proper Shipping Name	CORROSIVE LIQUIDS, TOXIC, NOS (Potassium hydroxide/Sodium azide solution)
Hazard Class	8
Subsidiary Class	6.1
UN-No	2922
Packing Group	II

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Sodium azide 26628-22-8 (1.05)	Present	X	X	1-482	X	KE-31357	X	X
Potassium iodide 7681-11-0 (15)	Present	X	X	(1)-439	X	KECL	X	X
Water 7732-18-5 (to 100%)	Present	X	X	ENCS	X	KE-35400	X	X
Potassium hydroxide 1310-58-3 (70)	Present	X	X	1-369	X	KE-29139	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 contains a chemical or 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 %
Sodium azide	26628-22-8	1.05	1.0
Potassium iodide	7681-11-0	15	None Known
Water	7732-18-5	to 100%	None Known
Potassium hydroxide	1310-58-3	70	None Known

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	Yes

Clean Water Act

This product contains the following substances which are regulated 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
Sodium azide 26628-22-8 (1.05)	None Known	None Known	None Known	None Known
Potassium iodide 7681-11-0 (15)	None Known	None Known	None Known	None Known
Water 7732-18-5 (to 100%)	None Known	None Known	None Known	None Known
Potassium hydroxide 1310-58-3 (70)	1000 lb	None Known	None Known	X

Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Sodium azide	26628-22-8	1.05	None Known	None Known	None Known	None Known
Potassium iodide	7681-11-0	15	None Known	None Known	None Known	None Known
Water	7732-18-5	to 100%	None Known	None Known	None Known	None Known
Potassium hydroxide	1310-58-3	70	None Known	None Known	None Known	None Known

CERCLA

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Sodium azide	1000 lb	1000 lb
Potassium iodide	None Known	None Known
Water	None Known	None Known
Potassium hydroxide	1000 lb	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
Sodium azide	26628-22-8	None Known
Potassium iodide	7681-11-0	None Known
Water	7732-18-5	None Known
Potassium hydroxide	1310-58-3	None Known

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Sodium azide	X	X	X	None Known	X
Potassium iodide	None Known	None Known	None Known	None Known	None Known
Water	None Known	None Known	None Known	None Known	None Known
Potassium hydroxide	X	X	X	None Known	X

International Regulations

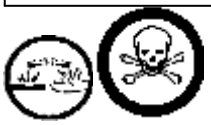
Mexico - Grade

Chemical Name	Carcinogen Status	Exposure Limits
Sodium azide	None Known	None Known
Potassium iodide	None Known	None Known
Water	None Known	None Known
Potassium hydroxide	None Known	None Known

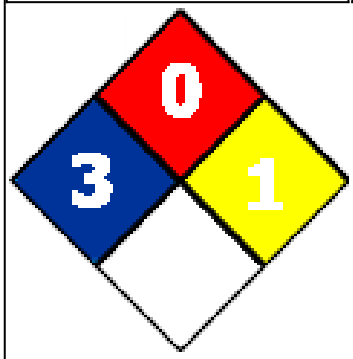
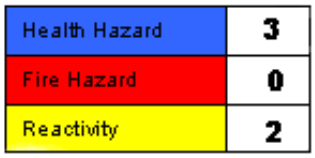
Canada

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
Sodium azide 26628-22-8 (1.05)	1 % D1A
Potassium iodide 7681-11-0 (15)	1 % D2A
Water 7732-18-5 (to 100%)	Uncontrolled product according to WHMIS classification criteria
Potassium hydroxide 1310-58-3 (70)	1 % D1B E



16. OTHER INFORMATION

NFPA	HMIS	PPE	Transport Symbol
			

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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