

Issuing Date 7/26/2012

Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name SODIUM CYANIDE, 10%

Product Code(s) 6565

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

CORROSIVE

MAY BE FATAL IF SWALLOWED

May be fatal if absorbed through skin

May be harmful if inhaled

Contact with acid liberates poisonous gas

May cause burns to eyes, skin, and mucous membranes

Appearance Clear, colorless**Physical State** Liquid**Odor** Slight, Almond

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

Potential Health Effects

Principle Routes of Exposure Skin contact, Ingestion.

Acute Toxicity**Eyes**

Irritating to eyes. May cause burns. Causes irritation, redness, and pain. May be absorbed through the eye in harmful amounts.

Skin

Irritating to skin. May cause burns. May be fatal if absorbed through skin.

Inhalation

Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Cyanosis.

Ingestion

Corrosive. May be fatal if swallowed. Cyanosis.

Chronic Effects

Prolonged exposure may cause chronic effects. Repeated or prolonged exposure may cause central nervous system damage. Prolonged or repeated inhalation may cause damage to the lungs.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS-No | Weight % |
|------------------|-----------|----------|
| Sodium hydroxide | 1310-73-2 | 0.2 |
| Sodium cyanide | 143-33-9 | 10 |
| Water | 7732-18-5 | to 100% |

4. FIRST AID MEASURES

| | |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General Advice | An emergency cyanide poisoning antidote kit should be available prior to any work with cyanide (amyl nitrite, sodium nitrite and sodium thiosulfate). A course of action should also be planned, practiced, and included in the kit. |
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. |
| Skin Contact | Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes. Call a physician immediately. |
| Inhalation | Call a physician immediately. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and contact emergency personnel. |
| Ingestion | Call a physician or Poison Control Center immediately. Give activated charcoal. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. |
| Notes to Physician | Symptoms may be delayed. |
| 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. Contact with acids causes this material to release highly flammable and toxic hydrogen cyanide gas. | | | |
| Flash Point | Not applicable | | | |
| Suitable Extinguishing Media | Dry chemical. | | | |
| Unsuitable Extinguishing Media | Do not use CO ₂ (Carbon dioxide). Can react with this material to produce hydrogen cyanide. | | | |
| Explosion Data | | | | |
| NFPA | Health Hazard 3 | Flammability 0 | Stability 1 | Physical and Chemical Hazards - |
| HMIS | Health Hazard 3 | Flammability 0 | Stability 2 | |

6. ACCIDENTAL RELEASE MEASURES

| | |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal Precautions | Refer to Section 8. Evacuate personnel to safe areas. Ensure adequate ventilation. Allow only qualified personnel to clear spill. Wear respiratory protection. Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid contact with skin, eyes and inhalation of vapors. |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| | |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 | Clean spill area with sodium hypochlorite solution. Clean contaminated surface thoroughly. After cleaning, flush away traces with water. |

7. HANDLING AND STORAGE

| | |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Handling | Refer to Section 8. Use only in area provided with appropriate exhaust ventilation. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink, or smoke when using this product. |
| Storage | Keep containers tightly closed in a dry, cool, and well-ventilated place. Store away from strong acids and oxidizers. Ensure that leaks or spills cannot reach drains, sewers or surface waters. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|-------------------------------|------------|--------------------------|--------------------------------------------------------------------------------|
| Sodium hydroxide 1310-73-2 | None Known | TWA: 2 mg/m ³ | IDLH: 10 mg/m ³ Ceiling: 2 mg/m ³ |
| Sodium cyanide 143-33-9 | None Known | TWA: 5 mg/m ³ | IDLH: 25 mg/m ³ Ceiling: 4.7 ppm Ceiling: 5 mg/m ³ |
| Water 7732-18-5 | None Known | None Known | None Known |

NIOSH IDLH: Immediately Dangerous to Life or Health

| | |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Engineering Measures | Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Use only under a chemical fume hood. |
| Personal Protective Equipment | |
| Eye/Face Protection | Safety glasses with side-shields. Face-shield. |
| Skin and Body Protection | Impervious clothing. Gloves & Lab Coat. |
| Respiratory Protection | Use mechanical ventilation (fume hood). 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 | Slight, Almond |
| Physical State | Liquid | pH | 9 (0.25g/10mL water) |
| Flash Point | Not applicable | Boiling Point/Range | No data available |
| Vapor Pressure | No information available | Vapor Density | No information available |

10. STABILITY AND REACTIVITY

| | |
|------------------|-------------------------------------------------------------------------------------------------|
| Stability | Stable under normal conditions of use and storage. Stable under recommended storage conditions. |
|------------------|-------------------------------------------------------------------------------------------------|

| | |
|-----------------------------------------|-----------------------------------------------------------------------------------|
| Incompatible Products | Acids. Strong oxidizing agents. |
| Conditions to Avoid | Moisture. Incompatible products. |
| Hazardous Decomposition Products | Hydrogen cyanide. Reacts with carbon dioxide in air to form hydrogen cyanide gas. |
| Hazardous Reactions | Reacts with acids to liberate toxic and flammable hydrogen cyanide gas. |
| Hazardous Polymerization | Hazardous polymerization does not occur. |

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information Expected to be very toxic by ingestion based on rat oral LD50 of active ingredient.

| Chemical Name | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|------------------|--------------------|-----------------------|-----------------|
| Sodium hydroxide | None Known | 1350 mg/kg (Rabbit) | None Known |
| Sodium cyanide | 6.44 mg/kg (Rat) | 10.4 mg/kg (Rabbit) | None Known |
| Water | 90 mL/kg (Rat) | None Known | None Known |

Chronic Toxicity

Chronic Toxicity Prolonged exposure may cause chronic effects. Repeated or prolonged exposure may cause central nervous system damage. Prolonged or repeated inhalation may cause damage to the lungs.

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|------------------|------------|------------|------------|------------|
| Sodium hydroxide | None Known | None Known | None Known | None Known |
| Sodium cyanide | None Known | None Known | None Known | None Known |
| Water | None Known | None Known | None Known | None Known |

Target Organ Effects Respiratory system, Blood, Central nervous system (CNS), Skin, Thyroid.

Endocrine Disruptor Information

| Chemical Name | EU - Endocrine Disruptors Candidate List | EU - Endocrine Disruptors - Evaluated Substances | Japan - Endocrine Disruptor Information |
|------------------|------------------------------------------|--------------------------------------------------|-----------------------------------------|
| Sodium hydroxide | None Known | None Known | None Known |
| Sodium cyanide | None Known | None Known | None Known |
| Water | None Known | None Known | None Known |

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

| Chemical Name | Toxicity to Algae | Toxicity to Fish | Microtox | Daphnia Magna (Water Flea) |
|------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------------------|
| Sodium hydroxide | None Known | LC50= 45.4 mg/L Oncorhynchus mykiss 96 h | None Known | None Known |
| Sodium cyanide | None Known | LC50 0.05 - 0.075 mg/L Oncorhynchus mykiss 96 h LC50= 0.083 mg/L Lepomis macrochirus 96 h LC50= 0.12 mg/L Pimephales promelas 96 h | None Known | EC50 = 0.17 mg/L 96 h |
| Water | None Known | None Known | None Known | None Known |

Persistence and Degradability No information available.

| Chemical Name | Log Pow |
|------------------|------------|
| Sodium hydroxide | None Known |
| Sodium cyanide | None Known |
| Water | None Known |

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method Dispose of in accordance with local regulations. This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261). Should not be released into the environment.

US EPA Waste Number US EPA Waste Number

| Chemical Name | RCRA - Halogenated Organic Compounds | RCRA - P Series Wastes | RCRA - F Series Wastes | RCRA - K Series Wastes |
|------------------------------|--------------------------------------|------------------------|------------------------|------------------------|
| Sodium hydroxide - 1310-73-2 | None Known | None Known | None Known | None Known |
| Sodium cyanide - 143-33-9 | None Known | P106 | None Known | None Known |
| Water - 7732-18-5 | None Known | None Known | None Known | None Known |

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name CYANIDE SOLUTION, N.O.S. (10% Sodium Cyanide)
Hazard Class 6.1
UN-No 1935
Packing Group I

IATA

UN-No 1935
Proper Shipping Name CYANIDE SOLUTION, N.O.S. (10% Sodium Cyanide)
Hazard Class 6.1
Packing Group I

IMDG/IMO

Proper Shipping Name CYANIDE SOLUTION, N.O.S. (10% Sodium Cyanide)

| | |
|----------------------|------|
| Hazard Class | 6.1 |
| UN-No | 1935 |
| Packing Group | I |

15. REGULATORY INFORMATION

International Inventories

| Component | TSCA | DSL | EINECS/ELINCS | ENCS | IECSC | KECL | PICCS | AICS |
|---------------------------------------|---------|-----|---------------|---------------|-------|----------|-------|------|
| Sodium hydroxide 1310-73-2 (0.2) | Present | X | X | 1-410; 2-1972 | X | KE-31487 | X | X |
| Sodium cyanide 143-33-9 (10) | T | X | X | 1-158; 1-159 | X | KE-31401 | 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 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 hydroxide | 1310-73-2 | 0.2 | None Known |
| Sodium cyanide | 143-33-9 | 10 | 1.0 |
| Water | 7732-18-5 | to 100% | 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 hydroxide 1310-73-2 (0.2) | None Known | None Known | None Known | None Known |
| Sodium cyanide 143-33-9 (10) | 10 lb | None Known | None Known | X |
| 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)

This product does not contain any HAPs.

| Chemical Name | CAS-No | Weight % | HAPS data | VOC Chemicals | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|------------------|-----------|----------|------------|---------------|-------------------------|-------------------------|
| Sodium hydroxide | 1310-73-2 | 0.2 | None Known | None Known | None Known | None Known |
| Sodium cyanide | 143-33-9 | 10 | 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 |
|------------------|--------------------------|------------------------------------|
| Sodium hydroxide | 1000 lb | None Known |
| Sodium cyanide | 10 lb | 10 lb |
| 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 |
|------------------|-----------|---------------------|
| Sodium hydroxide | 1310-73-2 | None Known |
| Sodium cyanide | 143-33-9 | None Known |
| Water | 7732-18-5 | None Known |

U.S. State Right-to-Know Regulations

| Chemical Name | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|------------------|---------------|------------|--------------|------------|--------------|
| Sodium hydroxide | X | X | X | None Known | X |
| Sodium cyanide | X | X | X | None Known | X |
| Water | None Known | None Known | None Known | None Known | None Known |

International Regulations

Mexico - Grade

| Chemical Name | Carcinogen Status | Exposure Limits |
|------------------|-------------------|----------------------------------|
| Sodium hydroxide | None Known | None Known |
| Sodium cyanide | None Known | Mexico: TWA= 5 mg/m ³ |
| 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 |
|---------------------------------------|-----------------------------------------------------------------|
| Sodium hydroxide 1310-73-2 (0.2) | 1 % E |
| Sodium cyanide 143-33-9 (10) | 1 % D1A E |
| 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 data-bbox="508 201 716 247">Health Hazard</td> <td data-bbox="724 201 792 247">3</td> </tr> <tr> <td data-bbox="508 249 716 296">Fire Hazard</td> <td data-bbox="724 249 792 296">0</td> </tr> <tr> <td data-bbox="508 298 716 344">Reactivity</td> <td data-bbox="724 298 792 344">2</td> </tr> </table> | Health Hazard | 3 | Fire Hazard | 0 | Reactivity | 2 |  |  |
| Health Hazard | 3 | | | | | | | | |
| Fire Hazard | 0 | | | | | | | | |
| Reactivity | 2 | | | | | | | | |

Prepared By
Issuing Date
Revision Date
Revision Note
 Update to Format
Disclaimer

Regulatory Affairs Department
 7/26/2012
 27-Jul-2012

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