

Safety Data Sheet
According to the (US) Hazard Communication Standard (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

| | |
|----------------------------|--|
| Product Name | Alkaline-Iodide Azide Reagent |
| NCL Catalog Number | A-15 |
| Product Description | Laboratory chemical, APHA for DO. |
| Supplier | |
| NCL of Wisconsin, Inc. | Telephone: 1-800-648-7836 Fax: 715-449-2454 |
| P.O. Box 8 | Emergency Contact: 1-800-424-9300 (Chemtrec) |
| Biramwood, WI 54414 | Email: nclabs@nclabs.com |

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification

| | |
|--------------------|-------------------|
| Acute Toxicity | Dermal Category 4 |
| Skin Corrosion | Category 1A |
| Serious Eye Damage | Category 1 |
| Aquatic Chronic | Category 3 |



Signal Word

Danger

Hazard Statements

| | |
|------|--|
| H312 | Harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H412 | Harmful to aquatic life with long lasting effects. |

Precautionary Statements

| | |
|----------------|--|
| P260 | Do not breathe mist/vapors/spray. |
| P264 | Wash exposed skin thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P301+P330+P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P363 | Wash contaminated clothing before reuse. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P310 | Immediately call a POISON CENTER or doctor. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a POISON CENTER or doctor. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container to comply with local, state, and federal regulations. |

Other Hazards Not Contributing to the Classification

None under normal conditions.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| | |
|--------------------------|----------------|
| Chemical Identity | Not applicable |
| Common Name | Not applicable |

Mixture

| Name | CAS # | Approximate % |
|------------------|------------|---------------|
| Water | 7332-18-5 | 34 |
| Sodium Hydroxide | 1310-73-2 | 50 |
| Potassium Iodide | 7681-11-0 | 15 |
| Sodium Azide | 26628-22-8 | 1 |

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

| | |
|-----------------------------------|--|
| General First Aid Measures | Never give anything by mouth to an unconscious person. Seek medical advice if you feel unwell. |
| If Inhaled | Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. |
| In Case of Skin Contact | Immediately call a POISON CENTER or doctor/physician. Flush skin with plenty of soap and water. Wash contaminated clothing before reuse. Remove/take off immediately all contaminated clothing. Rinse skin with water or shower. |
| In Case of Eye Contact | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Immediately call a POISON CENTER or doctor/physician. Continue rinsing. |
| If Swallowed | Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor. |

Most Important Symptoms/Effects Acute and Delayed

| | |
|---------------------------|---|
| After Inhalation | Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Possible laryngeal spasm/oedema. Risk of lung oedema. Respiratory difficulties. |
| After Skin Contact | Caustic burns/corrosion of the skin. Slow-healing wounds. |
| After Eye Contact | Corrosion of the eye tissue. Permanent eye damage. Causes serious eye damage. |
| After Ingestion | Vomiting. Diarrhea. Burns to the gastric/intestinal mucosa. Possible esophageal perforation. Bleeding of the gastrointestinal tract. Shock. Disturbances of consciousness. |
| Chronic Symptoms | On repeated exposure: Dry skin. Skin rash/inflammation. Possible inflammation of the respiratory tract. |

Indication of Immediate Medical Attention and Special Treatment Needed

Seek medical attention.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

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|---------------------------------------|--|
| Suitable Extinguishing Media | Foam. Dry powder. Sand. Carbon dioxide. Water spray. |
| Unsuitable Extinguishing Media | Do not use high pressure water stream. |

Special Hazards Arising from the Chemical

Release of corrosive gases/vapors upon heating. Absorbs atmospheric CO₂. Violent exothermic reaction with some acids. Reacts with some metals to release highly flammable gases/vapors.

Special Protective Actions for Fire-Fighters

Wear self-contained breathing apparatus and protective clothing. Keep exposed containers cool with water spray. Keep upwind. Consider evacuation. Dilute toxic gases with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

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|----------------------------------|--|
| Personal Precautions | Use personal protective equipment (see section 8). Evacuate area of non-essential personnel. Eliminate ignition sources. |
| Environmental Precautions | Prevent entry to surface and ground waters. |

Methods and Materials for Containment and Cleaning Up

Use inert solids to soak up spills. Collect spillage. Store away from other materials. Ensure compliance with federal, state, and local regulations. Neutralize small liquid spills with acid solution. Damaged/cooled tanks must be emptied. Wash clothing and equipment after handling.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with eyes and skin. Avoid breathing vapors. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

Conditions for Safe Storage Including any Incompatibilities

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Store away from sunlight, which can contribute to instability. Store away from strong bases, strong acids, sources of ignition, and heat sources.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

| Potassium Iodide (7681-11-0) | | |
|-------------------------------------|-------------------------------------|------------------------|
| USA ACGIH | ACGIH TWA (ppm) | 0.01 ppm |
| Sodium Azide (26628-22-8) | | |
| USA ACGIH | ACGIH Ceiling (mg/m ³) | 0.29 mg/m ³ |
| USA ACGIH | ACGIH Ceiling (ppm) | 0.11 ppm |
| Sodium Hydroxide (1310-73-2) | | |
| USA ACGIH | ACGIH Ceiling (mg/m ³) | 2 mg/m ³ |
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | 2 mg/m ³ |

Appropriate Engineering Controls

Material should be handled or transferred in a fume hood or with equivalent ventilation.

Individual Protection Measures

Avoid all unnecessary exposure.

Eye/Face Protection

Use chemical safety goggles and /or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye-wash fountain and quick-drench facilities in work area.

Skin Protection

Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.

Respiratory Protection

Wear appropriate mask.

Other Information

Do not eat, drink, or smoke when using this product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|-------------------|
| Physical State | Liquid |
| Color | Colorless |
| Odor | None |
| Odor Threshold | Not determined |
| pH | Not determined |
| Melting Point/Freezing Point | Not determined |
| Initial Boiling Point and Boiling Range | Not determined |
| Flash Point | Not determined |
| Evaporation Rate | Not determined |
| Flammability (Solid, Gas) | Not determined |
| Upper/Lower Flammability/Explosive Limits | Not determined |
| Vapor Pressure | Not determined |
| Vapor Density | Not determined |
| Relative Density | Not determined |
| Solubility | Soluble in water. |
| Partition Coefficient: n-octanol/water | Not determined |
| Auto-Ignition Temperature | Not determined |
| Decomposition Temperature | Not determined |

Viscosity Not determined

SECTION 10: STABILITY AND REACTIVITY

Reactivity Release of corrosive gases/vapors. Absorbs the atmospheric CO₂. Violent exothermic reaction with some acids. Reacts with some metals to release highly flammable gases/vapors (hydrogen).

Chemical Stability Stable under ordinary conditions of use and storage.

Possibility of Hazardous Reactions Reacts violently with acids.

Conditions to Avoid Extremely high or low temperatures. Heat and sunlight can contribute to instability.

Incompatible Materials Strong acids and metals.

Hazardous Decomposition Products Sodium oxide and corrosive vapors.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity Harmful in contact with skin.

| | |
|-------------------------------------|------------|
| Sodium Azide (26628-22-8) | |
| LD50 oral rat | 27 mg/kg |
| LD50 dermal rat | 20 mg/kg |
| Sodium Hydroxide (1310-73-2) | |
| LD50 dermal rabbit | 1350 mg/kg |

Skin Corrosion/Irritation Causes severe skin burns.

Serious Eye Damage/Irritation Causes serious eye damage.

Respiratory or Skin Sensitization Not classified

Germ Cell Mutagenicity Not classified

Carcinogenicity Not classified

Reproductive Toxicity Not classified

Specific Target Organ Toxicity (Single Exposure) Not classified

Specific Target Organ Toxicity (Repeated Exposure) Not classified

Aspiration Hazard Not classified

Potential Adverse Human Health Effects and Symptoms No data available

After Inhalation Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Possible laryngeal spasm/oedema. Risk of lung oedema. Respiratory difficulties.

After Skin Contact Caustic burns/corrosion of the skin. Slow-healing wounds.

After Eye Contact Corrosion of the eye tissue. Permanent eye damage. Causes serious eye damage.

After Ingestion Vomiting. Diarrhea. Burns to the gastric/intestinal mucosa. Possible esophageal perforation. Bleeding of the gastrointestinal tract. Shock. Disturbances of consciousness.

Chronic Symptoms On repeated exposure: Dry skin. Skin rash/inflammation. Possible inflammation of the respiratory tract.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity Ecology – Water: Mild water pollutant to surface water. Ground water pollutant. Harmful to fishes. Harmful to invertebrates. pH shift.

| Sodium Hydroxide (1310-73-2) | |
|-------------------------------------|--|
| LC50 fish 1 | 45.4 mg/l (96h; Salmo gairdneri (Oncorhynchus mykiss)) |
| EC50 Daphnia 1 | 40.4 mg/l (48h; Ceriodaphnia magna) |
| LC50 fish 2 | 189 mg/l (48h; Leuciscus idus) |
| TLM fish 1 | 99 mg/l (48h; Lepomis macrochirus) |
| TLM fish 2 | 125 ppm (96h; Gambusia affinis) |

| | |
|--------------------------------------|-----------------------------------|
| Persistence and Degradability | Not applicable |
| Bioaccumulative Potential | Not applicable. Log Pow: -3.88 |
| Mobility in Soil | Not applicable |
| Other Adverse Effects | Avoid release to the environment. |

SECTION 13: DISPOSAL CONSIDERATIONS

Methods of Disposal

| | |
|---------------------------------|--|
| Disposal Recommendations | Dispose of contents/containers in accordance with federal, state, and local regulations. Remove for physicochemical/biological treatment. Do not discharge into surface water. |
| Other Information | Avoid release to the surrounding environment. |

SECTION 14: TRANSPORT INFORMATION

| | |
|-----------------------------------|---------------------------|
| UN Number | UN1760 |
| UN Shipping Name | Corrosive liquids, n.o.s. |
| Transport Hazard Class(es) | Not determined |
| Packing Group | Not applicable |
| Environmental Hazards | Not applicable |
| Transport in Bulk | Not applicable |
| Other Precautions | Not applicable |

SECTION 15: REGULATORY INFORMATION

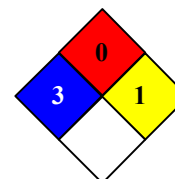
| Sodium Hydroxide (1310-73-2) | |
|---|---------------------------------|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| RQ (Reportable quantity) | 1000 lb |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard |
| Potassium Iodide (7681-11-0) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| Sodium Azide (26628-22-8) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |

SECTION 16: OTHER INFORMATION

Revision Date: 01/05/2015

NFPA Hazards

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|-------------------------------|--|
| Health Hazard | 3: Short exposure could cause serious temporary or moderate residual injury. |
| Fire Hazard | 0: Materials that will not burn. |
| Reactivity/Instability | 1: Normally stable, but can become unstable at elevated temperatures and pressure. |



HMIS III Rating

Health 3: Major injury likely unless prompt action is taken and medical treatment is given.

Flammability 0: Minimal Hazard

Physical Hazard 1: Materials that are normally stable but can become unstable at high temperatures and pressures.

Personal Protection H

| A-15 | |
|---------------------|---|
| Health | 3 |
| Flammability | 0 |
| Physical Hazard | 1 |
| Personal Protection | H |

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END OF SAFETY DATA SHEET