

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 02.19.2015**Reagent B****SECTION 1: Identification of the substance/mixture and of the supplier**

**Product name:** Reagent B  
**Manufacturer/Supplier Article number:** FEDAI4205-AA

**Recommended uses of the product and restrictions on use:** Laboratory chemicals**Manufacturer Details:**

AquaPhoenix Scientific  
860 Gitts Run Road,  
Hanover, PA 17331  
(717) 632-1291

**Supplier Details:**

Fisher Science Education  
6771 Silver Crest Road, Nazareth, PA 18064  
800 955-1177

**Emergency telephone number:**

Emergency Telephone No.: 800-255-3924

**SECTION 2: Hazards identification****Classification of the substance or mixture:****Corrosive**

Skin corrosion, category 1A  
Corrosive to metals, category 1  
Serious eye damage, category 1

**Health hazard**

Specific target organ toxicity following repeated exposure, category 1

**Irritant**

Acute toxicity (oral, dermal, inhalation), category 4

STOT RE 1.

AcTox Oral 4.

Corrosive to Metals 1.

Skin corr. 1A.

Eye irrit. cat 1.

**Signal word:** Danger**Hazard statements:**

May be corrosive to metals.  
Causes severe skin burns and eye damage.  
Causes serious eye damage.  
Harmful if swallowed.  
Causes damage to organs through prolonged or repeated exposure.

**Precautionary statements:**

If medical advice is needed have product container or label at hand.  
Keep out of reach of children.

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 02.19.2015**Reagent B**

Read label before use.  
 Keep only in original container.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 Wash skin thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Do not breathe dust/fume/gas/mist/vapors/spray.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 Wash contaminated clothing before reuse.  
 Absorb spillage to prevent material damage.  
 Call a POISON CENTER or doctor/physician if you feel unwell.  
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
 IF ON SKIN: Wash with soap and water.  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
 Specific treatment (see supplemental first aid instructions on this label).  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 Immediately call a POISON CENTER or doctor/physician.  
 Store in a well ventilated place. Keep container tightly closed.  
 Store locked up.  
 Store in corrosive resistant stainless steel container with a resistant inner liner.  
 Dispose of contents and container as instructed in Section 13.

**Other Non-GHS Classification:** None**SECTION 3: Composition/information on ingredients****Ingredients:**

<b>Ingredients:</b>		
CAS 1310-73-2	Sodium Hydroxide 50% w/w	28.871 %
CAS 7732-18-5	Water	55 %
CAS 7681-11-0	Potassium Iodide, ACS	15 %
CAS 26628-22-8	Sodium Azide, 99%	1 %
Percentages are by weight		

**SECTION 4: First aid measures****Description of first aid measures****After inhalation:**

Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Seek medical advice if discomfort or irritation persists. Give artificial respiration if necessary. If breathing is difficult give oxygen.

**After skin contact:**

Seek medical attention immediately. Wash affected area with soap and water. Rinse thoroughly. Rinse or flush skin/hair gently with water for at least 30 minutes.

**After eye contact:**

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 02.19.2015**Reagent B**

Protect unexposed eye. Remove contact lens(es) if able to do so during rinsing. Seek immediate medical attention (ophthalmologist). Rinse or flush eye gently with water for at least 30 minutes, lifting upper and lower lids.

**After swallowing:**

Seek medical attention immediately. Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water.

**Most important symptoms and effects, both acute and delayed:**

Headache. Shortness of breath. Irritation/burns, all routes of exposure. May cause severe burns, blindness and/or permanent damage. May cause burns, deep penetrating ulcerations of the skin, delayed tissue destruction, redness, pain. Nausea.

**Indication of any immediate medical attention and special treatment needed:**

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

**SECTION 5: Firefighting measures****Extinguishing media****Suitable extinguishing agents:**

Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam. If in laboratory setting, follow laboratory fire suppression procedures.

**Unsuitable extinguishing agents:** None

**Special hazards arising from the substance or mixture:**

Thermal decomposition can lead to release of irritating gases and vapors. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Keep product and empty container away from heat and sources of ignition.

**Advice for firefighters:****Protective equipment:**

Wear protective eyewear, gloves, and clothing. Use NIOSH-approved respiratory protection/breathing apparatus. Refer to Section 8.

**Additional information (precautions):**

Avoid contact with skin, eyes and clothing. Move product containers away from fire or keep cool with water spray as a protective measure, where feasible. Use spark-proof tools and explosion-proof equipment.

**SECTION 6: Accidental release measures****Personal precautions, protective equipment and emergency procedures:**

Ensure adequate ventilation. Protect from heat. Stop the spill, if possible. Contain spilled material by diking or using inert absorbent. Use under a fume hood. Wear protective equipment. Transfer to a disposal or recovery container. Use spark-proof tools and explosion-proof equipment. Use respiratory protective device against the effects of fumes/dust/aerosol. Keep unprotected persons away. Keep away from ignition sources.

**Environmental precautions:**

Prevent from reaching drains, sewer or waterway. Do not release into environment. Collect contaminated soil for characterization per Section 13.

**Methods and material for containment and cleaning up:**

Collect liquid and dilute with water. Collect liquids using vacuum or by use of absorbents. Place into properly labeled containers for recovery or disposal. If necessary, use trained response staff/contractor. Refer to Section 8. Refer to Section 13. Neutralize with dilute acid solutions. Absorb with suitable material. Dispose of remaining solid as normal refuse. Always obey local regulations. Wear protective eyewear, gloves, and clothing. Follow proper disposal methods. If in a laboratory setting, follow Chemical Hygiene Plan procedures.

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 02.19.2015**Reagent B****Reference to other sections:** None**SECTION 7: Handling and storage****Precautions for safe handling:**

Avoid contact with skin, eyes and clothing. Do not inhale gases, fumes, dust, mist, vapor, and aerosols. Wear protective eyewear, gloves, and clothing. Do not mix with acids. Do not eat, drink, smoke, or use personal products when handling chemical substances. Wash hands after handling. Follow good hygiene procedures when handling chemical materials. If in a laboratory setting, follow Chemical Hygiene Plan. Use only in well ventilated areas. Refer to Section 8.

**Conditions for safe storage, including any incompatibilities:**

Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Store away from foodstuffs. Store away from oxidizing agents. Store in cool, dry conditions in well sealed containers. Protect from freezing and physical damage. Store locked up. Store only in original container. Keep container tightly closed in a cool, dry, well-ventilated area. Store as a corrosive.

**SECTION 8: Exposure controls/personal protection****Control parameters:**

26628-22-8, Sodium Azide, 99%., NIOSH REL: C 0.1 ppm (as HN<sub>3</sub>) skin C 0.3 mg/m<sup>3</sup> (as NaN<sub>3</sub>) skin.  
 1310-73-2, Sodium Hydroxide, OSHA 2 mg/m<sup>3</sup>.  
 1310-73-2, Sodium Hydroxide, ACGIH NIOSH 10 mg/m<sup>3</sup>.  
 7681-11-0, Potassium Iodide, ACS, ACGIH NIOSH 0.01 mg/m<sup>3</sup>.  
 26628-22-8, Sodium Azide, 99%., ACGIH TLV: 0.29 mg/m<sup>3</sup> (0.11 ppm) (Ceiling value).

**Appropriate engineering controls:**

Use under a fume hood. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or dusts (total/respirable) below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

**Respiratory protection:**

Use under a fume hood. Not required under normal conditions of use. Use suitable respiratory protective device when high concentrations are present. Use suitable respiratory protective device when aerosol or mist is formed. For spills, respiratory protection may be advisable.

**Protection of skin:**

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Wear protective clothing. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation being used/handled. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

**Eye protection:**

Safety glasses with side shields or goggles.

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 02.19.2015**Reagent B**

**General hygienic measures:** Wash hands before breaks and immediately after handling the product. The usual precautionary measures are to be adhered to when handling chemicals. Keep away from food, beverages and feed sources. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases/fumes/dust/mist/vapor/aerosols. Avoid contact with the eyes and skin. Before re-wearing, wash contaminated clothing. Perform routine housekeeping. Wash hands and exposed skin with soap and plenty of water.

**SECTION 9: Physical and chemical properties**

<b>Appearance (physical state, color):</b>	Clear, colorless liquid	<b>Explosion limit lower:</b> <b>Explosion limit upper:</b>	Not determined Not determined
<b>Odor:</b>	Odorless	<b>Vapor pressure at 20°C:</b>	Not determined
<b>Odor threshold:</b>	Not determined	<b>Vapor density:</b>	Not determined
<b>pH-value:</b>	>13	<b>Relative density:</b>	Approx. 1.55
<b>Melting/Freezing point:</b>	Not determined	<b>Solubilities:</b>	Infinite in water.
<b>Boiling point/Boiling range:</b>	Approx. 100°C	<b>Partition coefficient (n-octanol/water):</b>	Not determined
<b>Flash point (closed cup):</b>	Not determined	<b>Auto/Self-ignition temperature:</b>	Not determined
<b>Evaporation rate:</b>	Not determined	<b>Decomposition temperature:</b>	Not determined
<b>Flammability (solid, gaseous):</b>	Not determined	<b>Viscosity:</b>	a. Kinematic: Not determined b. Dynamic: Not determined
<b>Density at 20°C:</b>	Not determined		

**SECTION 10: Stability and reactivity****Reactivity:**

None under normal processing.

**Chemical stability:**

Stable under normal conditions. No decomposition if used and stored according to specifications.

**Possible hazardous reactions:** None**Conditions to avoid:**

Incompatible materials. Excessive heat.

**Incompatible materials:**

Acids. Organic halogen compounds. Metals such as aluminum, tin, and zinc. Strong acids. Strong oxidizers.

**Hazardous decomposition products:**Sodium oxides. Decomposition by reaction with certain metals releases flammable and explosive hydrogen gas. Carbon oxides (CO, CO<sub>2</sub>). Hydrogen iodide. Oxides of sodium. Decomposition by reaction with certain metals.**SECTION 11: Toxicological information****Acute Toxicity:****ATE (oral):** 435 mg/kg bw.**Chronic Toxicity:** No additional information.

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 02.19.2015**Reagent B****Skin corrosion/irritation:**

Classified as causing severe skin burns and eye damage. Section 2.

**Serious eye damage/irritation:**

Classified as causing serious eye damage. Section 2.

**Respiratory or skin sensitization:** No additional information.**Carcinogenicity:** No additional information.**Germ cell mutagenicity:** No additional information.**Reproductive Toxicity:** No additional information.**STOT-single and repeated exposure:** No additional information.**Additional toxicological information:**

No additional information.

**SECTION 12: Ecological information****Ecotoxicity:**

Toxicity to aquatic life: , Sodium Hydroxide has high acute and chronic toxicity to aquatic life influenced by hardness and alkalinity of the receiving water.

EC50 - Daphnia pulex (Water flea) , 4.2 mg/l - 48 h.

**Persistence and degradability:**

Readily degradable in the environment.

**Bioaccumulative potential:** No additional information.**Mobility in soil:** No additional information.**Other adverse effects:** No additional information.**SECTION 13: Disposal considerations****Waste disposal recommendations:**

Consult federal state/ provincial and local regulations regarding the proper disposal of waste material that may incorporate some amount of this product. Do not allow product to reach sewage system or open water. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Neutralize with dilute acid solutions. Comply with all local, state, and federal regulations. Product/containers must not be disposed together with household garbage.

**SECTION 14: Transport information****US DOT****UN Number:**

ADR, ADN, DOT, IMDG, IATA

3266

**Limited Quantity Exception:**

None

**Bulk:****RQ (if applicable):** None**Proper shipping Name:** Corrosive Liquid, Basic, Inorganic, N.O.S. (Sodium Hydroxide Solution).**Non Bulk:****RQ (if applicable):** None**Proper shipping Name:** Corrosive Liquid, Basic, Inorganic, N.O.S. (Sodium Hydroxide Solution).

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 02.19.2015

**Reagent B****Hazard Class:** 8**Packing Group:** II.**Marine Pollutant (if applicable):** No additional information.**Comments:** None**Hazard Class:** 8**Packing Group:** II.**Marine Pollutant (if applicable):** No additional information.**Comments:** None**SECTION 15: Regulatory information****United States (USA)****SARA Section 311/312 (Specific toxic chemical listings):**

Acute, Chronic, Reactive

**SARA Section 313 (Specific toxic chemical listings):**

1310-73-2 Sodium Hydroxide.

**RCRA (hazardous waste code):**

None of the ingredients are listed.

**TSCA (Toxic Substances Control Act) :**

26628-22-8 Sodium Azide, 99% : not listed.

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):**

1310-73-2 Sodium Hydroxide 50% w/w 2000.

1310-73-2 Sodium Hydroxide 1000 lb.

Sodium Azide 1,000 lbs.

**Proposition 65 (California):****Chemicals known to cause cancer:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

**Canada****Canadian Domestic Substances List (DSL) :**

26628-22-8 Sodium Azide, 99%: not listed.

**SECTION 16: Other information**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 02.19.2015**Reagent B**

to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material. Note. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material. This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note.

**NFPA:** 3-0-0**HMIS:** 3-0-0**GHS Full Text Phrases:** None**Abbreviations and Acronyms:**

IMDG	International Maritime Code for Dangerous Goods.
PNEC.	Predicted No-Effect Concentration (REACH).
CFR	Code of Federal Regulations (USA)
SARA	Superfund Amendments and Reauthorization Act (USA).
RCRA.	Resource Conservation and Recovery Act (USA).
TSCA.	Toxic Substances Control Act (USA).
NPRI	National Pollutant Release Inventory (Canada).
DOT	US Department of Transportation.
IMDG	International Maritime Code for Dangerous Goods.
PNEC.	Predicted No-Effect Concentration (REACH).
CFR	Code of Federal Regulations (USA)
IATA	International Air Transport Association.
SARA	Superfund Amendments and Reauthorization Act (USA).
RCRA.	Resource Conservation and Recovery Act (USA).
TSCA.	Toxic Substances Control Act (USA).
NPRI	National Pollutant Release Inventory (Canada).
DOT	US Department of Transportation.
IATA	International Air Transport Association.
GHS	Globally Harmonized System of Classification and Labelling of Chemicals.
ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service (division of the American Chemical Society).
NFPA	National Fire Protection Association (USA).
GHS	Globally Harmonized System of Classification and Labelling of Chemicals.
HMIS	Hazardous Materials Identification System (USA).
WHMIS	Workplace Hazardous Materials Information System (Canada).
DNEL	Derived No-Effect Level (REACH).
ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service (division of the American Chemical Society).
NFPA	National Fire Protection Association (USA).
HMIS	Hazardous Materials Identification System (USA).



**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 02.19.2015

**Reagent B**

WHMIS Workplace Hazardous Materials Information System (Canada).

DNEL Derived No-Effect Level (REACH).