SAFETY DATA SHEET

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1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: **BIONIX BIT20S**

Company Name: Isomeric Industries Inc.
3400 Research Forest Drive, Suite B4
The Woodlands, TX 77381

Phone Number: (678)713-4275

Web site address: www.isomericindustries.com

Email address: info@isomericindustries.com

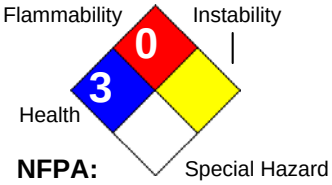
Emergency Contact: INFOTRAC United States & Canada (800)535-5053

Hazard Rating System:

HMIS:

HEALTH	3
FLAMMABILITY	0
PHYSICAL	0
PPE	H

NFPA:



2. HAZARDS IDENTIFICATION

Skin Sensitization, Category 1
Skin Corrosion/Irritation, Category 1A
Serious Eye Damage/Eye Irritation, Category 1

GHS Signal Word: **Danger**

GHS Hazard Phrases:
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.

GHS Precautionary Phrases:
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P264 - Wash hands thoroughly after handling.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

GHS Response Phrases:
P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+352 - IF ON SKIN: Wash with plenty of soap and water.
P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338 - 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/physician.
P321 - Specific treatment see ... on this label.
P333+313 - If skin irritation or rash occurs, seek medical advice/attention.
P363 - Wash contaminated clothing before reuse.

GHS Storage and Disposal Phrases:
P405 - Store locked up.
P501 - Dispose of contents/container to ...

Potential Health Effects (Acute and Chronic): Hazards not otherwise classified (HNOC) or not covered by GHS -none.

Contact may cause burns to skin and eyes.

Causes respiratory tract irritation. Causes severe eye damage. Harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration	
1310-73-2	Sodium hydroxide	4.0 -6.0 %	
2634-33-5	1,2-Benzisothiazol-3(2H)-one	19.0 -21.0 %	
7732-18-5	Water	Balance	
25265-71-8	Dipropylene glycol	No Data.	

4. FIRST AID MEASURES

Emergency and First Aid Procedures: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

In Case of Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In Case of Skin Contact: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In Case of Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital. If in eyes: Rinse caustiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: Get medical adviice or attention.

In Case of Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Signs and Symptoms Of Exposure: The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed: No data available.

Note to Physician: Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

Flash Pt: NP Method Used: Estimate

Explosive Limits: LEL: UEL:

Autoignition Pt:

Suitable Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.

Fire Fighting Instructions: Wear self contained breathing apparatus for fire fighting if necessary.
Further information: No data available. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Material will not burn.

Flammable Properties and Hazards:

Hazardous Combustion Products: nitrogen oxides. oxides of sulfur, Carbon oxides.

6. ACCIDENTAL RELEASE MEASURES

Protective Precautions, Protective Equipment and Emergency Procedures: Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8. Use personal protective equipment.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Steps To Be Taken In Case Material Is Released Or Spilled: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

7. HANDLING AND STORAGE

Precautions To Be Taken in Handling: Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2. Avoid contact with skin and eyes. Avoid contact with eyes, skin, and clothing.

Precautions To Be Taken in Storing: Keep container tightly closed in a dry and well-ventilated place. Avoid extreme temperatures. Do not expose to direct sunlight or ultraviolet light. Avoid strong oxidizing agents, mild steel, aluminum, copper and other materials.

Other Precautions: Apart from the uses mentioned in section 1.2 no other specific uses are stipulated. Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
1310-73-2	Sodium hydroxide	PEL: 2 mg/m3	CEIL: 2 mg/m3	
2634-33-5	1,2-Benzisothiazol-3(2H)-one			
7732-18-5	Water			
25265-71-8	Dipropylene glycol			

Personal Protective Equipment Symbols:

CAS #	Chemical Name	Jurisdiction	Recommended Exposure Limits	Notations
1310-73-2	Sodium hydroxide	NIOSH	CEIL: 2 mg/m3	

Respiratory Equipment (Specify Type): Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Eye Protection: Face shield and safety glasses. Eye wash station in work area.

Protective Gloves: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Full contact.
Material: Nitrile rubber, Minimum layer thickness: 0.11 mm, Break through time: 480 min. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Other Protective Clothing: Complete suit protecting against chemicals. Wear appropriate protective clothing to prevent skin exposure.

Engineering Controls (Ventilation etc.): Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. There are no special ventilation requirements.

Environmental Exposure Controls: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical States: [ ] Gas [X] Liquid [ ] Solid

Appearance and Odor: Transparent Amber.
No apparent odor.

pH:

Melting Point: 318.00 C (604.4 F)

Boiling Point: 1.00 C (33.8 F) - 100.00 C (212.0 F)

Flash Pt: NP Method Used: Estimate

Evaporation Rate:

Flammability (solid, gas):

Explosive Limits: LEL: UEL:

Vapor Pressure (vs. Air or mm Hg):

Vapor Density (vs. Air = 1):

Specific Gravity (Water = 1):

Density: 2.1300 G/CM3

Solubility in Water:

Octanol/Water Partition Coefficient:

Autoignition Pt:

Decomposition Temperature:

Viscosity:

10. STABILITY AND REACTIVITY

Reactivity: No data available.

Stability: Unstable [ ] Stable [X]

Conditions To Avoid - Instability: No data available. Protect from long-term storage below -5C.

Incompatibility - Materials To Avoid: Strong oxidizing agents, Strong acids, Organic materials, Strong reducing agents, Metals.

Hazardous Decomposition or Byproducts: No data available. In the event of fire: see section 5. Hazardous decomposition products formed under fire conditions. oxides of sulfur, Carbon oxides.

Possibility of Hazardous Reactions: Will occur [ ] Will not occur [X]

Conditions To Avoid - Hazardous Reactions: No data available.

11. TOXICOLOGICAL INFORMATION

Toxicological Information: Acute toxicity.
No data available. Inhalation: Dermal. Germ cell mutagenicity: Reproductive toxicity. Aspiration hazard: Epidemiology: Teratogenicity: No data available.
Reproductive Effects: Other Studies:
CAS# 1310-73-2: Sodium hydroxide: Mutagenicity:, Mutation test: Cytogenetic analysis., Parenteral, Insect: grasshopper., 20.00 MG. Result: Kidney, Ureter, Bladder:Other changes. ; Nucleus, Dr. A.K. Sharma, Centre of Advanced Studies in Cell and Chromosome Research, Calcutta, 35 Baliygunge Circular Rd., Calcutta 700 019 India, Vol/p/yr: 9,119, 1966
Acute toxicity, LDLO, Oral, Species: Rabbit, 500.0 MG/KG. Result: Kidney, Ureter, Bladder:Other changes. ; Naunyn-Schmiedeberg's Archiv fuer Experimentelle Pathologie und Pharmakologie., Vol/p/yr: 184,587, 1937
Standard Draize Test, Skin, Species: Rabbit, 500.0 MG, 24 H. Result: Kidney, Ureter, Bladder:Other changes. ; "Sbornik Vysledku Toxixologickeho Vysetreni Latek A Pripravku," , Institut Pro Vychovu Vedoucicn P, Marhold, J.V., Institut Pro Vychovu Vedoucicn, Pracovniku Chemickeho, Prumyclu Praha Czechoslovakia, Vol/p/yr: -,7, 1972
Standard Draize Test, Eyes, Species: Rabbit, 400.0 UG. Result: Kidney, Ureter, Bladder:Other changes. ; Oyo Yakuri. Pharmacometrics., Oyo Yakuri Kenkyukai, CPO Box 180, Sendai 980-91 Japan, Vol/p/yr: 26,627, 1983
CAS# 2634-33-5: 1,2-Benzisothiazol-3(2H)-one: Acute toxicity, LD50, Oral, Rat, 1020. MG/KG; Pharmacological Research Communications., Academic Press, Inc., 1 E. First St., Duluth, MN 55802, Vol/p/yr: 3,385, 1971
Acute toxicity, LD50, Oral, Mouse, 1150. MG/KG; Pharmacological Research

Communications., Academic Press, Inc., 1 E. First St., Duluth, MN 55802, Vol/p/yr: 3,385, 1971

Irritation or Corrosion: Skin corrosion/irritation.
Result: Tumorigenic:Tumors at site or application. Causes severe burns. Serious eye damage/eye irritation: Eyes: Rabbit.
No data available. Rabbit.
Corrosive to eyes .

Sensitization: Will not occur. No data available.

Chronic Toxicological Effects: Specific target organ toxicity -single exposure (Globally Harmonized System) No data available.
Specific target organ toxicity -repeated exposure: no data available.

Carcinogenicity/Other Information: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. CAS# 7732-18-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

12. ECOLOGICAL INFORMATION

General Ecological Information: This product is extremely toxic to fish and other aquatic organisms.
CAS# 1310-73-2: Sodium hydroxide: Effective concentration to 0 % of test organisms, Brook Trout (Salvelinus fontinalis), 25000. UG/L, Mortality, Water temperature: 11.70 C (53.1 F) - 15.60 C (60.1 F) C. Result: No observed effect. ; Toxicity Experiments with Fish in Reference to Trade Waste Pollution. I. The Problem of Water Pollution, Belding, D.L., 1927
Effective concentration to 0 % of test organisms, Water Flea (Daphnia magna), young organism(s), 240.0 PPM, 16 H, Intoxication,, Water temperature: 25.00 C (77.0 F) C; The Toxicity Thresholds of Various Substances Found in Industrial Wastes as Determined by the Use of Daphnia magna, Anderson, B.G., 1944
LC50, Western Mosquitofish (Gambusia affinis), adult(s), 125000. UG/L, 24 H, Mortality, Water temperature: 22.00 C (71.6 F) - 24.00 C (75.2 F) C, pH: 9.00; Toxicity to Gambusia affinis of Certain Pure Chemicals in Turbid Waters, Wallen, I.E., W.C. Greer, and R. Lasater, 1957
Effective concentration to 50% of test organisms., Water Flea (Ceriodaphnia dubia), neonate, 40.38 MG/L, 48 H, Intoxication,, Water temperature: 23.00 C (73.4 F) C; Toxicity of Laundry Detergent Components to a Freshwater Cladoceran and Their Contribution to Detergent Toxicity, Warne, M.S.J., and A.D. Schifko, 1999
LC50, Bony Fishes (Osteichthyes), 33000. - 100000. UG/L, 48 H, Mortality, Water temperature: 15.00 C (59.0 F) C; The Toxicity of 140 Substances to the Brown Shrimp and Other Marine Animals, Portmann, J.E., and K.W. Wilson, 1971
CAS# 2634-33-5: 1,2-Benzisothiazol-3(2H)-one: LC50, Sheepshead Minnow (Cyprinodon variegatus), 16.00 PPM, 96 H, Mortality; Pesticide Ecotoxicity Database (Formerly: Environmental Effects Database (EEDB)), Office of Pesticide Programs, 2000
LC50, Opossum Shrimp (Americamysis bahia), 1.400 PPM, 96 H, Mortality; Pesticide

Ecotoxicity Database (Formerly: Environmental Effects Database (EEDB)), Office of Pesticide Programs, 2000
LC50, Bleak (Alburnus alburnus), 10000. UG/L, 96 H, Mortality, Water temperature: 10.00 C (50.0 F) C, pH: 7.80; The Acute Toxicity of 78 Chemicals and Pesticide Formulations Against Two Brackish Water Organisms, the Bleak (Alburnus alburnus) and the Harpacticoid Nitocra spinipes, Linden, E., B.E. Bengtsson, O. Svanberg, and G. Sundstrom, 1979
LC50, Harpacticoid Copepod (Nitocra spinipes), adult(s), 25000. UG/L, 96 H, Mortality, Water temperature: 21.00 C (69.8 F) C, pH: 7.80; The Acute Toxicity of 78 Chemicals and Pesticide Formulations Against Two Brackish Water Organisms, the Bleak (Alburnus alburnus) and the Harpacticoid Nitocra spinipes, Linden, E., B.E. Bengtsson, O. Svanberg, and G. Sundstrom, 1979
LC50, Water Flea (Ceriodaphnia dubia), 10.00 - 20.00 MG/L, 48 H, Mortality, Water temperature: 25.60 C (78.1 F) - 26.80 C (80.2 F) C, pH: 8.50, Hardness: 104.00 MG/L; The Response of the Three Brood Ceriodaphnia Test to Fifteen Formulations and Pure Compounds in Common Use, Cowgill, U.M., and D.P. Milazzo, 1991
LC50, Water Flea (Ceriodaphnia dubia), 10.00 - 20.00 MG/L, Mortality, Water temperature: 25.60 C (78.1 F) - 26.80 C (80.2 F) C, pH: 8.50, Hardness: 104.00 MG/L; The Response of the Three Brood Ceriodaphnia Test to Fifteen Formulations and Pure Compounds in Common Use, Cowgill, U.M., and D.P. Milazzo, 1991

Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted. No information available.

Persistence and Degradability: The methods for determining the biological degradability are not applicable to inorganic substances. No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Product:
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Contaminated packaging: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

14. TRANSPORT INFORMATION

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Sodium hydroxide solution.
DOT Hazard Class: 8 CORROSIVE
UN/NA Number: UN1824 **Packing Group:** III

LAND TRANSPORT (Canadian TDG):

TDG Shipping Name: No information available.

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Sodium hydroxide solution.

15. REGULATORY INFORMATION

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
1310-73-2	Sodium hydroxide	No	Yes 1000 LB	No
2634-33-5	1,2-Benzisothiazol-3(2H)-one	No	No	No
7732-18-5	Water	No	No	No
25265-71-8	Dipropylene glycol	No	No	No

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
1310-73-2	Sodium hydroxide	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; FIFRA: Yes - Active - 103901: Unspecified, Inert: F/NF; FDA/DEA CSA: No; CA PROP.65: No; MA Oil/HazMat: Yes; MI CMR, Part 5: Part 5; NJ EHS: No; PA HSL: Yes - E
2634-33-5	1,2-Benzisothiazol-3(2H)-one	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; FIFRA: Yes - Active - 098901: Am, Inert: F/NF; FDA/DEA CSA: No; CA PROP.65: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; PA HSL: No
7732-18-5	Water	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; FIFRA: Yes - Inert: F/NF/Fr; FDA/DEA CSA: No; CA PROP.65: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; PA HSL: No
25265-71-8	Dipropylene glycol	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory, 8A PAIR, 8D TERM; FIFRA: Yes - Active - 068604: Am/CC, Inert: F/NF/Fr; FDA/DEA CSA: No; CA PROP.65: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; PA HSL: Yes - 1

CAS #	Hazardous Components (Chemical Name)	International Regulatory Lists
1310-73-2	Sodium hydroxide	Canadian DSL: Yes; Canadian NDSL: No
2634-33-5	1,2-Benzisothiazol-3(2H)-one	Canadian DSL: Yes; Canadian NDSL: No
7732-18-5	Water	Canadian DSL: Yes; Canadian NDSL: No
25265-71-8	Dipropylene glycol	Canadian DSL: Yes; Canadian NDSL: No

16. OTHER INFORMATION

Revision Date: 04/12/2017

Additional Information About This Product:

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