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**SECTION 1: COMPANY AND PRODUCT INFORMATION**

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**1.1 Product identifiers**

Product name : Sodium hydroxide (pellets)  
Product code : 41900088  
CAS number : 1310-73-2  
Synonyms : CAUSTIC SODA  
HYDROXYDE DE SODIUM (FRENCH)  
LEWIS-RED DEVIL  
LYE  
NATRIUMHYDROXID (GERMAN)  
NATRIUMHYDROXYDE (DUTCH) SODA LYE \* SODIO(IDROSSIDO DI) (ITALIAN) \*  
SODIUM HYDRATE \* SODIUM(HYDROXYDE DE) (FRENCH) \* UN1823 (DOT)  
\*WHITE CAUSTIC \*

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses : For further manufacturing use only. not for human or animal drug use.

**1.3 Details of the supplier of the safety data sheet**

Address : 4150 Tuller Rd.  
Suite 228  
Dublin, OH 43017  
Email : tech@bio-world.com  
Phone : 614-792-8680, Toll free: 1-888-bio-PLUS  
Fax : 614-792-8685

**1.4 Emergency telephone number**

Emergency phone : 1-888-bio-PLUS

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**SECTION 2: HAZARDS IDENTIFICATION**

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**2.1 Classification of substance or mixture**

Acute toxicity - Dermal Category 4.  
Skin corrosion/irritation Category 1 Sub-category A.  
Serious eye damage/eye irritation Category 1.

**2.2 GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Acute toxicity - Dermal Category 4.  
Skin corrosion/irritation Category 1 Sub-category A.  
Serious eye damage/eye irritation Category 1.

**2.3 Label elements and precautionary statements**

Pictogram : 

Signal word : Danger

Hazard statement(s) : H314 - Causes severe skin burns and eye damage.  
H402 - Harmful to aquatic life.  
H301 - Toxic if swallowed.

Precautionary statement(s) : 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 CENTRE or doctor/physician.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P302+ P352 - IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

## 2.4 Hazards not otherwise classified (HNOC) or not covered by GHS

None

## 2.5 NFPA Rating

Health hazard : 3

Fire hazard : 1

Reactivity hazard : 0

## 2.6 HMIS Rating

Health hazard : 3

Chronic health hazard : 0

Reactivity hazard : 0

Flammability : 1

Physical hazard : 0

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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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### 3.1 Substances

Substance	CAS#	EC#	Concentration
Sodium Hydroxide M.F: NaOH M.W: 40.00g/mol	1310-73-2	215-185-5	<=100%

### 3.2 Hazardous components & classification

Not available

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## SECTION 4: FIRST AID MEASURES

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### 4.1 Description of first aid measures

#### In case of inhalation

Move to fresh air. If breathing becomes difficult, give oxygen.

#### In case of skin contact

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### In case of ingestion

Clean mouth with water and afterwards drink plenty of water.

#### 4.2 Most important symptoms and effects, both acute and delayed

Not available

#### 4.3 Indication of any immediate medical attention and special treatment needed

Not available

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### SECTION 5: FIREFIGHTING MEASURES

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#### 5.1 Suitable extinguishing media

Use extinguishing media appropriate to surrounding fire conditions.

#### 5.2 Unsuitable extinguishing media

Not available

#### 5.3 Special hazards arising from the substance

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes.

#### 5.4 Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

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### SECTION 6: ACCIDENTAL RELEASE MEASURES

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#### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothing. Use personal protective equipment. Ensure adequate ventilation.  
**For personal protection see section 8**

#### 6.2 Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional Ecological Information.

#### 6.3 Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so.  
**For proper disposal see section 13**

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### SECTION 7: HANDLING AND STORAGE

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#### 7.1 Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Hygroscopic. Protect from moisture.  
**For precautions see section 2**

#### 7.2 Conditions for safe storage, including any incompatibilities

Storage conditions : Keep containers tightly closed in a dry, cool and well-ventilated place. Hygroscopic. Protect from moisture

Incompatible materials : Strong oxidizing agents. Strong acids. Organic materials. Chlorinated solvents. Absorbs CO<sub>2</sub> from air.

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### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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#### 8.1 Control parameters

Chemical Name -Sodium hydroxide ACGIH TLV-Ceiling: 2 mg/m<sup>3</sup> OSHA PEL-TWA: 2 mg/m<sup>3</sup> NIOSH IDLH-IDLH: 10 mg/m<sup>3</sup>,Ceiling: 2 mg/m<sup>3</sup>

## 8.2 Engineering controls

Showers, Eyewash stations, Ventilation systems

## 8.3 Personal protective equipment

Eye/face protection : Tightly fitting safety goggles.

Skin protection : Wear protective gloves/clothing.

Body protection : Wear protective gloves/clothing.

Respiratory protection : If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

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

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

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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### 9.1 Information on basic physical and chemical properties

- a) Appearance : Pellets
- b) Physical states : Solid
- c) Odor : odourless
- d) Odor threshold : Not available
- e) Melting point : 318 °C
- f) Boiling point range : 1.390 °C
- g) pH : 13-14
- h) Density : 2.13 g/cm<sup>3</sup>
- i) Flash point : 200 °C CC (closed cup)
- j) Evaporation rate : Not available
- k) Flammability : Not available
- l) Upper/lower flammability or explosive limits: : Not available
- m) Vapor pressure : 18
- n) Vapor density : 1.38
- o) Relative density : Not available
- p) Water solubility : 18% in water
- q) Partition coefficient:n-octanol/water : Not available
- r) Autoignition temperature : Not available

- s) Decomposition temperature : Not available
- t) Kinematic viscosity : Not available
- u) Explosive properties : Not available
- v) Oxidizing properties : Not available
- w) Solubility in other solvents : Not available
- x) Surface tension : Not available

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## SECTION 10: STABILITY AND REACTIVITY

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### 10.1 Reactivity

Not available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Stability note(s)

Not available

### 10.4 Polymerization

Not available

### 10.5 Possibility of hazardous reactions

Not available

### 10.6 Incompatible materials

Strong oxidizing agents. Strong acids. Organic materials. Chlorinated solvents. Absorbs CO<sub>2</sub> from air.

### 10.7 Hazardous decomposition products

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

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## SECTION 11: TOXICOLOGICAL INFORMATION

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### 11.1 Acute toxicity

LD50 Oral : Not available

LD50 Dermal : Not available

LC50 Inhalation : Not available

### 11.2 Skin corrosion/irritation

Not available

### 11.3 Serious eye damage/eye irritation

Not available

### 11.4 Respiratory or skin sensitization

Not available

### 11.5 Germ cell mutagenicity

Not available

### 11.6 Carcinogenicity

IARC : Not available

ACGIH : Not available

NTP : Not available

OSHA : Not available

**11.7 Reproductive toxicity**

Not available

**11.8 Specific target organ toxicity – single exposure**

Not available

**11.9 Specific target organ toxicity – repeated exposure**

Not available

**11.10 Aspiration hazard**

Not available

**11.11 Additional Information**

Not available

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**SECTION 12: ECOLOGICAL INFORMATION**

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**12.1 Toxicity**

Not available

**12.2 Aquatic toxicity**

Not available

**12.3 Persistence and degradability**

Not available

**12.4 Bioaccumulative potential**

Not available

**12.5 Mobility in soil**

Not available

**12.6 Results of PBT and vPvB assessment**

Not available

**12.7 Other adverse effect**

Not available

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**SECTION 13: DISPOSAL CONSIDERATIONS**

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**13.1 Product**

Dispose of material in accordance with all federal, state, and local regulations.

**13.2 Packaging**

Dispose of in accordance with all federal, state and local regulations

**13.3 Recommendation**

Not available

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**SECTION 14: TRANSPORTATION INFORMATION**

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**14.1 DOT (US)**

Proper Shipping Name :SODIUM HYDROXIDE,SOLID  
Hazard Class:8  
UN-No:1823  
Packing Group: II

#### 14.2 IMDG

Not available

#### 14.3 IATA

UN-No:1823  
Proper Shipping Name :SODIUM HYDROXIDE,SOLID  
Hazard Class:8  
Packing Group II

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### SECTION 15: REGULATORY INFORMATION

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#### 15.1 SARA

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard: Yes

Chronic Health Hazard: No

Fire Hazard: No

Sudden Release of Pressure Hazard: No

Reactive Hazard: No

#### 15.2 Clean water act (CWA)

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 Sodium hydroxide 1310-73-2 ( 95-100 )

CWA - ReportableQuantities 1000 lb

CWA - Toxic Pollutants

CWA - Priority Pollutants

CWA - Hazardous Substances X

#### 15.3 Right to know components

Massachusetts : Not available

Pennsylvania : Not available

New Jersey : Not available

California proposition : This product does not contain any Proposition 65 chemicals  
65 components

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### SECTION 16: OTHER INFORMATION

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#### 16.1 Disclaimer

This product is offered by bioWORLD for research, laboratory or further manufacturing use. Not for human use or consumption. The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchant-ability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall bio-WORLD.com be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if bio-WORLD.com has been advised of the possibility of such damages.

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## **16.2 Preparation Information**

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