



MATERIAL SAFETY DATA SHEET

Catalog No.: 100263 **Effective date:** March 2004
Product Id.: Base Wash Solution
Manufactured by: **Microgenics**
46360 Fremont Boulevard
Fremont, CA 94538 USA

SECTION 2- COMPOSITION, INFORMATION ON INGREDIENTS

The hazards identified with this product are those identified below.

MSDS Name: **Sodium Hydroxide**
Hazardous Ingredient: Sodium Hydroxide % 7.4 – 20.4 **Chemical Formula:** NaOH
CAS Number: 1310-73-2, Molecular Weight: 39.9962 **Hazard Symbol:** C
Synonyms: **Risk Phrases:** 35
EINECS #: 215-185-5

PRECAUTIONARY INFORMATION
WARNING! HARMFUL IF SWALLOWED.
Wash thoroughly after handling.

SECTION 3 – EMERGENCY OVERVIEW

Appearance: Clear, colorless liquid **DANGER! Corrosive**
Causes eye and skin burns. Causes severe digestive and respiratory tract burns.
Target Organ: None

Potential Health Effects:

Eye & Skin: Causes severe eye burns. Causes skin burns. May cause deep penetrating ulcers of the skin.
Ingestion: Causes gastrointestinal tract burns. Causes severe pain, nausea, vomiting, diarrhea, and shock.
Inhalation: Irritation may lead to chemical pneumonitis and pulmonary edema. Causes severe irritation of upper respiratory tract with coughing, burns, breathing difficulty, and possible coma.
Chronic: Prolonged or repeated skin contact may cause dermatitis.

SECTION 4 – FIRST AID MEASURES

Eye & Skin: Get medical aid immediately. DO NOT allow victim to rub or keep eyes closed. Extensive irrigation is required (at least 30 minutes). Immediately flush skin with plenty of soap and water for at least 15 minutes, while removing contaminated clothing and shoes. Discard contaminated clothing in a manner, which limits further exposure.
Ingestion: DO NOT induce vomiting. If victim is conscious and alert, give 2 to 4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.
Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. DO NOT use mouth-to-mouth respiration.
Note: TO PHYSICIAN- Treat symptomatically and supportively.

SECTION 5 – FIRE FIGHTING MEASURES

Fire: Non- combustible **NFPA Rating:** Not published
Explosion Limits: Not Applicable **Flash point:** Not Applicable, water disolvable
Fire Extinguishing Media: Use carbon dioxide or dry chemical **Autoignition Temperature:** Not Applicable
General Information: Wear appropriate clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products. Use water with caution and in flooding amounts.



SECTION 6 – Accidental Release Measures

General Information: Use proper personal protective equipment indicated in section 8.

Spills & Leaks: Absorb spill with inert material, (e.g., dry sand or earth), then place into a chemical waste container. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

SECTION 7 – Handling & Storage

Handling: Wash thoroughly after handling. Use with adequate ventilation. Do not get in eyes, on skin or on clothing. Do not ingest or inhale.

Storage: Store in cool, dry, well-ventilated area away from incompatible substances. Keep away from strong acids. Keep away from metals. Keep away from flammable liquids. Keep away from organic halogens.

SECTION 8 – Exposure Controls, Personal Protection

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

<u>CHEMICAL NAME</u>	<u>ACGIH</u>	<u>NIOSH</u>	<u>OSHA – Final PELs</u>
Sodium Hydroxide	c 2 mg/m ³	10 mg/m ³ IDLH	2 mg/m ³ TWA

OSHA Vacated PELs: Sodium Hydroxide – No OSHA Vacated PELs are listed for this chemical

Personal Protective Equipment:

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149 approved respirator when necessary.

SECTION 9 – Physical and Chemical Properties

Appearance:	Clear, colorless liquid, slight odor	Solubility:	Completely soluble in water
Boiling Point:	Not Available	Specific Gravity:	1.1 – 1.2
Evaporation Rate:	Not Available	Vapor Density:	Not Available
Melting Point:	Not Available	Vapor Pressure:	Not Available
Odor:	None reported	Viscosity:	Not Available
pH:	Alkaline	Decomposition Temp:	Not Available

SECTION 10 Stability & Reactivity

Chemical Stability: Stable under normal temperature and pressures.

Conditions to Avoid: Incompatible materials, contact with water, metals, attacks some plastics, rubber, and coating.

Incompatible with Other Metals: Reacts with mineral acids to form corresponding salts; reacts with weak acid gases like hydrogen sulfide, sulfur dioxide, and carbon dioxide, ignites when in contact with cinnamaldehyde or zinc; and reacts explosively with a mixture of chloroform and methane. Corrosive to metals such as aluminum, tin, and zinc as well as to alloys such as steel, and may cause formation of flammable hydrogen gas.

Hazardous Decomposition Products: Toxic fumes of sodium oxide, sodium peroxide fumes.

Hazardous Polymerization: None reported

SECTION 11 – Toxicology Information

RTECS #:	CAS # 1310-73-1 WB4900000	LD50/LC50:	Not listed
Carcinogenicity:	Not listed	Epidemiology:	No information reported
Teratogenicity:	No information reported	Reproductive effects:	No information reported
Neurotoxicity:	No information reported	Mutagenicity:	No information reported
Other studies:	No information reported		



SECTION 12 – Ecological Information

Ecotoxicity: TLm, mosquito fish, 125 ppm/96 hr. (fresh water); TLm, bluegill, 99 mg/48 hr. (tap water)
Environment Fate: Once liquid, sodium hydroxide leaches rapidly into the soil.
Physical/Chemical: No information found

SECTION 13 – Disposal Considerations

RCRA D-Series Maximum concentration of contaminants: None listed
RCRA D-Series Chronic Toxicity Reference Levels: None
RCRA F-Series, RCRA P-Series, RCRA U-Series: None listed
Dispose of in a manner consistent with federal, state, and local regulations.

SECTION 14 – Transport Information

US DOT: Shipping Name: Sodium Hydroxide Solution **Hazard Class:** 8 **UN Number:** UN1824
Packing Group: II

IMO/IATA: No information found
RID/ADR: No information found

Canada TDG: Shipping Name: Sodium Hydroxide Solution **Hazard Class:** 8(9.2) **UN Number:** UN1824

Carcinogenicity: Not listed **Epidemiology:** No information reported

SECTION 15 – Regulatory Information

US FEDERAL

TSCA: CAS # 1310-73-2 is listed on the TSCA inventory
Health & Safety Reporting List: None of the chemicals are on the Health and Safety Reporting List.
Chemical Test Rules: None of the chemicals in this product are under a chemical test rule.
Section 12 b: None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule: None of the chemicals in this material have a SNUR under TSCA.

SARA: CAS # 1310-73-2
Section 302 (RQ): Final RQ = 1000 pounds (454kg)
Section 302 (TPQ): None of the chemicals in this product have TPQ.
Sara codes CAS # 1310-73-2: Acute, reactive, Section 313 No chemicals are reportable under Section 313.
TSCA Significant New Use Rule: None of the chemicals in this material have a SNUR under TSCA.

Clean Air Act:
Hazardous Air Pollutants: This material does not contain any of these
Class 1 Ozone depleters: This material does not contain any of these
Class 2 Ozone depleters: This material does not contain any of these

Clean Water Act:
CAS # 1310-73-2: is listed as a Hazardous Substance under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

Sodium Hydroxide can be found in the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts. Water is not present on state lists from CA, PA, MN, MA, FL, or NJ. California No Significant Risk Level: None of the chemicals in this product are listed.



EUROPEAN/INTERNATIONAL REGULATIONS

European Labeling in Accordance with EC Directives

Safety Phrases:

Hazard Symbol: C

Risk Phrases: R 35 Causes severe burns

S 2 Keep out of reach of children. S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 37/39 Wear suitable gloves and eye/face protection.

WGK (Water Danger/Protection)

CAS # 1310-73-2:1

Canada

CAS # 1310-73-2 is listed on Canada's DSL/NDSL List.

This product has a WHMIS classification of E.

CAS # 1310-73-2 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS # 1310-73-2:

OEL-DENMARK:TWA 2 mg/m3

OEL GERMANY:TWA 2 mg/m3

OEL PHILIPPINES:TWA 2 mg/m3

OEL THAILAND:TWA 2 mg/m3

OEL in Bulgaria, Colombia, Jordan, Korea check ACGIH TLV

OEL in New Zealand, Singapore, Vietnam check ACGI TLV

OEL AUSTRALIA:TWA 2 mg/m3

OEL FINLAND:TWA 2 mg/m3

OEL JAPAN:STEL 2 mg/m3

OEL SWEDEN:TWA 2 mg/m3

OEL TURKEY:TWA 2 mg/m3

OEL-BELGIUM-STEL 2 mg/m3

OEL FRANCE:TWA 2 mg/m3

NDS:TWA 2 mg/m3

OEL SWITZERLAND:TWA 2 mg/m3; STEL 4 mg/m3

OEL UNITED KINGDOM:TWA 2 mg/m3; STEL 2 mg/m3

SECTION 16 – Additional Information

MSDS Creation Date: 3/22/04

Revision #: 0

The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, Microgenics makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for a particular purpose. Accordingly, Microgenics will not be responsible for damages of any kind resulting from the use of or reliance upon such information. NO REPRESENTATIONS, OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OR MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR TO THE PRODUCT TO WHICH THE INFORMATION REFERS.