MSDS No: M00588

World Headquarters Hach Company P.O.Box 389 Loveland, CO USA 80539 (970) 669 -3050

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE **COMPANY/UNDERTAKING**

Product Name: Sodium Hydroxide 0,3636 ± 0,0020 N Catalo g Number: 1437801

HACH LANGE GmbH Willstätterstrasse 11 40549 Düsseldorf, Germany +49-(0)211 -52880

Emergency Telephone Numbers: (Poison Information Center Main) (+49 (0) 6131 19240) 24 HR

SDS Number: M00588 Chemical Name: Not applicable Chemical Formula: Not applicable Chemical Family: Not applicable *Use of the substance/preparation:* Standard solution CAS No.: Not applicable Hazard: Causes burns. Date of MSDS Preparation: Day: 12 Month: 01 Year: 2006 Additional Emergency Response Numbers: Austria: +49 (0)6131 19240, Belgium: +32 -(0)70 -245245, France: +33 (0)1-40370404, Italy: +39 -0266101029, Netherlands: +31 -(0)30 -2748888, Switzerland: +41 -(0)1 -2515151

2. COMPOSITION / INFORMATION ON INGREDIENTS

Sodium Hydroxide

EEC Number: 2151855 CAS No.: 13107-32 **Percent Range:** 0,5 - 3,0 Percent Range Units: weight / volume C - CORROSIVE Ingredient EEC Symbol: Ingredient R phrase(s) (R phrase details given in Heading 16): R 35 **TLV:** 2 mg/m³ **PEL:** 2 mg/m³ EU Occupational Exposure Limits: 2 mg/m^3

Demineralized Water

EEC Number: 2317912 CAS No.: 7732185 Percent Range: >95,0 Percent Range Units: volume / volume Ingredient EEC Symbol: Not applicable Ingredient R phrase(s) (R phrase details given in Heading 16): TLV: Not established **PEL:** Not established EU Occupational Exposure Limits: Not established

Not applicable

3. HAZARDS IDENTIFICATION

Emergency Overview:

Appearance:Clear, colorless liquidOdor:OdorlessEU Symbols:Xi - IRRITATINGR PHRASES:R 36/38: Irritating to eyes and skin.

Protective Equipment : **Potential Health Effects:** Eye Contact (EC): Causes irritation Skin Contact (EC): Causes irritation Skin Absorption (EC): None Reported Target Organs (SA E): None Reported Ingestion (EC): May cause: burns of the mouth and esophagus v omiting rapid pulse and respirations shock collapse Target Organs (Ing E): None Reported Inhalation: May cause: respiratory tract irritation Target Organs (Inh E): None Reported Medical Conditions Aggravated: Pre -existing: Eye conditio ns Skin conditions Chronic Effects: None reported Cancer / Reproductive Toxicity Information: This product does NOT contain any IARC listed chemicals.

Additional Cancer / Reproductive Toxicity Information: None reported Toxicologically Synergistic Products: None reported

4. FIRST AID MEASURES

Eye Contact: Immediately flush eyes with water for 15 minutes. Call physician. *Skin Contact (First Aid):* Wash skin with plenty of vater for 15 minutes. Call physician immediately. Remove contaminated clothing. *Ingestion (First Aid):* Do not induce vomiting. Give 1 -2 glasses of water. Call physician immediately. Never give anything by mouth to an unconscious person. *Inhalat ion:* Remove to fresh air.

5. FIRE FIGHTING MEASURES

 Flammable Properties:
 Material will not burn.

 Hazardous Combustion Products:
 This material will not burn.

 Fire / Explosion Hazards:
 May react violently with: acids

 Static Discharge:
 None reported.

 Mechanical Impact:
 None reported

 Extinguishing Media:
 Use media appropriate to surrounding fire conditions

 Extinguishing Media NOT To Be Used:
 Not applicable

 Fire Fighting In struction:
 As in any fire, wear self
 -contained breathing apparatus pressure
 -demand and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Spill Response Notice:

Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

Containment Technique: Absorb spilled liquid with non -reactive sorbent material. Stop spilled material from being released to the environment.

Clean -up Technique: Cover spilled material with a dry acid, such as citric or boric. Scoop up slurry into a large beaker. Dilute with a large excess of water. Adjust to a pH between 6 and 9 with an ac id, such as sulfuric or citric. Flush reacted material to the drain with a large excess of water. Decontaminate the area of the spill with a soap solution.

Evacuation Procedure: Evacuate local area (15 foot radius or as directed by your facility's emergency response plan) when: any quantity is spilled. If conditions warrant, increase the size of the evacuation.

7. HANDLING AND STORAGE

 Handling:
 Avoid contact with eyes skin clothing Do not breathe mist or vapors. Wash thoroughly after handling.

 Maintain general industrial hygiene practices when using this product.
 Storage:

 Storage:
 Protect from: heat Keep away from: acids

 Speci al Packaging Instructions:
 Not applicable

 Use of the substance/preparation:
 Standard solution

8. EXPOSURE CONTROLS / PROTECTIVE EQUIPMENT

Engineering Controls: Have a safety shower nearby. Have an eyewas h station nearby. Maintain general industrial hygiene practices when using this product. Personal Protective Equipment: chemical splash goggles Eve Protection: Skin / Hand Protection: disposable latex gloves lab coat Inhalation Protection: adequate ventilation Precautionary Measures: Avoid contact with: eyes skin clothing Do not breathe: mist/vapor Wash thoroughly after handling. Protect from: heat Keep away from: acids/acid fumes TLV: Not established PEL: Not established EU Occupational Exposure Limits: Not established

9. PHYSICAL / CHEMICAL PROPERTIES

Appearance: Clear, colorless liquid Physical State: Liquid Odor: Odorless **pH**: 13,5 Vapor Pressure: Not available *Vapor Density (air = 1):* Not available Boiling Point: 100°C; 212°F Melting Point: Not available Flash Point: Not applicable Method: Not applicable Autoignition Temperature: Not applicable Flammability Limits: Lower Explosion Limits: Not applicable Upper Explosion Limits: Not applicable Specific Gravity (water = 1): 1,0 *Evaporation Rate (water = 1):* 0.41 Volatile Organic Compounds Content: Not applicable Partition Coefficient (n -octanol / water): Not applicable Solubility: Water: Miscible Acid: Miscible Other: Not determined Metal Corrosivity: Steel: 0,00 in/yr Aluminum: 4,5 in/yr

10. STABILITY / REACTIVITY

Chemical Stability:Stable when stored under proper conditions.Conditions to Avoid:Heat EvaporationReactivity / Incompatibility:May react violently in contact with: strong acidsHazardous Decomposition:No hazardous decomposition products known.Hazardous Polymerization:Will not occur.

11. TOXICOLOGICAL INFORMATION

Product Toxicological Data: LD50: None reported LC50: None reported Dermal Toxicity Data: None reported Skin and Eye Irritation Data: None reported Mutation Data: None reporte d Reproductive Effects Data: None reported

Ingredient Toxicological Data: Sodium Hydroxide: Oral rabbit LDLo = 500 mg/kg

This product does NOT contain any IARC listed chemicals.

12. ECOLOGICAL IN FORMATION

 Product Ecological Information:
 -

 No ecological data available for this product.

 Ingredient Ecological Information:
 -

 No ecological data available for the ingredients of this product.

13. DISP OSAL CONSIDERATIONS

NOTICE (Disposal): These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information. In Europe: Chemical and analysis solutions must be disposed of in compliance with the respective national regulations. Product packaging must be disposed of in compliance with the country -specific regulations or must be pass ed to a packaging return system.

14. TRANSPORT INFORMATION

I.C.A.O.: I.C.A.O. Proper Shipping Name: Sodium Hydroxide Solution ICAO Hazard Class: 8 ICAO Subsidiary Risk: NA ICAO UN/ID Number: UN1824 ICAO Packing Group: II I.M.O.: I.M.O. Proper Shipping Name: Sodium Hydroxide Solution I.M.O. Hazard Class: 8 I.M.O. Subsidiary Risk: NA I.M.O. UN Number: UN1824 I.M.O. Packing Group: II A.D.R.: A.D.R. Proper Shipping Name: Sodium Hydroxide Solution A.D.R Hazard Class: 8 A.D.R. Subsidiary Risk: NA A.D.R. UN -Number:: 1824 A.D.R. Packing Group: II Additional Information: This product may be shipped as part of a chemical kit composed of various compatible dangerous goods for analytical or testing purposes. This kit would have the following classification: Proper Shipping

Hazard Class: 9

15. REGULATORY INFORMATION

Name: Chemical Kit

 National Inventories:

 EEC Inventory Status:
 All ingredients used to make this product are listed on EINECS / ELINCS.

 EEC Number:
 Not applicable

 EEC LABEL COPY:
 EU Symbols:

 Xi - IRRITATING
 R PHRASES:

 R 36/38:
 Irritating to eyes and skin.

UN Number 3316

S PHRASES: 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.

16. OTHER INFORMATION

References:29 CF R 1900 - 1910 (Code of Federal Regulations- Labor). Air Contaminants, Federal Register, Vol. 54,No. 12.Thursday, January 19, 1989. pp. 2332-2983. TLV's Threshold Limit Values and Biological Exposure Indices for1992 -1993.American Conference of Governmental Industrial Hygienists, 1992. In-house information. TechnicalJudgment.Sax, N. Irving.Dangerous Properties of Industrial Materials, 7th Ed. New York: Van Nostrand Reinhold Co.,1989.R PHRASES:R 36/38: Irritating to eyes and skin.

Use of the substance/preparation: Standard solution Revision Summary: Updates in Section(s) 14,

Legend:

NA - Not Applicable	w/w - weight/weight
ND - Not Determined	w/v - weight/volume
NV - Not Available	v/v - volume/volume

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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