

World Headquarters
Hach Company
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MSDS No: M00648

SAFETY DATA SHEET

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

Product Name: Sodium Hydroxide Standard Solution 0,01 N
Catalog Number: 67132

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: M00648

Chemical Name: Not applicable

Chemical Formula: Not applicable

Chemical Family: Not applicable

Use of the substance/preparation: Determination of carbon dioxide

CAS No.: Not applicable

Hazard: Causes eye burns.

Date of MSDS Preparation:

Day: 31

Month: May

Year: 2006

Additional Emergency Response Numbers: Austria: +49 (0)6131 19240, Belgium: +32 -(0)70 -245245,
France: +33 -(0)1 -40370404, Italy: +39 -02-66101029, Netherlands: +31 1-(0)30 -2748888, Switzerland: +41 -
(0)1 -2515151

2. COMPOSITION / INFORMATION ON INGREDIENTS

Sodium Hydroxide

EEC Number: 2151855

CAS No.: 1310-73-2

Percent Range: < 1,0

Percent Range Units: weight / volume

Ingredient EEC Symbol: C - CORROSIVE

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/m³

Demineralized Water

EEC Number: 2317912

CAS No.: 7732-18-5

Percent Range: 90,0 - 100,0

Percent Range Units: volume / volume

Ingredient EEC Symbol: Not applicable

Ingredient R phrase(s) (R phrase details given in Heading 16): Not applicable

TLV: Not established

PEL: Not established
EU Occupational Exposure Limits: Not established

Isopropanol

EEC Number: 2006617
CAS No.: 67-63-0
Percent Range: 1,0 - 10,0
Percent Range Units: volume / volume
Ingredient EEC Symbol: Not applicable
Ingredient R phrase(s) (R phrase details given in Heading 16): Not applicable
TLV: 400 ppm (500 ppm STEL)
PEL: 400 ppm
EU Occupational Exposure Limits: 200 ppm (500 mg/m³)

3. HAZARDS IDENTIFICATION

Emergency Overview:

Appearance: Clear, colorless liquid
Odor: None
EU Symbols: Not applicable
R PHRASES: Not applicable

Protective Equipment:

Potential Health Effects:

Eye Contact (EC): May cause irritation
Skin Contact (EC): None reported
Skin Absorption (EC): Will be absorbed through the skin. No effects anticipated
Target Organs (SA E): None Reported
Ingestion (EC): May cause: abdominal cramps nausea
Target Organ s (Ing E): None Reported
Inhalation: No effects anticipated
Target Organs (Inh E): Not applicable
Medical Conditions Aggravated: Pre -existing: Eye conditions Skin conditions
Chronic Effects: None reported
Cancer / Reproductive Toxicity Information:
This product does NOT contain any IARC listed chemicals.

Additional Cancer / Reproductive Toxicity Information: Contains: an experimental teratogen.
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 water for 15 minutes. Remove contaminated clothing. Call physician immediately.
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.
Inhalation: None required.

5. FIRE FIGHTING MEASURES

Flammable Properties: Combustible Liquid
Hazardous Combustion Products: Toxic fumes of: sodium oxides carbon monoxide, carbon dioxide.
Fire / Explosion Hazards: Combustible liquid Do not expose to flames.

Static Discharge: None reported.
Mechanical Impact: None reported
Extinguishing Media: Water. Carbon dioxide Dry chemical.
Extinguishing Media NOT To Be Used: Not applicable Not applicable Not applicable
Fire Fighting Instruction: 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: Releases of this material may contaminate the environment. Absorb spilled liquid with non-reactive sorbent material. Stop spilled material from being released to the environment. Dike the spill to contain material for later disposal.

Clean-up Technique: Cover spilled material with a dry acid, such as citric or boric. Scoop up slurry into a large beaker. Adjust to a pH between 6 and 9 with an acid, 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 weak acid 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 Wash thoroughly after handling. Maintain general industrial hygiene practices when using this product. 1

Storage: Keep container tightly closed when not in use. Keep away from: sparks, flames and other ignition sources Protect from: acids

Special Packaging Instructions: Not applicable

Use of the substance/preparation: Determination of carbon dioxide

8. EXPOSURE CONTROLS / PROTECTIVE EQUIPMENT

Engineering Controls: Have an eyewash station nearby. Maintain general industrial hygiene practices when using this product.

Personal Protective Equipment:

Eye Protection: safety glasses with top and side shields

Skin / Hand Protection: disposable latex gloves lab coat

Inhalation Protection: adequate ventilation

Precautionary Measures: Avoid contact with: eyes skin clothing Wash thoroughly after handling. Keep away from: sparks, flames and other ignition sources Protect 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: None

pH: 11,7

Vapor Pressure: Not determined

Vapor Density (air = 1): Not determined

Boiling Point: 94°C

Melting Point: Not determined

Flash Point: 56,7°C (134°F)
Method: Closed cup
Autoignition Temperature: Not determined
Flammability Limits:
Lower Explosion Limits: Not determined
Upper Explosion Limits: Not determined
Specific Gravity (water = 1): 0,992
Evaporation Rate (water = 1): Not determined
Volatile Organic Compounds Content: Not determined
Partition Coefficient (n -octanol / water): Not applicable
Solubility:
Water: Soluble
Acid: Soluble
Other: Not determined
Metal Corrosivity:
Steel: 0,00 in/yr
Aluminum: 0,00 in/yr

10. STABILITY / REACTIVITY

Chemical Stability: Stable when stored under proper conditions.
Conditions to Avoid: Contact with heat, sparks, open flames or other ignition sources. Exposure to air. Evaporation
Reactivity / Incompatibility: Incompatible with: strong acids carbon dioxide contamination
Hazardous Decomposition: Toxic fumes of: sodium oxides carbon dioxide carbon monoxide
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 reported
Reproductive Effects Data: Data reported in RTECS for isopropanol
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Ingredient Toxicological Data: Isopropyl Alcohol: Oral rat LD₅₀ = 5045 mg/kg, Oral human LD_{Lo} = 2770 mg/kg

This product does NOT contain any IARC listed chemicals.

12. ECOLOGICAL INFORMATION

Product Ecological Information: --
No ecological data available for this product.
Ingredient Ecological Information: --
No ecological data available for the ingredients of this product.

13. DISPOSAL 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 passed to a packaging return system.

14. TRANSPORT INFORMATION

I.C.A.O.:

I.C.A.O. Proper Shipping Name: Not Currently Regulated

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ICAO Hazard Class: NA

ICAO Subsidiary Risk: NA

ICAO UN/ID Number: NA

ICAO Packing Group: NA

I.M.O.:

I.M.O. Proper Shipping Name: Not Currently Regulated

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I.M.O. Hazard Class: NA

I.M.O. Subsidiary Risk: NA

I.M.O. UN Number: NA

I.M.O. Packing Group: NA

A.D.R.:

A.D.R. Proper Shipping Name: Not Currently Regulated

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A.D.R. Hazard Class: NA

A.D.R. Subsidiary Risk: NA

A.D.R. UN -Number:: NA

A.D.R. Packing Group: NA

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 Name: Chemical Kit Hazard Class: 9 UN Number 3316

15. REGULATORY INFORMATION

National Inventories:

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

EE C Number: Not applicable

EE C LABEL COPY:

EU Symbols: Not applicable

R PHRASES: Not applicable

S PHRASES: Not applicable

16. OTHER INFORMATION

References: 29 CFR 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 for 1992 -1993. American Conference of Governmental Industrial Hygienists, 1992. Technical Judgment. In-house information. Fire Protection Guide on Hazardous Materials, 10th Ed. Quincy, MA: National Fire Protection Fire Protection Guide on Hazardous Materials, 10th Ed. Quincy, MA: National Fire Protection Association, 1991.

R PHRASES: Not applicable

Use of the substance/preparation: Determination of carbon dioxide

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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