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

MSDS No: M00649

SAFETY DATA SHEET

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

Product Name: Phenolphthalein Solution 0 ,1%

Catalog Number: 189736

HACH LANGE GmbH Emergency Telephone Numbers: Willstätterstrasse 11 (Poison Information Center Main)

40549 Düsseldorf, Germany (+49 (0) 6131 19240) 24 HR

+49 -(0)211 -52880

SDS Number: M00649

Chemical Name: Not applicable Chemical Formula: Not applicable Chemical Family: Not applicable

Use of the substance/preparation: Indicator for pH

CAS No.: Not applicable

Hazard: May cause irritation. Experimental carcinogen.

Date of MSDS Preparation:

Day: 02
Month: February
Year: 2007

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 -(0)30 -2748888, Switzerland: +41 -

(0)1 -2515151

2. COMPOSITION / INFORMATION ON INGREDIENTS

Propylene Glycol

EEC Number: 2003380 **CAS No.:** 57-55-6

Percent Range: 90,0 - 100,0

Percent Range Units: weight / weight Ingredient EEC Symbol: Not applicable

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

TLV: Not establishedPEL: Not established

EU Occupational Exposure Limits: Not established

Phenolphthalein

EEC Number: 2010047 **CAS No.**: 77-09-8 **Percent Range:** < 1,0

Percent Range Units: weight / weight
Ingredient EEC Symbol: Xn - HARMFUL

Ingredient R phrase(s) (R phrase details given in Heading 16): R 40

TLV: Not established PEL: Not established

EU Occupational Exposure Limits: 3 mg/m³, Inhalable dust

Other component

EEC Number: Not applicable CAS No.: Not applicable Percent Range: < 1,0

Percent Range Units: weight / weight 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

3. HAZARDS IDENTIFICA TION

Emergency Overview:

Appearance: Clear, colorless liquid

Odor: Mild hydrocarbon

EU Symbols: Xn - HARMFUL

R PHRASES:

Protective Equipment:

Potential Health Effects:

Eye Contact (EC): Causes mild irritation
Skin Contact (EC): Causes mild irritation
Skin Absorption (EC): No effects anticipated
Target Organs (SA E): Not applicable

Ingestion (EC): Very large doses may cause: central nervous system depression kidney damage rapid pulse and respirations convulsions

Target Organs (Ing E): None Reported

Inhalation: No effects anticipated

Target Organs (Inh E): Not applicable

Medical Conditions Aggravated: None reported

Chronic Effects: None reported

Cancer / Reproductive Toxicity Information:

An ingredient of this mixture is: IARC Group 2B: Experimental Carcinogen

Phenolphthalein

Additional Cancer / Reproductive Toxicity Information: Contains: an experimental mutagen.

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. Call physician i firritation develops.

Ingestion (First Aid): Give large quantities of water. Call physician immediately.

Inhalation: Remove to fresh air.

5. FIRE FIGHTING MEASURES

Flammable Properties: Can burn in fire, releasing toxic vapors.

Hazardous Combustion Products: Toxic fumes of: carbon monoxide, carbon dioxide.

Fire / Explosion Hazards: May react violently with: oxidizers

Static Discharge: None reported.

Mechanical Impact: None reported

Extinguishing Media: Carbon dioxide Alcohol foam. Dry chemical. Water.

Extinguishing Media NOT To Be Used: Not applicable Not applicable Not applicable Not applicable

Fire Fighting Instruction: As in any f ire, wear self -contained breathing apparatus pressure -demand and full

protective gear.

6. ACCIDENTAL RELEASE MEASURES

Spill Response Notice:

Only persons properly qualifi ed 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. Dike large spills to keep spilled material from entering sewage and drainage systems or bodies of water.

Clean -up Technique: Absorb spilled liquid with non -reactive sorbent material. Sweep up material. Place material in a plastic bag. Mark bag 'Non -hazardous trash', and dispose of as normal refuse. Decontaminate the area of the spill with a soap solution.

Evacuation Procedure: Evacuate as needed to perform spill clean -up. If conditions warrant, increase the size of the evacuation.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes Wash thoroughly after handling. Maintain general industrial hygiene practices when using this product.

Storage: Protect from: heat Keep away from: oxidizers
Special Packaging Instructions: Not applicable
Use of the substance/preparation: Indicator for pH

8. EXPOSURE CONTROLS / PROTEC TIVE 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
Inhalation Protection: adequate ventilation

Precautionary Measures: Avoid contact with: eyes Wash thoroughly after handling. Protect from: heat

Keep away from: oxidizers *TLV*: Not established *PEL*: Not established

EU Occupational Exposure Limits: Not established

9. PHYSICAL / CHEMICAL PROPERTIES

Appearance: Clear, colorless liquid

Physical State: Liquid
Odor: Mild hydrocarbon

pH: 6,1

Vapor Pressure: Not determined

Vapor Density (air = 1): Not determined

Boiling Point: 188° C (370° F) **Melting Point:** Not determined **Flash Point:** >100° C (>212° F)

Method: Open cup

Autoignition Temperature: 371° C (700° F)

Flammability Limits:

Lower Explosion Limits: 2,6%
Upper Explosion Limits: 12,6%
Specific Gravity (water = 1): 1,032
Evaporation Rate (water = 1): 0,01

Volatile Organic Compounds Content: Not determined Partition Coefficient (n -octanol/water): Not applicable

Solubility:

Water: Soluble Acid: Soluble

Other: Not determined

Metal Corrosivity:

Steel: Not determined Aluminum: Not determined

10. STABILITY / REACTIVITY

Chemical Stability: Stable when stored under proper conditions.

Conditions to Avoid: Extreme temperatures

Reactivity / Incompatibility: May react violently in contact with: oxidizers

Hazardous Decomposition: Heating to decomposition releases toxic fumes of carbon monoxide and carbon

dioxide.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATIO N

Product Toxicological Data:

LD50: None reported *LC50:* None reported

Dermal Toxicity Data: Propylene Glycol: rabbit LD50 = 20,8 g/kg

Skin and Eye Irritation Data: Propylene Glycol: Skin human 500 mg/7D - MILD; Eye rabbit 500 mg/24H

MILD

Mutat ion Data: Propylene Glycol: Cytogenetic analysis, DNA inhibition mouse - subcutaneous - 8000

mg/kg

Reproductive Effects Data: Propylene Glycol: Intraperitoneal mouse TDLo = 100 gm/kg -fetoxicity, post

implantation mortality

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Ingredient Toxicological Data: Propylene Glycol: Oral rat LD50 = 20 g/kg

An ingredient of this mixture is: IARC Group 2B: Experimental Carcinogen

Phenolphthalein

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 env ironmental regulators for more information. In Europe: Chemical and analysis solutions must be disposed of in compliance with the

-specific

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. 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:

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

EEC Number: Not applicable

EEC LABEL COPY:

EU Symbols: Xn - HARMFUL

R PHRASES:

S PHRASES: Not applicable

16. OTHER INFORMATION

References: 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. In -house inf ormation. Technical Judgment.

R PHRASES:

Use of the substance/preparation: Indicator for pH 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 applica ble 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 T HEREOF.

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