

Material Safety Data Sheet

Date Printed: 27/JAN/2005

Date Updated: 07/APR/2004

Version 1.5

According to 91/155/EEC

1 - Product and Company Information

Product Name HYDRANAL WATER STANDARD 10.0 10 x 8 ML
Product Number 34849

Company Sigma-Aldrich Company Ltd.
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United Kingdom

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2 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number
HYDRANAL WATER STANDARD 10.0	None	None	None

Ingredient Name	Percent	CAS #	EC no	Annex I Index Number
PROPYLENE CARBONATE	>= 30 <= 60	108-32-7	203-572-1	607-194-00-1

Symbols: Xi

R-Phrases: 36

Irritating to eyes.

XYLENE, MIXTURE OF ISOMERS	>= 10 <= 30	1330-20-7	215-535-7	601-022-00-9
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Symbols: Xn

R-Phrases: 10 20/21 38

Flammable. Harmful by inhalation and in contact with skin.
Irritating to skin.

1-BUTANOL	>= 10 < 25	71-36-3	200-751-6	603-004-00-6
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Symbols: Xn

R-Phrases: 10 22 37/38 41 67

Flammable. Harmful if swallowed. Irritating to respiratory system
and skin. Risk of serious damage to eyes. Vapors may cause
drowsiness and dizziness.

3 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT
Flammable. Harmful by inhalation and in contact with skin.
Irritating to respiratory system and skin. Risk of serious damage
to eyes. Vapors may cause drowsiness and dizziness.

4 - First Aid Measures

AFTER INHALATION

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

AFTER SKIN CONTACT

In case of contact, immediately wash skin with soap and copious amounts of water.

AFTER EYE CONTACT

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

5 - Fire Fighting Measures

EXTINGUISHING MEDIA

Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

Unsuitable: Water may be effective for cooling, but may not effect extinguishment.

SPECIAL RISKS

Specific Hazard(s): Flammable liquid. Emits toxic fumes under fire conditions. Vapor may travel considerable distance to source of ignition and flash back.

Explosion Hazards: Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions. Forms explosive mixtures in air.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

SPECIFIC METHOD(S) OF FIRE FIGHTING

Use water spray to cool fire-exposed containers.

6 - Accidental Release Measures

PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area. Shut off all sources of ignition. Use nonsparking tools.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

7 - Handling and Storage

HANDLING

Directions for Safe Handling: Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE

Conditions of Storage: Keep tightly closed.

SPECIAL REQUIREMENTS: Handle and store under inert gas.
Hygroscopic.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

Mechanical exhaust required. Safety shower and eye bath. Use nonsparking tools.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Government approved respirator.

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

9 - Physical and Chemical Properties

Appearance	Physical State: Liquid	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	109 °C	760 mmHg
MP/MP Range	N/A	
Flash Point	30 °C	Method: closed cup
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	N/A	
SG/Density	1 g/cm ³	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

10 - Stability and Reactivity

STABILITY

Stable: Stable.

Conditions to Avoid: Moisture.

Materials to Avoid: Oxidizing agents, Alkali metals, Bases, Strong acids, Halogens.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Nature of decomposition products not known.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

11 - Toxicological Information

SIGNS AND SYMPTOMS OF EXPOSURE

Exposure can cause: CNS depression. Dermatitis. Abdominal pain, nausea, vomiting. Anorexia. Dyspnea. Gastrointestinal disturbances. Drying, cracking, or irritation of the skin.

ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.
Skin Absorption: Harmful if absorbed through skin.
Eye Contact: Causes severe eye irritation.
Inhalation: Material is irritating to mucous membranes and upper respiratory tract. Harmful if inhaled.
Ingestion: May be harmful if swallowed.

TARGET ORGAN INFORMATION

Nerves. Liver. Kidneys. Blood. Eyes. Ears. Heart. Bone marrow.

CHRONIC EXPOSURE - CARCINOGEN

Result: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

CHRONIC EXPOSURE - TERATOGEN

Result: Laboratory experiments have shown teratogenic effects.

12 - Ecological Information

No data available.

13 - Disposal Considerations

SUBSTANCE DISPOSAL

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

14 - Transport Information

RID/ADR

UN#: 1993
Class: 3
PG: III
Kemmler Number: 30
Proper Shipping Name: Flammable liquid, n.o.s.

IMDG

UN#: 1993
Class: 3
PG: III
Proper Shipping Name: Flammable liquid, n.o.s.
Marine Pollutant: No
Severe Marine Pollutant: No
Technical Name: Required

IATA

UN#: 1993

Class: 3
PG: III
Proper Shipping Name: Flammable liquid, n.o.s.
Inhalation Packing Group I: No
Technical Name: Required

15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

INDICATION OF DANGER: Xn

Harmful.

R-PHRASES: 10 20/21 37/38 41 67

Flammable. Harmful by inhalation and in contact with skin.
Irritating to respiratory system and skin. Risk of serious
damage to eyes. Vapors may cause drowsiness and dizziness.

S-PHRASES: 26 36/37/39

In case of contact with eyes, rinse immediately with plenty of
water and seek medical advice. Wear suitable protective
clothing, gloves, and eye/face protection.

COUNTRY SPECIFIC INFORMATION

Germany

WGK: 2

16 - Other Information

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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