

## Material Safety Data Sheet

Date Printed: 27/JAN/2005

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Version 1.3

According to 91/155/EEC

## 1 - Product and Company Information

Product Name HYDRANAL WATER STANDARD 0.10 10 x 4 ML  
Product Number 34847

Company Sigma-Aldrich Company Ltd.  
The Old Brickyard  
New Road, Gillingham SP8 4XT  
United Kingdom

Technical Phone # 44-(0)-1747-833000

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## 2 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number
HYDRANAL-WATER STANDARD 0.10	None	None	601-022-00-9

Ingredient Name	Percent	CAS #	EC no	Annex I Index Number
XYLENE, MIXTURE OF ISOMERS	> 60	1330-20-7	215-535-7	601-022-00-9

Symbols: Xn

R-Phrases: 10 20/21 38

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

Synonyms Benzene, dimethyl- \* Dimethylbenzene (OSHA) \*  
Ksilen (Polish) \* Methyl toluene \* NCI-C55232 \*  
RCRA waste number U239 \* Violet 3 \* Xiloli  
(Italian) \* Xylene (ACGIH:OSHA) \* Xylenen  
(Dutch) \* Xylol \* Xylole (German)

## 3 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT  
Flammable. Harmful by inhalation and in contact with skin.  
Irritating to skin.

## 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.

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### 5 - Fire Fighting Measures

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#### 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.

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.

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### 6 - Accidental Release Measures

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#### 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.

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### 7 - Handling and Storage

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#### 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. Keep away from heat, sparks, and open flame. Store in a cool dry place.

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### 8 - Exposure Controls / Personal Protection

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#### ENGINEERING CONTROLS

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

#### GENERAL HYGIENE MEASURES



ACUTE TOXICITY

LDLO  
Oral  
Human  
50 mg/kg

LCLO  
Inhalation  
Man  
10,000 ppm  
6H

Remarks: Behavioral:General anesthetic. Lungs, Thorax, or  
Respiration:Cyanosis. Blood:Other changes.

LD50  
Oral  
Rat  
4300 mg/kg  
Remarks: Liver:Other changes. Kidney, Ureter, Bladder:Other  
changes.

LC50  
Inhalation  
Rat  
5,000 ppm  
4H

LD50  
Intraperitoneal  
Rat  
2459 MG/KG

LD50  
Subcutaneous  
Rat  
1700 MG/KG

LD50  
Oral  
Mouse  
2119 mg/kg

LD50  
Intraperitoneal  
Mouse  
1548 MG/KG

LD50  
Skin  
Rabbit  
> 1700 mg/kg

LD50  
Oral  
Mammal  
4300 mg/kg

LC50  
Inhalation  
Mammal  
30,000 mg/m3

## IRRITATION DATA

Eyes  
Human  
200 ppm

Skin  
Rabbit  
100 %  
Remarks: Moderate irritation effect

Skin  
Rabbit  
500 mg  
24H  
Remarks: Moderate irritation effect

Eyes  
Rabbit  
87 mg  
Remarks: Mild irritation effect

Eyes  
Rabbit  
5 mg  
24H  
Remarks: Severe irritation effect

## SIGNS AND SYMPTOMS OF EXPOSURE

Exposure can cause: CNS depression. Dermatitis. Abdominal pain, nausea, vomiting. Anorexia. Dyspnea.

## 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.

## IARC CARCINOGEN LIST

Rating: Group 3

## CHRONIC EXPOSURE - TERATOGEN

Result: Possible risk of congenital malformation in the fetus.

Species: Rat  
Dose: 250 MG/M3/24H  
Route of Application: Inhalation  
Exposure Time: (7-15D PREG)  
Result: Specific Developmental Abnormalities: Musculoskeletal system.

Species: Rat  
Dose: 50 MG/M3/6H  
Route of Application: Inhalation  
Exposure Time: (1-21D PREG)

Result: Specific Developmental Abnormalities: Musculoskeletal system. Specific Developmental Abnormalities: Other developmental abnormalities. Effects on Newborn: Growth statistics (e.g., reduced weight gain).

Species: Rat

Dose: 200 PPM/6H

Route of Application: Inhalation

Exposure Time: (4-20D PREG)

Result: Specific Developmental Abnormalities: Musculoskeletal system. Effects on Newborn: Behavioral.

Species: Mouse

Dose: 20600 UG/KG

Route of Application: Oral

Exposure Time: (6-15D PREG)

Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Craniofacial (including nose and tongue). Specific Developmental Abnormalities: Musculoskeletal system.

Species: Mouse

Dose: 2000 PPM/6H

Route of Application: Inhalation

Exposure Time: (6-12D PREG)

Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Species: Mouse

Dose: 1 GM/M3/12H

Route of Application: Inhalation

Exposure Time: (6-15D PREG)

Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system.

Species: Rabbit

Dose: 500 MG/M3/24H

Route of Application: Inhalation

Exposure Time: (7-20D PREG)

Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

#### CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Result: May cause reproductive disorders.

Species: Rat

Dose: 50 MG/M3/6H

Route of Application: Inhalation

Exposure Time: (1-21D PREG)

Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Craniofacial (including nose and tongue).

Species: Mouse

Dose: 31 MG/KG

Route of Application: Oral

Exposure Time: (6-15D PREG)

Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).

Species: Mouse  
Dose: 4000 PPM/6H  
Route of Application: Inhalation  
Exposure Time: (6-12D PREG)  
Result: Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Physical.

Species: Rabbit  
Dose: 1 GM/M3/24H  
Route of Application: Inhalation  
Exposure Time: (7-20D PREG)  
Result: Effects on Fertility: Abortion.

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## 12 - Ecological Information

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No data available.

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## 13 - Disposal Considerations

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### 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.

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## 14 - Transport Information

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### RID/ADR

UN#: 1307  
Class: 3  
PG: III  
Proper Shipping Name: Xylenes solution

### IMDG

UN#: 1307  
Class: 3  
PG: III  
Proper Shipping Name: Xylenes solution  
Marine Pollutant: No  
Severe Marine Pollutant: No

### IATA

UN#: 1307  
Class: 3  
PG: III  
Proper Shipping Name: Xylenes solution  
Inhalation Packing Group I: No

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## 15 - Regulatory Information

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### CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

ANNEX I INDEX NUMBER: 601-022-00-9  
NOTA: C  
INDICATION OF DANGER: Xn  
Harmful.  
R-PHRASES: 10 20/21 38  
Flammable. Harmful by inhalation and in contact with skin.  
Irritating to skin.  
S-PHRASES: 25  
Avoid contact with eyes.

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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