

## Material Safety Data Sheet

Version 5.1  
Revision Date 07/03/2012  
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## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Water, PCR grade  
Product Number : W4502  
Brand : Sigma  
Supplier : Sigma-Aldrich  
3050 Spruce Street  
SAINT LOUIS MO 63103  
USA  
Telephone : +1 800-325-5832  
Fax : +1 800-325-5052  
Emergency Phone # (For  
both supplier and  
manufacturer) : (314) 776-6555  
Preparation Information : Sigma-Aldrich Corporation  
Product Safety - Americas Region  
1-800-521-8956

## 2. HAZARDS IDENTIFICATION

## Emergency Overview

## OSHA Hazards

No known OSHA hazards

Not a dangerous substance according to GHS.

## HMIS Classification

Health hazard: 0  
Flammability: 0  
Physical hazards: 0

## NFPA Rating

Health hazard: 0  
Fire: 0  
Reactivity Hazard: 0

## Potential Health Effects

Inhalation May cause respiratory tract irritation.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : H<sub>2</sub>O  
Molecular Weight : 18.02 g/mol

No ingredients are hazardous according to OSHA criteria.

## 4. FIRST AID MEASURES

## If inhaled

If not breathing give artificial respiration

## 5. FIREFIGHTING MEASURES

## Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Hazardous combustion products  
no data availableFurther information  
The product itself does not burn.

## 6. ACCIDENTAL RELEASE MEASURES

## Methods and materials for containment and cleaning up

Wipe up with absorbent material (e.g. cloth, fleece).

## 7. HANDLING AND STORAGE

## Conditions for safe storage

No special storage conditions required.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

## Personal protective equipment

## Respiratory protection

No special protective equipment required.

## Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

## Immersion protection

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: > 480 min

Material tested: Dermatril® (Aldrich Z677272, Size M)

## Splash protection

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: > 30 min

Material tested: Dermatril® (Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 873000, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

## Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

## Appearance

Form liquid  
Colour colourless

## Safety data

pH 6.0 - 8.0 at 25 °C (77 °F)  
Melting point/freezing point 0.0 °C (32.0 °F)  
Boiling point 100 °C (212 °F) - lit.  
Flash point not applicable

Ignition temperature	not applicable
Autoignition temperature	no data available
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Vapour pressure	no data available
Density	1.000 g/cm <sup>3</sup> at 3.98 °C (39.16 °F)
Water solubility	completely miscible
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odour	no data available
Odour Threshold	no data available
Evaporation rate	no data available

#### 10. STABILITY AND REACTIVITY

##### Chemical stability

Stable under recommended storage conditions.

##### Possibility of hazardous reactions

no data available

##### Conditions to avoid

no data available

##### Materials to avoid

no data available

##### Hazardous decomposition products

no data available

#### 11. TOXICOLOGICAL INFORMATION

##### Acute toxicity

###### Oral LD50

no data available

###### Inhalation LC50

no data available

###### Dermal LD50

no data available

##### Other information on acute toxicity

no data available

##### Skin corrosion/irritation

no data available

##### Serious eye damage/eye irritation

no data available

##### Respiratory or skin sensitization

no data available

##### Germ cell mutagenicity

no data available

#### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

#### Reproductive toxicity

no data available

#### Teratogenicity

no data available

#### Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

#### Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

#### Aspiration hazard

no data available

#### Potential health effects

**Inhalation** May cause respiratory tract irritation.

#### Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

#### Synergistic effects

no data available

#### Additional Information

RTECS: ZC0110000

#### 12. ECOLOGICAL INFORMATION

##### Toxicity

no data available

##### Persistence and degradability

not applicable

##### Bioaccumulative potential

no data available

##### Mobility in soil

no data available

##### PBT and vPvB assessment

no data available

##### Other adverse effects

no data available

#### 13. DISPOSAL CONSIDERATIONS

##### Product

Taking into account local regulations the product may be disposed of as waste water after neutralisation.

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**14. TRANSPORT INFORMATION****DOT (US)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

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**15. REGULATORY INFORMATION****OSHA Hazards**

No known OSHA hazards

**SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**

No SARA Hazards

**Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components**

Water

CAS-No.  
7732-18-5

Revision Date

**New Jersey Right To Know Components**

Water

CAS-No.  
7732-18-5

Revision Date

**California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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**16. OTHER INFORMATION****Further information**

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