



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Revision Date

01.02.2010

## 1. Identification of the substance/mixture and of the company/undertaking

### Product information

Catalogue No.: 106580  
Product name: di-Sodium hydrogen phosphate dihydrate GR for analysis  
Use of the Substance/Mixture: Reagent for analysis, Chemical production  
Company: Merck KGaA \* 64271 Darmstadt \* Germany \* Phone:+49 6151 72-0  
Emergency telephone: Please contact the regional company representation in your country.  
Responsible/issuing person: EQ-RS \* e-mail: prodsafe@merckgroup.com

## 2. Hazards identification

This substance is not classified as dangerous according to European Union legislation.

## 3. Composition/information on ingredients

Formula	$\text{Na}_2\text{HPO}_4 \cdot 2 \text{H}_2\text{O}$	$\text{HNa}_2\text{O}_4\text{P} \cdot 2 \text{H}_2\text{O}$ (Hill)
CAS-No.	10028-24-7	
EC-No.	231-448-7	
Molar mass	177,99 g/mol	

## 4. First aid measures

After inhalation: fresh air.

After skin contact: wash off with plenty of water. Remove contaminated clothing.

After eye contact: rinse out with plenty of water with the eyelid held wide open. Call in ophthalmologist if necessary.

After swallowing: make victim drink water (two glasses at the most). Consult doctor if feeling unwell.

## 5. Fire-fighting measures

### *Suitable extinguishing media*

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

### *Specific hazards during fire fighting*

Not combustible.

Ambient fire may liberate hazardous vapours.

Fire may cause evolution of:

Oxides of phosphorus

### *Special protective equipment for fire-fighters*

In the event of fire, wear self-contained breathing apparatus.

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*Further information*

Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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**6. Accidental release measures**

*Personal precautions*

Avoid inhalation of dusts.

*Environmental precautions*

Do not empty into drains.

*Methods for cleaning up*

Take up dry. Forward for disposal. Clean up affected area. Avoid generation of dusts.

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**7. Handling and storage**

**Handling**

*Advice on safe handling*

Observe label precautions.

**Storage**

*Further information on storage conditions*

Tightly closed. Dry.

Without limitations.

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**8. Exposure controls/personal protection**

**Personal protective equipment**

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

*Respiratory protection*

required when dusts are generated.

*Hand protection*

full contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm
Break through time:	> 480 min

splash contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm
Break through time:	> 480 min

The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374, for example. KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

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This recommendation applies only to the product stated in the safety data sheet and supplied by us as well as to the purpose specified by us. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

### *Eye protection*

|| Safety glasses

### *Hygiene measures*

Change contaminated clothing. Wash hands after working with substance.

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## 9. Physical and chemical properties

Form	solid
Colour	off-white
Odour	odourless
pH	9,0 - 9,4 at 50 g/l 20 °C
Viscosity, dynamic	no data available
Melting point	92,5 °C Elimination of water of crystallisation
Boiling point	no data available
Ignition temperature	not combustible
Flash point	does not flash
Oxidizing properties	no data available
Flammability	no data available
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Vapour pressure	no data available
Relative vapour density	no data available
Density	2,1 g/cm <sup>3</sup> at 20 °C
Bulk density	ca.850 - 1.000 kg/m <sup>3</sup>
Solubility/qualitative	no data available
Water solubility	93 g/l at 20 °C

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Partition coefficient: n-  
octanol/water no data available  
Evaporation rate no data available

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## 10. Stability and reactivity

### *Conditions to avoid*

Strong heating.

### *Materials to avoid*

Exothermic reaction with:

Strong acids, antipyrine, Lead, acetates

### *Hazardous decomposition products*

in the event of fire: See chapter 5.

### *Thermal decomposition*

ca.95 °C

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## 11. Toxicological information

### *Acute oral toxicity*

LD50 rat

Dose: 17.000 mg/kg

(anhydrous substance) (RTECS)

### *Skin irritation*

Possible damages:

After long-term exposure to the chemical: slight irritation

### *Eye irritation*

Possible damages:

After long-term exposure to the chemical: slight irritation

### *Genotoxicity in vitro*

Ames test

Result: negative

(anhydrous substance) (National Toxicology Program)

### *Further information*

Handle in accordance with good industrial hygiene and safety practice.

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## 12. Ecological information

### **Ecotoxicity**

#### *Toxicity to fish*

LC50

Species: Gambusia affinis (Mosquito fish)

Dose: 467 mg/l

Exposure time: 48 h

(anhydrous substance) (Lit.)

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*Toxicity to daphnia and other aquatic invertebrates.*

EC50

Species: Daphnia magna (Water flea)

Dose: 1.089 mg/l

Exposure time: 48 h

(anhydrous substance) (Lit.)

## **Persistence and degradability**

*Biodegradability*

The methods for determining the biological degradability are not applicable to inorganic substances.

*Additional ecological information*

Do not allow to enter waters, waste water, or soil!

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## **13. Disposal considerations**

*Product*

Chemicals must be disposed of in compliance with the respective national regulations. Under [www.retrologistik.de](http://www.retrologistik.de) you will find country- and substance-specific information as well as contact partners.

*Packaging*

Merck product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system. Under [www.retrologistik.de](http://www.retrologistik.de) you will find special information on the respective national conditions as well as contact partners.

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## **14. Transport information**

Not classified as dangerous in the meaning of transport regulations.

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## **15. Regulatory information**

### **GHS-Labeling**

Not a dangerous substance according to GHS.

CAS-No. 10028-24-7

### **Labelling according to EC Directives**

The product does not need to be labelled in accordance with EC directives or respective national laws.

EC-No. 231-448-7

### **National legislation**

Storage class VCI: 10 - 13 Other liquids and solids

Major Accident Hazard 96/82/EC Update: 2003

Legislation: Directive 96/82/EC does not apply

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## **16. Other information**

Regional representation: This information is given on the authorised Safety Data Sheet for your country.

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*The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.*

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