

Safety Data Sheet

According to Regulation (EC) No.1907/2006 (REACH)

Date of issue: 14.08.2008
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1. Identification of the substance/preparation and of the company/undertaking

Identification of the product

Catalogue No.: 106346
Product name: Sodium dihydrogen phosphate monohydrate GR for analysis ACS,Reag.
Ph Eur

Use of the substance/preparation

Reagent for analysis
Chemical production
Pharmaceutical production and analysis

Company/undertaking identification

Company: Merck Chemicals Ltd * Boulevard Industrial Estate * Padge Road * Beeston *
Nottingham * NG9 2JR * Tel. 01159 430840 * information@merckchem.co.uk.
Emergency telephone No.: 0870 1906777
Contact for information: EHSQ/EHS-PI * e-mail:prodsafe@merck.de

2. Hazards identification

No hazardous product as specified in Directive 67/548/EEC.

3. Composition/information on ingredients

Synonyms

Sodium biphosphate, Sodium phosphate monobasic

CAS-No.: 10049-21-5
M: 137.99 g/mol
Formula Hill: $\text{H}_2\text{NaO}_4\text{P} * \text{H}_2\text{O}$
Chemical formula: $\text{NaH}_2\text{PO}_4 * \text{H}_2\text{O}$
EC-No.: 231-449-2

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

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5. Fire-fighting measures

Suitable extinguishing media:
In adaption to materials stored in the immediate neighbourhood.

Special risks:
Non-combustible. Ambient fire may liberate hazardous vapours. The following may develop in event of fire: phosphorus oxides.

Special protective equipment for fire fighting:
Do not stay in dangerous zone without self-contained breathing apparatus.

Other information:
Prevent fire-fighting water from entering surface water or groundwater.

6. Accidental release measures

Person-related precautionary measures:
Avoid inhalation of dusts.

Environmental-protection measures:
Do not allow to enter sewerage system.

Procedures for cleaning / absorption:
Take up dry. Forward for disposal. Clean up affected area. Avoid generation of dusts.

7. Handling and storage

Handling:

Store protected from solvents.

Storage:

Tightly closed. Dry. Storage temperature: no restrictions.

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.

Eye protection: required

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Hand protection:

In full contact:
Glove material: nitrile rubber
Layer thickness: 0.11 mm
Breakthrough time: > 480 Min.

In splash contact:
Glove material: nitrile rubber
Layer thickness: 0.11 mm
Breakthrough 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), 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.

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).

Industrial hygiene:
Change contaminated clothing. Wash hands after working with substance.

9. Physical and chemical properties

Form:	crystals
Colour:	colourless
Odour:	odourless
pH value at 50 g/l H ₂ O	(25 °C) 4.1-4.5
Melting point	not applicable decomposes
Boiling point	not applicable
Ignition temperature	not combustible
Flash point	not flammable
Explosion limits	lower not applicable upper not applicable
Density	(20 °C) 2.04 g/cm ³
Bulk density	~ 880 kg/m ³
Solubility in water	(20 °C) 850 g/l
Thermal decomposition	100 °C (release of crystalline water)

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10. Stability and reactivity

Conditions to be avoided

Strong heating (decomposition).

Substances to be avoided

Violent reactions possible with: strong acids.

Hazardous decomposition products

in the event of fire: See chapter 5.

11. Toxicological information

Acute toxicity

LD₅₀ (dermal, rabbit): >7940 mg/kg (anhydrous substance) (IUCLID).

LD₅₀ (oral, rat): 8290 mg/kg (anhydrous substance) (RTECS).

Specific symptoms in animal studies:

Eye irritation test (rabbit): Slight irritations (IUCLID).

Further toxicological information

Property which must be anticipated on the basis of the chemical/physical data:

After eye contact: Slight irritations.

No toxic effects are to be expected when the product is handled appropriately.

Further data

The product should be handled with the care usual when dealing with chemicals.

12. Ecological information

Biologic degradation:

Methods for the determination of biodegradability are not applicable to inorganic substances.

Ecotoxic effects:

Biological effects:

Fish toxicity: L.idus LC₀: ~2400 mg/l /48 h (anhydrous substance) (OECD 203).

Further ecologic data:

Depending on the concentration, phosphates may contribute to the eutrophication of water supplies.

No ecological problems are to be expected when the product is handled and used with due care and attention.

13. Disposal considerations

Product:

Chemicals must be disposed of in compliance with the respective national regulations. Under 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 you will find special information on the respective national conditions as well as contact partners.

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14. Transport information

Not subject to transport regulations.

15. Regulatory information

Labelling according to EC Directives

Symbol: ---

R-phrases: ---

S-phrases: ---

16. Other information

Reason for alteration

General update.

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.