

Material Safety Data Sheet According to 91/155 EEC

Printing date 13.12.2005

Reviewed on 13.12.2005

* 1 Identification of substance:

- **Product details:** Reagent for water analysis
- **Product name:** Phosphate HR P2
- **Catalog number:** 00515829, (4)515820, (4)515821, 515823
- **Supplier:**
Tintometer GmbH
Schleefstraße 8a-12
D - 44287 Dortmund
Made in Germany
- **Informing department:** Department Laboratory
- **Emergency information:**
Poison Center Berlin, Germany
phone: +49(0)30 19240

phone: +49(0)231 94510-0

* 2 Composition/Data on components:

- **Chemical characterization**
- **Description:** Mixture of anorganic compounds

· **Dangerous components:**

CAS: 5329-14-6 EINECS: 226-218-8 EC Number: 016-026-00-0	sulphamidic acid	☒ Xi; R 36/38-52/53	2.5-5%
CAS: 7803-55-6 EINECS: 232-261-3	ammonium meta-vanadate	☠ T+; R 25-26-36/37/38	≤ 2.5%

- **Additional information** For the wording of the listed risk phrases refer to section 16.

* 3 Hazards identification

- **Hazard designation:**



T Toxic

- **Information pertaining to particular dangers for man and environment**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 23 Toxic by inhalation.

- **Classification system**

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

* 4 First aid measures

- **General information**

Instantly remove any clothing soiled by the product.

(Contd. on page 2)

Material Safety Data Sheet

According to 91/155 EEC

Printing date 13.12.2005

Reviewed on 13.12.2005

Product name: Phosphate HR P2

(Contd. of page 1)

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Remove breathing apparatus only after soiled clothing has been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· After inhalation

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness bring patient into stable side position for transport.

· After skin contact

Instantly rinse with water.

Seek immediate medical advice.

· After eye contact

Rinse opened eye for several minutes under running water.

Call a doctor immediately.

· After swallowing

Rinse out mouth and then drink plenty of water.

Induce vomiting.

· The following symptoms may occur:

after inhalation:

headache

sickness

irritation

coughing

after swallowing:

vomiting

diarrhoea

breathing difficulty

unconsciousness

gastric or intestinal trouble

cramps

· Danger Danger of system failure.

*** 5 Fire fighting measures****· Suitable extinguishing agents**

Fire-extinguishing powder

Sand

· Special hazards caused by the material, its products of combustion or resulting gases:

Formation of toxic gases is possible during heating or in case of fire.

Nitrogen oxides (NO_x)

Sulphur dioxide (SO₂)

· Protective equipment:

Wear self-contained breathing apparatus.

Wear full protective suit.

· Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Collect contaminated fire fighting water separately. It must not enter drains.

*** 6 Accidental release measures****· Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.

Put on breathing apparatus.

· Measures for environmental protection:

Do not allow product to reach sewage system or water bodies.

Inform respective authorities in case product reaches water or sewage system.

· Measures for cleaning/collecting:

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

(Contd. on page 3)

Material Safety Data Sheet

According to 91/155 EEC

Printing date 13.12.2005

Reviewed on 13.12.2005

Product name: Phosphate HR P2

(Contd. of page 2)

Collect mechanically.

* 7 Handling and storage

· Handling**· Information for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Open and handle container with care.

Work only in fume cupboard.

· Information about protection against explosions and fires:

Protect from heat.

Keep breathing equipment ready.

· Storage**· Requirements to be met by storerooms and containers:** Store in cool location.**· Information about storage in one common storage facility:**

Store away from water.

Store away from metals.

· Further information about storage conditions:

Keep container tightly sealed.

Store under dry conditions.

Protect from humidity and keep away from water.

Protect from the effects of light.

* 8 Exposure controls and personal protection

· Additional information about design of technical systems: No further data; see item 7.**· Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· Additional information: The lists that were valid during the compilation were used as basis.**· Personal protective equipment****· General protective and hygienic measures**

Keep away from foodstuffs, beverages and food.

Take off immediately all contaminated clothing

Wash hands during breaks and at the end of the work.

Store protective clothing separately.

· Breathing equipment:

In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.

· Recommended filter device for short term use: Filter P3**· Protection of hands:**

Only use chemical-protective gloves with CE-labelling of category III.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

After use of gloves apply skin-cleaning agents and skin cosmetics.

· Material of gloves

nitrile

Recommended thickness of the material: ≥ 0.11 mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

nitrile rubber, NBR

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Value for the permeation: Level ≥ 6 (480 min)**· Eye protection:** Safety glasses

(Contd. on page 4)

Material Safety Data Sheet

According to 91/155 EEC

Printing date 13.12.2005

Reviewed on 13.12.2005

Product name: Phosphate HR P2

(Contd. of page 3)

 · **Body protection:** Protective work clothing.

9 Physical and chemical properties:

· Form:	Tablets
· Colour:	White
· Odour:	Odourless
· Melting point/Melting range:	Not determined
· Boiling point/Boiling range:	300°C
· Flash point:	Not applicable
· Danger of explosion:	Product is not explosive.
· Vapour pressure at 20°C:	2.7 hPa
· Density at 20°C	1.726 g/cm ³
· Solubility in / Miscibility with Water:	Soluble
· pH-value (9.7 g/l) at 20°C:	3.6
· Solvent content:	
Organic solvents:	0.0 %
· Solids content:	100.0 %

*10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** strong heating
- **Materials to be avoided:**
 - acids
 - metals
 - nitrates
- **Dangerous reactions**
 - Forms hydrogen in aqueous solution with metals
 - Aqueous solution reacts acidic.
- **Dangerous products of decomposition:**
 - ammonia
 - Nitrogen oxides (NO_x)
 - see chapter 5

*11 Toxicological information

- **Acute toxicity:** Quantitative data on the toxicity of the preparation are not available.

· LD/LC50 values that are relevant for classification:

10043-35-3 boric acid, crude natural, containing not more than 85 per cent of H ₃ BO ₃ calculated on the dry weight		
Oral	LD50	2660 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rat)
12054-85-2 ammonium heptamolybdate tetrahydrate		
Oral	LD50	3883 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rabbit)
5329-14-6 sulphamidic acid		
Oral	LD50	3160 mg/kg (rat)

(Contd. on page 5)

Material Safety Data Sheet

According to 91/155 EEC

Printing date 13.12.2005

Reviewed on 13.12.2005

Product name: Phosphate HR P2

(Contd. of page 4)

7803-55-6 ammonium meta-vanadate		
Oral	LD50	25 mg/kg (mouse) 58.1 mg/kg (rat)
Dermal	LD50	2102 mg/kg (rat)
Inhalative	LC50/4 h	2.5 mg/l (rat)

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** Irritant effect.

- **Sensitization:** No sensitizing effect known.

- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:

Toxic

* 12 Ecological information:

- **Information about elimination (persistence and degradability):**

- **Other information:**

Quantitative data on the ecological effect of this product are not available.

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

- **Behaviour in environmental systems:**

10043-35-3 boric acid, crude natural, containing not more than 85 per cent of H₃BO₃ calculated on the dry weight

log P(o/w) 0.76 (25°C) (.)

5329-14-6 sulphamidic acid

log P(o/w) -4.34 (.)

- **Ecotoxicological effects:**

- **Aquatic toxicity:**

10043-35-3 boric acid, crude natural, containing not more than 85 per cent of H₃BO₃ calculated on the dry weight

EC50 133 mg/l/48h (Daphnia magna)

5329-14-6 sulphamidic acid

LC50 70.3 mg/l/96h (Pimephales promelas)

- **Remark:**

Harmful effect due to pH shift.

Toxic for fish:

NH₄⁺ > 0.3 mg/l

- **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment acc. VwVwS Annex 4): hazardous for water.

Do not allow product to reach ground water, water bodies or sewage system.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms.

* 13 Disposal considerations

- **Product:**

- **Recommendation** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **European waste catalogue**

16 05 06 laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

(Contd. on page 6)

— GB —

Material Safety Data Sheet

According to 91/155 EEC

Printing date 13.12.2005

Reviewed on 13.12.2005

Product name: Phosphate HR P2

(Contd. of page 5)

 · **Recommended cleaning agent:** Water, if necessary with cleaning agent.

* 14 Transport information

 · **Land transport ADR/RID (cross-border)**
 · **ADR/RID-GGVS/E Class:** -

 · **Maritime transport IMDG:**
 · **IMDG Class:** -
 · **Marine pollutant:** No

 · **Air transport ICAO-TI and IATA-DGR:**
 · **ICAO/IATA Class:** -

 · **Transport/Additional information:** Not dangerous according to the above specifications.

* 15 Regulatory information

 · **Designation according to EC guidelines:**

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

 · **Code letter and hazard designation of product:**

T Toxic

 · **Hazard-determining components of labelling:**

ammonium meta-vanadate

 · **Risk phrases:**

23 Toxic by inhalation.

 · **Safety phrases:**

 4 Keep away from living quarters.
 9 Keep container in a well-ventilated place.
 20 When using do not eat or drink.
 36 Wear suitable protective clothing.
 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 60 This material and its container must be disposed of as hazardous waste.

 · **National regulations**

 · **Information about limitation of use:**

 Employment restrictions concerning young persons must be observed.
 Employment restrictions concerning pregnant and lactating women must be observed.

16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

 · **Relevant R-phrases**

 25 Toxic if swallowed.
 26 Very toxic by inhalation.
 36/37/38 Irritating to eyes, respiratory system and skin.
 36/38 Irritating to eyes and skin.
 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

 · **Department issuing data specification sheet:** Technical Department

 · *** Data compared to the previous version altered.**
