

Material Safety Data Sheet According to 91/155 EEC

Printing date 30.01.2006

Reviewed on 30.01.2006

1 Identification of substance:

- **Product details:** Reagent for water analysis
- **Product name:** Phosphate RGT F 10 ml
- **Catalogue number:** CW/53.15.50, CW/53.15.53
- **Supplier:**
Camlab Limited
Camlab House, Norman Way, Over, Cambridge CB4 5WE
United Kingdom
Tel: +44 (0)1954 233100
- **Informing department:** Technical Support
- **Emergency information:**
National Poisons Information Service, United kingdom
Tel: 0870 600 6266 (24 hours) • <http://www.npis.org/>

2 Composition/Data on components:

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with harmless additions.

- **Dangerous components:**

CAS: 5329-14-6	sulphamidic acid	<input checked="" type="checkbox"/> Xi; R 36/38-52/53	20-25%
EINECS: 226-218-8			
EC Number: 016-026-00-0			

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

3 Hazards identification

- **Hazard designation:**



Xi Irritant

- **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 36/38 Irritating to eyes and skin.

- **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.
- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact** Instantly wash with water and soap and rinse thoroughly.
- **After eye contact**
Rinse opened eye for several minutes under running water.
Seek medical treatment.

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- **After swallowing**
 - Rinse out mouth and then drink plenty of water.
 - Seek immediate medical advice.
- **Information for doctor**
- **The following symptoms may occur:**
 - after inhalation:
 - irritation
 - coughing
 - breathing difficulty
 - after swallowing:
 - gastric or intestinal trouble
 - sickness
 - vomiting
 - mucous membrane irritation

5 Fire fighting measures

- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **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 oxides (SO_x)
 - ammonia
- **Protective equipment:** Wear self-contained breathing apparatus.
- **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.
 - Ambient fire may liberate hazardous vapours.

6 Accidental release measures

- **Person-related safety precautions:**
 - Avoid causing dust.
 - Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:** Do not allow product to reach sewage system or water bodies.
- **Measures for cleaning/collecting:**
 - Dispose of contaminated material as waste according to item 13.
 - Collect mechanically.
 - Ensure adequate ventilation.

7 Handling and storage

- **Handling**
- **Information for safe handling:**
 - Thorough dedusting.
 - Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** The product is not flammable
- **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.
 - Protect from heat and direct sunlight.

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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.
 Avoid contact with the eyes and skin.
 - **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
 - **Recommended filter device for short term use:** Filter P2
 - **Protection of hands:**
 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 rubber, NBR
 Recommended thickness of the material: ≥ 0.11 mm
 - **Penetration time of glove material**
 The exact break trough 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:** Tightly sealed safety glasses.
 - **Body protection:** Protective work clothing.
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9 Physical and chemical properties:

· Form:	Powder
· Colour:	White
· Odour:	Odourless
· Melting point/Melting range:	Not determined
· Boiling point/Boiling range:	1689°C
· Flash point:	Not applicable
· Danger of explosion:	Product is not explosive.
· Density at 20°C	2.373 g/cm ³
· Solubility in / Miscibility with Water:	Soluble
· pH-value (30 g/l) at 20°C:	1.2
· Solvent content:	
Organic solvents:	0.0 %
· Solids content:	100.0 %

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*10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
- **Materials to be avoided:**
 - alkalis
 - acids
 - metals
 - halogen compounds
 - nitrates
 - oxidizing agents
- **Dangerous reactions**
 - Reacts with water
 - Corrosive action on metals
 - Forms hydrogen in aqueous solution with metals
 - > Explosive
 - Aqueous solution reacts acidic.
- **Dangerous products of decomposition:** 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:**

5329-14-6 sulphamidic acid

Oral	LD50	3160 mg/kg (rat)
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50-81-7 ascorbic acid

Oral	LD50	11900 mg/kg (rat)
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10043-35-3 boric acid, crude natural, containing not more than 85 per cent of H3BO3 calculated on the dry weight

Oral	LD50	2660 mg/kg (rat)
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Dermal	LD50	> 2000 mg/kg (rat)
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10102-40-6 sodium molybdate

Oral	LD50	4233 mg/kg (rat)
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Dermal	LD50	> 2000 mg/kg (rat)
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- **Primary irritant effect:**
 - **on the skin:** Irritant to skin and mucous membranes.
 - **on the eye:** Strong irritant with the danger of severe eye injury.
- **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:
 - Irritant
 - The aerosol is corrosive to the eyes, the skin and the respiratory tract. Inhalation of sulfamic acid aerosols may cause lung oedema.

12 Ecological information:

- **Information about elimination (persistence and degradability):**
- **Other information:** Quantitative data on the ecological effect of this product are not available.

- **Behaviour in environmental systems:**

5329-14-6 sulphamidic acid

log P(o/w)	-4.34 (.)
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50-81-7 ascorbic acid

log P(o/w)	-2.15 (.)
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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) (.)

· Ecotoxicological effects:

· Aquatic toxicity:	
5329-14-6 sulphamidic acid	
LC50	70.3 mg/l/96h (Pimephales promelas)
50-81-7 ascorbic acid	
LC50	33000 (Merck) mg/l/48h (Leuciscus idus) 1020 mg/l/96h (Onchorhynchus mykiss)
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)
LC50	5600 mg/l/96h (Gambusia affinis)
10102-40-6 sodium molybdate	
EC50	330 mg/l/48h (Daphnia magna)
LC50	7600 mg/l/96h (Onchorhynchus mykiss)

· Remark:

Harmful effect due to pH shift.

Toxic for fish:

sulphates > 7 g/l

· Algae toxicity: CAS-No. 10102-40-6: Selenastrum capricornutum IC₅₀: > 100 mg/l/72 h

· Bacterial toxicity:

sulphates toxic > 2.5 g/l

CAS-No. 10102-40-6: Pseudomonas putida EC₁₀: 50 mg/l/18 h
· General notes:

Water hazard class 1 (German Regulation) (Self-assessment acc. VwVwS Annex 4): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralized.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

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.

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

14 Transport information

· Land transport ADR/RID (cross-border)

· ADR/RID-GGVS/E Class: 8 (C2) Corrosive substances.

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· Kemler Number:	80
· UN-Number:	2967
· Packaging group:	III
· Label	8

· Maritime transport IMDG:


· IMDG Class:	8
· UN Number:	2967
· Label	8
· Packaging group:	III
· EMS Number:	F-A,S-B
· Marine pollutant:	No
· Correct technical name:	SULPHAMIC ACID, mixture

· Air transport ICAO-TI and IATA-DGR:


· ICAO/IATA Class:	8
· UN/ID Number:	2967
· Label	8
· Packaging group:	III
· Correct technical name:	SULPHAMIC ACID, mixture

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:

Xi Irritant

· Risk phrases:

36/38 Irritating to eyes and skin.

· Safety phrases:

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

37 Wear suitable gloves.

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.

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

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.**
