

Safety data sheet

according to Regulation (EC) No. 1907/2006



Printing date 12.06.2012

Version number 1

Revision: 12.06.2012

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

- **Product identifier**

- **Trade name:** Roti®-Quant 5x conc.

- **Article number:** K015

- **Registration number**

A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

- **Relevant identified uses of the substance or mixture and uses advised against**

- **Application of the substance / the preparation** Laboratory chemical

- **Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

Carl Roth GmbH + Co. KG

Schoemperlenstraße 3-5

76185 Karlsruhe

Germany

Telefon: +49/(0)721 5606-0

Telefax: +49/(0)721 5606-149

E-Mail: sicherheit@carlroth.de

- **Further information obtainable from:** Department Health, Safety and Environment

- **Emergency telephone number:** Poison Centre Munich

Telefon +49/(0)89 19240

2 Hazards identification

- **Classification of the substance or mixture**

- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



C; Corrosive

R35: Causes severe burns.

R10: Flammable.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

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· **Hazard pictograms**



· **Signal word** Danger

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

phosphoric acid

· **Hazard statements**

H226 Flammable liquid and vapour.

H314 Causes severe skin burns and eye damage.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/physician.

· **Other hazards**

All chemicals are potentially dangerous. They should only be handled by specially trained personnel.

· **Results of PBT and vPvB assessment**





· **PBT:** Not applicable.· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Aqueous solution.

· **Dangerous components:**

CAS: 7664-38-2 EINECS: 231-633-2	phosphoric acid	 C R34  Met. Corr. 1, H290; Skin Corr. 1B, H314	60 - 80%
CAS: 64-17-5 EINECS: 200-578-6	ethanol	 F R11  Flam. Liq. 2, H225	~ 13%

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

4 First aid measures

· **Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.

General advice: No induce of vomiting by layman.

· **After inhalation:**

Supply fresh air.

Seek medical treatment.

· **After skin contact:**

Wash with polyethylene glycol 400 and then rinse with plenty amounts of water.

If there is any trouble seek medical help.

· **After eye contact:**

Rinse immediately for 15 minutes with plenty of water with the eyelid held wide open. Seek medical advice.

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- **After swallowing:**
Rinse out mouth and drink a glass of water. Do not induce vomiting.
Risk of perforation!
Do not induce vomiting; call for medical help immediately.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Use fire extinguishing methods suitable to surrounding conditions.
CO₂, powder or water spray. Fight larger fire with alcohol resistant foam.
- **Special hazards arising from the substance or mixture**
In the event of fire development of hazardous combustion gases or vapours possible.
Hydrogen may form upon contact with metals, danger of explosion.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
- **Environmental precautions:** Do not allow to enter sewers/ground water or penetrate the soil.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (e.g. Pyracidosorb-ROTH® Art. No.0411.1).
Dispose of the material collected according to regulations.
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Handling corresponding to laboratory safety guidelines.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Unsuitable material for receptacle: metal
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Recommended storage temperature:** +4 °C

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- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**

· Ingredients with limit values that require monitoring at the workplace:

7664-38-2 phosphoric acid	
WEL (Great Britain)	Short-term value: 2 mg/m ³ Long-term value: 1 mg/m ³
IOELV (EU)	Short-term value: 2 mg/m ³ Long-term value: 1 mg/m ³
64-17-5 ethanol	
WEL (Great Britain)	Long-term value: 1920 mg/m ³ , 1000 ppm

- **Additional information:** The lists valid during the making were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes and skin.

- **Individual protection measures**

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

- **Respiratory protection:** Required when vapours/aerosols are generated.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

Butylcaoutchouc, thickness: 0,7 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.

- **Penetration time of glove material**

Value for the permeation: Level \geq 6

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

- **Eye protection:**



Tightly sealed goggles

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· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· Form:	Fluid
· Colour:	Dark red
· Odour:	Alcohol-like
· Odour threshold:	Not determined.

· **pH-value at 20°C:** < 7

· **Change in condition**

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	Undetermined.

· **Flash point:** 36°C

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 425°C

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not self-igniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures is possible.

· **Explosion limits:**

· Lower:	3.5 Vol %
· Upper:	15.0 Vol %

· **Vapour pressure at 20°C:** 59 hPa

· Density at 20°C:	1.37 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.

· **Solubility in / Miscibility with water:** Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

· Dynamic:	Not determined.
· Kinematic:	Not determined.

· **Other information** No further relevant information available.

10 Stability and reactivity

· **Reactivity**

· **Chemical stability**

· **Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

· **Possibility of hazardous reactions** Reacts with metals forming hydrogen (risk of explosion).

· **Conditions to avoid** No further relevant information available.

· **Incompatible materials:** Alkali metals, metals, metallic oxides.

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- **Hazardous decomposition products:** No information available.

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

7664-38-2 phosphoric acid		
Oral	LD50	1530 mg/kg (rat)
Dermal	LD50	2740 mg/kg (rabbit)
64-17-5 ethanol		
Oral	LD50	6200 mg/kg (rat)
Inhalative	LC50/4 h	95.6 mg/l (rat)

- **Primary irritant effect:**

- **on the skin:** Strong caustic effect on skin and mucous membranes.

- **on the eye:** Strong caustic effect.

- **after inhalation:** No information available.

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

- **Additional toxicological information:**

After swallowing: burns in the mouth, throat, oesophagus and gastrointestinal tract, risk of perforation in the oesophagus and gastrointestinal tract.

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

Corrosive

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **Further information:** The product should be handled with the care usual when dealing with chemicals.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** Quantitative data on the ecological effect of this product are not available.

- **Fish toxicity:**

7664-38-2 phosphoric acid	
LC50	138 mg/l/96 h (Gambusia affinis)
64-17-5 ethanol	
LC50	8140 mg/l/48 h (Leuciscus idus)

- **Daphnia toxicity:**

64-17-5 ethanol	
EC50	9268-14221 mg/l/48 h (Daphnia magna)

- **Algal toxicity:**

64-17-5 ethanol	
IC5	5000 mg/l (Scenedesmus quadricauda)

- **Bacterial toxicity:**

7664-38-2 phosphoric acid	
EC	270 mg/l (activated sludge)
64-17-5 ethanol	
EC5	6500 mg/l (Pseudomonas putida)

- **Persistence and degradability** No further relevant information available.

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- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:**
Harmful effect on aquatic organisms due to pH shift.
Do not allow to enter waters, waste water, or soil!
- **Additional ecological information:**
- **General notes:**
Do not allow product to reach ground water, water course or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralized.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.
This material and its container must be disposed of as hazardous waste.
- **Uncleaned packaging:**
- **Recommendation:** Disposal according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

<ul style="list-style-type: none"> · UN-Number · ADR, IMDG, IATA 	UN2920
<ul style="list-style-type: none"> · UN proper shipping name · ADR · IMDG · IATA 	2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S. (PHOSPHORIC ACID, SOLUTION, ETHANOL (ETHYL ALCOHOL)) CORROSIVE LIQUID, FLAMMABLE, N.O.S. (PHOSPHORIC ACID, SOLUTION, ETHANOL (ETHYL ALCOHOL)) CORROSIVE LIQUID, FLAMMABLE, N.O.S. (PHOSPHORIC ACID, SOLUTION, ETHANOL)
<ul style="list-style-type: none"> · Transport hazard class(es) · ADR, IMDG, IATA 	<div style="display: flex; align-items: center; gap: 10px;">   </div>
<ul style="list-style-type: none"> · Class · Label 	8 Corrosive substances. 8+3
<ul style="list-style-type: none"> · Packing group · ADR, IMDG, IATA 	II

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<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: No 	
<ul style="list-style-type: none"> · Special precautions for user Warning: Corrosive substances. · Danger code (Kemler): 83 · EMS Number: F-E,S-C · Segregation groups Acids 	
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. 	
<ul style="list-style-type: none"> · Transport/Additional information: 	
<ul style="list-style-type: none"> · ADR · Limited quantities (LQ) 1L · Tunnel restriction code D/E 	
<ul style="list-style-type: none"> · UN "Model Regulation": UN2920, CORROSIVE LIQUID, FLAMMABLE, N.O.S. (PHOSPHORIC ACID, SOLUTION, ETHANOL (ETHYL ALCOHOL)), 8 (3), II 	

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Information about limitation of use:**
Employment restrictions concerning juveniles must be observed.
In dealing with chemicals the national laws must be observed.
- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

H225 Highly flammable liquid and vapour.
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

R11 Highly flammable.
R34 Causes burns.

- **Department issuing MSDS:** Department: Health, Safety and Environment

- **Contact:** Herr Heine

- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

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