

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 18.07.2018

Version number 6

Revision: 13.07.2018

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

1.1 Product identifier

Product name: Vario Phosphate RGT F10 ml

Catalog number: 00531559, 531550, 4531550, 531551, 531552, 531553

1.2 Relevant identified uses of the substance or mixture and uses advised against

Application of the substance / the preparation: Reagent for water analysis

1.3 Details of the supplier of the safety data sheet

Supplier:

Tintometer GmbH
Schleefstraße 8-12
44287 Dortmund
Made in Germany
www.lovibond.com

phone: +49 231 94510-0
e-mail: sales@tintometer.de

Tintometer GmbH
Division AQUALYTIC®
Schleefstr. 12
44287 Dortmund
Made in Germany
www.aqualytic.de

phone: +49 231 94510-755
e-mail: sales@aqualytic.de

The Tintometer Limited
Lovibond® House
Sun Rise Way
Amesbury
Wiltshire SP4 7GR
United Kingdom

phone : +44 1980 664800
e-mail: SDS@tintometer.com

Informing department:

e-mail: sds@tintometer.de
Product Safety Department

1.4 Emergency telephone number:

+44 1235 239670
Languages: English

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS06 skull and crossbones

Acute Tox. 3 H331 Toxic if inhaled.



GHS05 corrosion

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

Eye Dam. 1 H318 Causes serious eye damage.

2.2 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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Product name: Vario Phosphate RGT F10 ml

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Hazard pictograms


GHS05 GHS06

Signal word Danger

Hazard-determining components of labelling:

dipotassium disulfate

Hazard statements

H331 Toxic if inhaled.

H314 Causes severe skin burns and eye damage.

Precautionary statements

P261 Avoid breathing dust.

P280 Wear protective gloves/protective clothing/eye protection.

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

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

2.3 Other hazards No further relevant information available.

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.

SECTION 3: Composition/information on ingredients

3.2 Mixtures
Description: Mixture of organic and inorganic compounds

Dangerous components:

| | | |
|--|--|--------|
| CAS: 7790-62-7 EINECS: 232-216-8 | dipotassium disulfate ☠ Acute Tox. 3, H331; ☠ Skin Corr. 1A, H314; Eye Dam. 1, H318 | 70-80% |
| CAS: 28300-74-5 EINECS: 234-293-3 Index No: 051-003-00-9 | potassium antimony(III) oxide tartrate trihydrate 🐟 Aquatic Chronic 2, H411; ☠ Acute Tox. 4, H302; Acute Tox. 4, H332 | ≤ 0.1% |

Additional information For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures
General information Instantly remove any clothing soiled by the product.

After inhalation Supply fresh air or oxygen; call for doctor.

After skin contact

Instantly rinse with water.

Immediate medical treatment necessary. Failure to treat burns can prevent wounds from healing.

After eye contact

Rinse opened eye for several minutes (at least 15 min) under running water.

Call a doctor immediately.

After swallowing

Rinse out mouth and then drink 1-2 glasses of water.

Do not induce vomiting; instantly call for medical help.

4.2 Most important symptoms and effects, both acute and delayed:

burns

after inhalation:

coughing

breathing difficulty

absorption

after absorption of large amounts:

sickness

vomiting

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gastric or intestinal trouble
drowsiness
dizziness

• **Danger**

Danger of gastric perforation.
Danger of pulmonary oedema.

• **4.3 Indication of any immediate medical attention and special treatment needed:**

If swallowed or in case of vomiting, danger of entering the lungs
Subsequent observation for pneumonia and pulmonary oedema

SECTION 5: Firefighting measures

• **5.1 Extinguishing media**

• **Suitable extinguishing agents** Use fire fighting measures that suit the environment.

• **5.2 Special hazards arising from the substance or mixture**

The product is not combustible.
Formation of toxic gases is possible during heating or in case of fire.
Sulphur oxides (SO_x)
Dipotassium oxide
Carbon monoxide (CO) and carbon dioxide (CO₂)

• **5.3 Advice for firefighters**

• **Protective equipment:**

Wear self-contained breathing apparatus.
Wear full protective suit.

• **Additional information**

Collect contaminated fire fighting water separately. It must not enter drains.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Ambient fire may liberate hazardous vapours.

SECTION 6: Accidental release measures

• **6.1 Personal precautions, protective equipment and emergency procedures**

• **Advice for non-emergency personnel:**

Wear protective equipment. Keep unprotected persons away.
Avoid substance contact.
Ensure adequate ventilation
Use breathing protection against the effects of fumes/dust/aerosol.

• **Advice for emergency responders:** Protective equipment: see section 8

• **6.2 Environmental precautions:** Do not allow product to reach sewage system or water bodies.

• **6.3 Methods and material for containment and cleaning up:**

Ensure adequate ventilation.
Collect mechanically.
Dispose of contaminated material as waste according to item 13.

• **6.4 Reference to other sections**

See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

SECTION 7: Handling and storage

• **7.1 Precautions for safe handling**

• **Advice on safe handling:**

Open and handle container with care.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.

• **Hygiene measures:**

Do not inhale dust / smoke / mist.
Do not get in eyes, on skin, or on clothing.
Take off immediately all contaminated clothing.
Wash hands during breaks and at the end of the work.
Do not eat, drink or smoke when using this product.

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- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** Store in cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Store in a locked cabinet or with access restricted to technical experts or their assistants.
Protect from heat and direct sunlight.
Protect from the effects of light.
Store under dry conditions.
Protect from humidity and keep away from water.
- **Recommended storage temperature:** 20°C +/- 5°C
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· **Components with limit values that require monitoring at the workplace:**

CAS: 28300-74-5 potassium antimony(III) oxide tartrate trihydrate ($\leq 0.1\%$)

| | |
|---------------------|---|
| WEL (Great Britain) | Long-term value: 0.5 mg/m ³ as Sb |
| OEL (Sweden) | Long-term value: 0.25 mg/m ³ som Sb; inhalerbart damm |

· **Recommended monitoring procedures:**

Methods for measurement of the workplace atmosphere have to correspond to the requirements of norms DIN EN 482 and DIN EN 689.

· **Additional information:** The lists that were valid during the compilation were used as basis.

· 8.2 Exposure controls

· **Engineering measures:**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.
See item 7.

· **Personal protective equipment**

· **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.

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

· **Protection of hands:**

Protective gloves.
Preventive skin protection by use of skin-protecting agents is recommended.
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**

Value for the permeation: Level = 1 (< 10 min)
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 safety glasses.

· **Body protection:** Acid resistant protective clothing

· **Limitation and supervision of exposure into the environment:** No further relevant information available.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· **Appearance:**

| | |
|------------------------|--------|
| Form / Physical state: | Powder |
| Colour: | White |

· **Odour:** Odourless

· **Odour threshold:** Not applicable

· **pH-value (31.3 g/l) at 20°C:** 1.2

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| | |
|---|--|
| · Melting point/Freezing point: | Not determined |
| · Initial boiling point and boiling range: | Not determined |
| · Flash point: | Not applicable |
| · Flammability (solid, gas): | The product is not combustible. |
| · Decomposition temperature: | Not determined. |
| · Auto-ignition temperature: | Product is not self-igniting. |
| · Explosive properties: | Product is not explosive. |
| · Flammability or explosive limits: | |
| Lower: | Not applicable |
| Upper: | Not applicable |
| · Oxidising properties: | none |
| · Vapour pressure: | Not applicable. |
| · Density at 20°C: | 2.38 g/cm ³ |
| · Relative density: | Not determined. |
| · Vapour density: | Not applicable. |
| · Evaporation rate: | Not applicable. |
| · Solubility(ies): | |
| Water: | Soluble |
| · Partition coefficient: n-octanol/water: | Not applicable. |
| · Viscosity: | Not applicable. |
| · dynamic: | Not applicable. |
| · kinematic: | Not applicable. |
| · Solvent content: | |
| Organic solvents: | 0.0 % |
| Solids content: | 100.0 % |
| · 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** see section 10.3
- **10.2 Chemical stability**
Stable at ambient temperature (room temperature).
sensitive to moisture
sensitivity to light
sensitive to air
- **10.3 Possibility of hazardous reactions** Aqueous solution reacts acidic.
- **10.4 Conditions to avoid** Strong heating (decomposition)
- **10.5 Incompatible materials:** metals
- **10.6 Hazardous decomposition products:** see section 5

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
Classification according to calculation procedure:
Toxic if inhaled.

| | | |
|--|--------------------------|--|
| · Acute toxicity estimate (ATE_(MIX)) - Calculation method: | | |
| Inhalative | CLP ATE _(MIX) | 0.7 mg/l/4h (dust) |
| · LD/LC50 values that are relevant for classification: | | |
| CAS: 7790-62-7 dipotassium disulfate | | |
| Oral | LD50 | 2500 mg/kg (ATE) (Read across 7664-93-9: LD ₅₀ (rat) = 2140 mg/kg, ECHA) |

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| | | |
|------------|------|---|
| Inhalative | LC50 | 0.5 mg/l/4h (ATE) (Aerosol) (Read across 7664-93-9: LD ₅₀ (rat, 4h) = ~ 850 mg/m ³ , ECHA) |
|------------|------|---|

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**
Causes serious eye damage.
Risk of blindness!
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)** The following statements refer to the mixture:
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT (specific target organ toxicity) -single exposure** Based on available data, the classification criteria are not met.
- **STOT (specific target organ toxicity) -repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Bacterial toxicity:** sulphates toxic > 2.5 g/l
- **Other information:**
Toxic for fish:
sulphates > 7 g/l
molybdenum compounds in general: > 25 mg/l
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.
- **12.6 Other adverse effects**
Harmful effect due to pH shift.
Avoid transfer into the environment.
- **Water hazard:**
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 unneutralised.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Hand over to disposers of hazardous waste.

• European waste catalogue

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

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

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SECTION 14: Transport information

| | |
|--|---|
| <ul style="list-style-type: none"> 14.1 UN-Number ADR, IMDG, IATA | UN2923 |
| <ul style="list-style-type: none"> 14.2 UN proper shipping name ADR IMDG, IATA | 2923 CORROSIVE SOLID, TOXIC, N.O.S. (dipotassium disulfate) CORROSIVE SOLID, TOXIC, N.O.S. (dipotassium disulfate) |
| <ul style="list-style-type: none"> 14.3 Transport hazard class(es) ADR <div style="display: flex; align-items: center;">   </div> <ul style="list-style-type: none"> Class Label | 8 (CT2) Corrosive substances. 8+6.1 |
| <ul style="list-style-type: none"> IMDG <div style="display: flex; align-items: center;">   </div> <ul style="list-style-type: none"> Class Label | 8 Corrosive substances. 8/6.1 |
| <ul style="list-style-type: none"> IATA <div style="display: flex; align-items: center;">   </div> <ul style="list-style-type: none"> Class Label | 8 Corrosive substances. 8 (6.1) |
| <ul style="list-style-type: none"> 14.4 Packing group ADR, IMDG, IATA | II |
| <ul style="list-style-type: none"> 14.5 Environmental hazards: Marine pollutant: | No |
| <ul style="list-style-type: none"> 14.6 Special precautions for user Kemler Number: EMS Number: Segregation groups Stowage Category Stowage Code | Warning: Corrosive substances. 86 F-A,S-B Acids B SW2 Clear of living quarters. |
| <ul style="list-style-type: none"> 14.7 Transport in bulk according to Annex II of Marpol 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) Excepted quantities (EQ) Transport category Tunnel restriction code | 1 kg Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g 2 E |
| <ul style="list-style-type: none"> IMDG Limited quantities (LQ) | 1 kg |

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· Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 500 g

SECTION 15: Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**· Regulation (EC) No 1005/2009 on substances that deplete the ozone layer:**

None of the ingredients is listed.

· Directive 2012/18/EU (SEVESO III):**· Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t**· Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t**· Regulation (EU) No 649/2012**

None of the ingredients is listed.

· Information about limitation of use: Employment restrictions concerning young persons must be observed.**· 15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 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 phrases

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H331 Toxic if inhaled.

H332 Harmful if inhaled.

H411 Toxic to aquatic life with long lasting effects.

· Training hints Provide adequate information, instruction and training for operators.**· Abbreviations and acronyms:**

EC50: effective concentration, 50 percent (in vivo)

STOT: specific target organ toxicity

SE: single exposure

RE: repeated exposure

EC50: half maximal effective concentration

IC50: half maximal inhibitory concentration

NOEL or NOEC: No Observed Effect Level or Concentration

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 3: Acute toxicity – Category 3

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

· Sources

Data arise from safety data sheets, reference works and literature.

ECHA: European CHemicals Agency <http://echa.europa.eu>