

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

Printing date 01.04.2015

Version number 3

Revision: 01.04.2015

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, 531553, 4531550, 531551
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the preparation:** Reagent for water analysis
- **1.3 Details of the supplier of the safety data sheet**
- **Supplier:**
Tintometer GmbH
Schleefstr. 8-12
DE-44287 Dortmund
Made in Germany
www.lovibond.com
- **Informing department:**
e-mail: produktsicherheit@tintometer.de
Product Safety Department
- **Contact for technical details:**
Technical Department
e-mail: technik@tintometer.de
- **1.4 Emergency telephone number:**
Poison Center Berlin, Germany
phone: 0049-30 30686 790

phone: +49 (0) 231 945100
E-Mail: sales@tintometer.de

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

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



T; Toxic

R23: Toxic by inhalation.



C; Corrosive

R35: Causes severe burns.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms** GHS05, GHS06
- **Signal word** Danger
- **Hazard-determining components of labelling:**
dipotassium disulfate
- **Hazard statements**
H331 Toxic if inhaled.

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H314 Causes severe skin burns and eye damage.

Precautionary statements

P261 Avoid breathing dust.

P303+P361+P353 IF ON SKIN (or hair): 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/doctor.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.



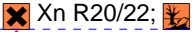
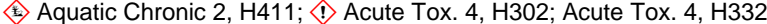
P405 Store locked up.

2.3 Other hazards No further relevant information available.

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  T R23; C R35  Acute Tox. 3, H331; Skin Corr. 1B, 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  Xn R20/22; N R51/53  Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H332	≤ 0.1%

REACH - Pre-registered substances All components are REACH pre-registered.

Additional information For the wording of the listed risk 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 wash with water and soap and rinse thoroughly.

Call a doctor immediately.

After eye contact

Rinse opened eye for several minutes (at least 10 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

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

Subsequent observation for pneumonia and pulmonary oedema

If swallowed or in case of vomiting, danger of entering the lungs

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

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

Sulphur oxides (SO_x)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.

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Ambient fire may liberate hazardous vapours.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Avoid causing dust.

Use breathing protection against the effects of fumes/dust/aerosol.

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:

Dispose of contaminated material as waste according to item 13.

Collect mechanically.

Ensure adequate ventilation.

6.4 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 information on disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Store in cool, dry place in tightly closed containers.

Thorough dedusting.

Information about protection against explosions and fires: The product is not flammable

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.

Keep container tightly sealed.

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

Storage class 6.1D

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

SECTION 8: Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

8.1 Control parameters

Components with limit values that require monitoring at the workplace:

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; inhalerbar damm

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

8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures

Avoid contact with the eyes and skin.

Take off immediately all contaminated clothing

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

Do not eat, drink or smoke while working.

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

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- **Recommended filter device for short term use:** Filter P3
- **Protection of hands:**
Protective gloves.
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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Value for the permeation: Level = 1 (< 10 min)
- **Eye protection:**
Safety glasses
use against the effects of fumes / dust
- **Body protection:** Protective work clothing.

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 determined.
· pH-value (31.3 g/l) at 20 °C:	1.2
· Melting point/Melting range:	Not determined
· Boiling point/Boiling range:	Not determined
· Flash point:	Not applicable
· Inflammability (solid, gaseous)	Not determined.
· Danger of explosion:	Product is not explosive.
· Critical values for explosion:	
Lower:	Not determined.
Upper:	Not determined.
· Density at 20 °C	2.4 g/cm ³
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water:	Soluble
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
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

- **Reactivity**
- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
- **Possibility of hazardous reactions** Aqueous solution reacts acidic.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:**
metals

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oxidizing agents

Hazardous decomposition products:

 carbon monoxide (CO) and carbon dioxide (CO₂)
 see chapter 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity:

Quantitative data on the toxicity of the preparation are not available.

The following statements refer to the individual components.

LD/LC50 values that are relevant for classification:

Inhalative	ATE _(MIX)	0.71 mg/l/4h (.) (aerosol: dust, mist)
7790-62-7 dipotassium disulfate		
Oral	LD50	2500 mg/kg (ATE)
Inhalative	LC50	0.5 mg/l/4h (ATE) (aerosol: dust, mist)
28300-74-5 potassium antimony(III) oxide tartrate trihydrate		
Oral	LD50	500 mg/kg (ATE)
	LDLo	2 mg/kg (human) (RTECS)

Primary irritant effect:

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

- on the eye:** strong caustic effect.

- Sensitisation:** No sensitizing effect known.

- Subacute to chronic toxicity:** chronic: dermatitis

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.

- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)** no data available

SECTION 12: Ecological information

12.1 Toxicity

- Aquatic toxicity:** No further relevant information available.

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

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

- 12.3 Bioaccumulative potential** No further relevant information available.

Behaviour in environmental systems:

- 12.4 Mobility in soil** No further relevant information available.

Ecotoxicological effects:
Remark:

Toxic for fish:

sulphates > 7 g/l

- Bacterial toxicity:** sulphates toxic > 2.5 g/l

Additional ecological information:
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 unneutralised.

- 12.5 Results of PBT and vPvB assessment** no data available

- 12.6 Other adverse effects** No further relevant information available.

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.

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Disposal must be made according to official regulations.

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.

SECTION 14: Transport information

14.1 UN-Number
ADR, IMDG, IATA UN2923

14.2 UN proper shipping name
ADR 2923 CORROSIVE SOLID, TOXIC, N.O.S. (dipotassium disulfate)
IMDG, IATA CORROSIVE SOLID, TOXIC, N.O.S. (dipotassium disulfate)

14.3 Transport hazard class(es)
ADR

Class 8 (CT2) Corrosive substances.
Label 8+6.1

IMDG

Class 8 Corrosive substances.
Label 8/6.1

IATA

Class 8 Corrosive substances.
Label 8 (6.1)

14.4 Packing group
ADR, IMDG, IATA II

14.5 Environmental hazards:
Marine pollutant: No

14.6 Special precautions for user
Warning: Corrosive substances.
Kemler Number: 86
EMS Number: F-A,S-B
Segregation groups Acids

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

Transport/Additional information:
ADR
Limited quantities (LQ) 1 kg
Excepted quantities (EQ) Code: E2
 Maximum net quantity per inner packaging: 30 g
 Maximum net quantity per outer packaging: 500 g
Transport category 2

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· Tunnel restriction code	E
· IMDG	
· Limited quantities (LQ)	1 kg
· 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**
- **Information about limitation of use:**
Observe employment restrictions for pregnant and nursing mothers according to the 'mother protection guideline' (92/85/EEC).
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.

R20/22 Harmful by inhalation and if swallowed.
 R23 Toxic by inhalation.
 R35 Causes severe burns.
 R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Abbreviations and acronyms:**

EC50: effective concentration, 50 percent (in vivo)
 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 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
 Acute Tox. 4: Acute toxicity, Hazard Category 4
 Acute Tox. 3: Acute toxicity, Hazard Category 3
 Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
 Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
 Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

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