Tintometer[®] Group Water Testing



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

Printing date 13.11.2023

Version number 41 (replaces version 40)

H372 Causes damage to the thyroid through prolonged or repeated exposure. Route of exposure: Oral.

Revision: 13.11.2023

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

- 1.1 Product identifier
- · Product name: Vario Sodium periodate F 10 ml
- · Catalog number: 00530669, 530660
- 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

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

- Informing department: e-mail: sds@lovibond.com 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



GHS03 flame over circle

Ox. Sol. 2

H272 May intensify fire; oxidiser.



GHS08 health hazard



GHS05 corrosion



Skin Corr. 1CH314 Causes severe skin burns and eye damage.Eye Dam. 1H318 Causes serious eye damage.

¥2

GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

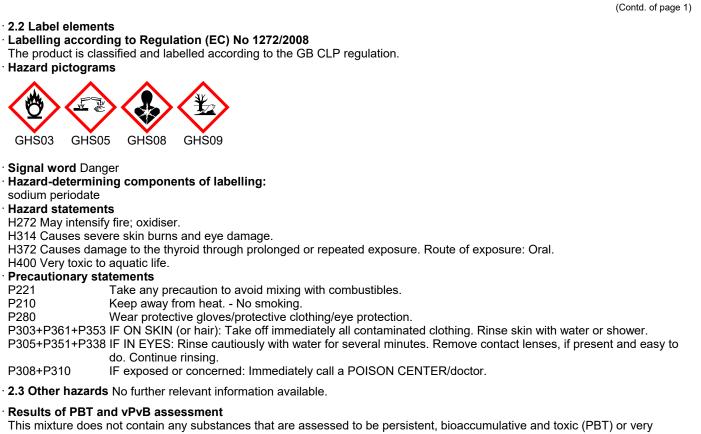
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Product name: Vario Sodium periodate F 10 ml



persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006. Determination of endocrine-disrupting properties

The product does not contain substances with endocrine disrupting properties.

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· Description: Mixture of inorganic compounds.

· Dangerous components: CAS: 7790-28-5 40-50% sodium periodate EINECS: 232-197-6 🚸 Ox. Sol. 1, H271; 🚸 STOT RE 1, H372; 🔶 Skin Corr. 1C, H314; 🚸 Aquatic Acute 1, H400 (M=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.
- Call a doctor immediately.
- 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. Then consult doctor.
- 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.

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

burns coughing breathing difficulty after swallowing: damage to the affected mucous membranes possible after inhalation: strong caustic effect. sickness vomiting cardiovascular disorders

• 4.3 Indication of any immediate medical attention and special treatment needed: No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- Suitable extinguishing agents Water, Carbon dioxide (CO₂), Foam, Fire-extinguishing powder

5.2 Special hazards arising from the substance or mixture

The product is not combustible.

Has a fire-promoting effect due to release of oxygen.

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

Can be released in case of fire:

Sodium monoxide

- Sulphur oxides (SOx)
- iodine compounds Sodium oxide
- 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:

Ensure good ventilation/exhaustion at the workplace. Prevent formation of dust. Keep ignition sources away - Do not smoke.

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· Hygiene measures:

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- 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.
- · 7.2 Conditions for safe storage, including any incompatibilities
- Requirements to be met by storerooms and containers: Store in cool location.
- Information about storage in one common storage facility:
- Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.
- Store away from flammable substances.
- Store away from oxidising agents.
- Further information about storage conditions: 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.
 This product is hygroscopic.
- 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:
- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace. 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.
- · Individual protection measures, such as personal protective equipment
- Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled.
- · Eye/face protection Tightly sealed safety glasses.
- Hand protection
- Protective gloves.
- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- 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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- Other skin protection (body protection): Protective work clothing.
- Breathing equipment: Use breathing protection against the effects of fumes/dust/aerosol.
- · Environmental exposure controls
- Avoid release to the environment.

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

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0.4 Information on basis physical and shaming an	onortion
9.1 Information on basic physical and chemical pro Physical state	Solid.
Form:	Powder
Colour:	White
Odour:	Odourless
Odour threshold:	Not applicable.
Melting point/Freezing point:	175°C (CAS 7790-28-5)
Boiling point or initial boiling point and boiling rar	
Flammability	Product is not inflammable.
	Contact with combustible material may cause fire.
Explosive properties:	Product is not explosive.
Lower and upper explosion limit	
Lower:	Not applicable.
Upper:	Not applicable.
Flash point:	Not applicable.
Auto-ignition temperature:	Not applicable (solid).
Decomposition temperature:	270 (518 °F)°C (CAS 7790-28-5)
pH (8.9 g/l) at 20°C	4.7
Kinematic viscosity	Not applicable (solid).
Solubility	
Water:	Soluble
Partition coefficient n-octanol/water (log value)	Not applicable (mixture).
Vapour pressure:	Not applicable.
Density and/or relative density	
Density at 20°C:	3.2 g/cm³ (26.7 lbs/gal)
Relative density:	Not determined.
Relative gas density	Not applicable (solid).
Particle characteristics	Not determined.
9.2 Other information	
Information with regard to physical hazard classes	3
Corrosive to metals	Void
Other safety characteristics	
Oxidising properties:	May intensify fire; oxidiser.
Additional information	, ,
Solids content:	100.0 %

SECTION 10: Stability and reactivity

· 10.1 Reactivity Substance/product is oxidising when dry.

- 10.2 Chemical stability Stable at ambient temperature (room temperature).
- 10.3 Possibility of hazardous reactions
- Reacts with powdered metals
- Reacts with flammable substances
- Perchlorates
- Reacts with reducing agents
- Reacts with acids
- Violent reactions possible with:
- · 10.4 Conditions to avoid Strong heating (decomposition)
- · 10.5 Incompatible materials:
- metals
- organic substances
- **10.6 Hazardous decomposition products:** sodium monoxide, iodine, hydrogen iodide
- see section 5

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SECTION 11: Toxicological information

· 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

· Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50 values that are relevant for classification:

CAS: 7790-28-5 sodium periodate

LD50 IPR 58 mg/kg (mouse) NOAEL

3 mg/kg (rat) (oral, 90d)

(Registrant, ECHA: read-across CAS 7758-05-6 / target organ: thyroid)

· 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.

· 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.

· Information on components:		
CAS: 7790-28-5 sodium periodate		
OECD 476	(negative) (In Vitro Mammalian Cell Gene Mutation Test) (read-across CAS 7758-05-6)	
	(negative) (In Vitro Mammalian Cell Micronucleus Test) (read-across CAS 7758-05-6)	

• STOT (specific target organ toxicity) -single exposure Based on available data, the classification criteria are not met.

· STOT (specific target organ toxicity) -repeated exposure

Causes damage to the thyroid through prolonged or repeated exposure. Route of exposure: Oral.

· 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.

· 11.2 Information on other hazards

· Endocrine disrupting properties The product does not contain substances with endocrine disrupting properties.

Other information

According to the information available to us, the chemical, physical and toxicological properties of the substances mentioned in Chapter 3 have not been thoroughly investigated.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity: CAS: 7790-28-5 sodium periodate EC50 0.18 mg/l/48h (Daphnia magna) (OECD 202) EC50 1.1 mg/l/72h (Pseudokirchneriella subcapitata) (OECD 201) LC50 >0.17 mg/l/96h (rainbow trout) (OECD 203) **Bacterial toxicity:** sulphates toxic > 2.5 g/l

CAS: 7790-28-5 sodium periodate

EC50 220 mg/l (activated sludge) (3h, OECD 220)

Other information:

Toxic for fish:

Sulphates > 7 g/l

12.2 Persistence and degradability .

· Other information:

Mixture of inorganic compounds.

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

· 12.3 Bioaccumulative potential No further relevant information available.

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- \cdot 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 Endocrine disrupting properties The product does not contain substances with endocrine disrupting properties.
- 12.7 Other adverse effects Avoid transfer into the environment.
- · Water hazard:

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak into soil.

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 07* discarded inorganic chemicals consisting of or containing hazardous substances

- · 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 or ID number · ADR, IMDG, IATA	UN3085
 14.2 UN proper shipping name ADR 	3085 OXIDIZING SOLID, CORROSIVE, N.O.S. (sodium periodate), ENVIRONMENTALLY HAZARDOUS
·IMDG	OXIDIZING SOLID, CORROSIVE, N.O.S. (sodium periodate), MARINE POLLUTANT
·IATA	OXIDIZING SOLID, CORROSIVE, N.O.S. (sodium periodate)
· 14.3 Transport hazard class(es)	
ADR	
· Class · Label	5.1 (OC2) Oxidising substances. 5.1+8
·IMDG	
Class	5.1 Oxidising substances.
·Label	5.1/8
Class	5.1 Oxidising substances.
· Label	5.1 (8)
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· 14.4 Packing group · ADR, IMDG, IATA	II
· 14.5 Environmental hazards:	
· Marine pollutant:	No
	Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
14.6 Special precautions for user	Warning: Oxidising substances.
Kemler Number:	58
· EMS Number:	F-A,S-Q B
 Stowage Category Handling Code 	H1 Keep as dry as reasonably practicable
· Segregation Code	SG38 Stow "separated from" SGG2-ammonium compounds.
	SG49 Stow "separated from" SGG6-cyanides
	SG60 Stow "separated from" SGG16-peroxides
• 14.7 Maritime transport in bulk according to IMC)
instruments	Not applicable.
· Transport/Additional information:	
ADR	
Excepted quantities (EQ):	E2
Limited quantities (LQ)	1 kg
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 g
	Maximum net quantity per outer packaging: 50 g
· Transport category	2
· 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

 \cdot 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

· Poisons Act UK
· Regulated explosives precursors
None of the ingredients is listed.
· Regulated poisons
None of the ingredients is listed.
· Reportable explosives precursors
None of the ingredients is listed.
· Reportable poisons
None of the ingredients is listed.
· Regulation (EU) 2019/1148 on the marketing and use of explosives precursors not regulated
 Regulation (EU) No 649/2012 concerning the export and import of hazardous chemicals (PIC)
None of the ingredients is listed.
 Regulation (EC) No 1334/2000 setting up a Community regime for the control of exports of dual-use items and technology:
None of the ingredients is listed.
· Regulation (EC) No 273/2004 on drug precursors
None of the ingredients is listed.
 Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors
None of the ingredients is listed.

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Regulation (EC) No 1005/2009 on substances that deplete the ozone layer:	
None of the ingredients is listed.	
· REGULATION (EU) 2019/1021 on persistent organic pollutants (POP)	
None of the ingredients is listed.	
· LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)	
None of the ingredients is listed	

None of the ingredients is listed.

- Substances of very high concern (SVHC) according to REACH, Article 57 This product does not contain any substances of very high concern above the legal concentration limit of $\ge 0.1\%$ (w / w).
- Substances of very high concern (SVHC) according to UK REACH This product does not contain any substances of very high concern above the legal concentration limit of $\ge 0.1\%$ (w / w).
- · Directive 2012/18/EU (SEVESO III):
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category
- P8 OXIDISING LIQUIDS AND SOLIDS
- E1 Hazardous to the Aquatic Environment
- Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t
- · Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
- · Information about limitation of use: Employment restrictions concerning young persons must be observed (94/33/EC).
- 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.

This Safety Data Sheets is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

· Training hints Provide adequate information, instruction and training for operators.

· Relevant phrases

H271 May cause fire or explosion; strong oxidiser.

- H314 Causes severe skin burns and eye damage.
- H372 Causes damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

Abbreviations and acronyms:

ICAO: International Civil Aviation Organisation EC50: effective concentration, 50 percent (in vivo) OECD: Organisation for Economic Co-operation and Development 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 relatif au transport international 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 SVHC: Substances of Very High Concern vPvB: very Persistent and very Bioaccumulative Ox. Sol. 1: Oxidizing solids – Category 1 Ox. Sol. 2: Oxidizing solids – Category 2 Skin Corr. 1C: Skin corrosion/irritation - Category 1C Eye Dam. 1: Serious eye damage/eye irritation - Category 1

- STOT RE 1: Specific target organ toxicity (repeated exposure) Category 1
- Aquatic Acute 1: Hazardous to the aquatic environment acute aquatic hazard Category 1

Sources

Data arise from safety data sheets, reference works and literature. IUCLID (International Uniform Chemical Information Database)

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International Chemical Safety Cards (ICSCs)

** Data compared to the previous version altered.

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