

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

Print date 20.10.2011 (DD.MM.YYYY)

Version number 36

Revision: 20.10.2011

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

- **1.1 Product identifier** Reagent for water analysis
- **Product name:** Vario Sodium periodate F 10 ml
- **Catalog number:** 251406Y
- **1.2 Details of the supplier of the safety data sheet**
- **Supplier:**  
YSI  
1725 Brannum Lane  
Yellow Springs, OH 45387  
USA  
tel: +1 937-767-7241
- **Informing department:**  
MSDSinfo@ysi.com
- **Emergency information:**  
Chemtrec toll free (USA and Canada): (800) 424-9300  
Chemtrec International Telephone Number: 001 703-527-3887 (Collect Calls Accepted)

### 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.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

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



Xn; Harmful

R22: Harmful if swallowed.



O; Oxidising

R8: Contact with combustible material may cause fire.

- **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** GHS03, GHS07
- **Signal word** Danger
- **Hazard-determining components of labelling:**  
sodium periodate

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**· Hazard statements**

H272 May intensify fire; oxidiser.

H302 Harmful if swallowed.

**· Precautionary statements**

P221 Take any precaution to avoid mixing with combustibles.

P210 Keep away from heat. - No smoking.

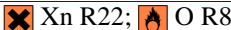

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

### 3 Composition/information on ingredients

**· 3.2 Chemical characterization: Mixtures**
**· Description:** Mixture of inorganic compounds

**· Dangerous components:**

CAS: 7790-28-5	sodium periodate		40-45%
EINECS: 232-197-6			

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

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

### 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; 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 (at least 15 minutes). If symptoms persist, consult doctor.

**· After swallowing**

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

Call a doctor immediately.

**· 4.2 Most important symptoms and effects, both acute and delayed**

after swallowing:

diarrhoea

sickness

vomiting

**· Indication of any immediate medical attention and special treatment needed** No further relevant information available.

### 5 Firefighting measures

**· 5.1 Extinguishing media**
**· Suitable extinguishing agents**

Water spray jet

Foam

Carbon dioxide (CO<sub>2</sub>)

Fire-extinguishing powder

**· 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<sub>x</sub>)

sodium monoxide

iodine compounds

**· 5.3 Advice for firefighters**
**· Protective equipment:**

Wear full protective suit.

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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.

## 6 Accidental release measures

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

Wear protective equipment. Keep unprotected persons away.

Avoid causing dust.

Keep away from ignition sources

Ensure adequate ventilation

· **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 8 for information on personal protection equipment.

## \* 7 Handling and storage

· **Handling**

· **7.1 Precautions for safe handling**

Keep away from heat and direct sunlight.

Keep containers tightly sealed.

Prevent formation of dust.

· **Information about protection against explosions and fires:**

Substance/product is oxidizing when dry.

Protect from heat.

Keep ignition sources away - Do not smoke.

· **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:**

Store away from oxidizing agents.

Store away from flammable substances.

· **Further information about storage conditions:**

Store under dry conditions.

Protect from the effects of light.

Protect from humidity and keep away from water.

· **Recommended storage temperature:** 20°C +/- 5°C

· **Storage class** 5.1B

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

## 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:**

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.

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- **8.2 Exposure controls**
- **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.
- **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:  $\geq 0.11$  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  $\geq 1$  (>10 min)
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing.

## 9 Physical and chemical properties

· <b>9.1 Information on basic physical and chemical properties</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Powder
· <b>Colour:</b>	White
· <b>Odour:</b>	Odourless
· <b>pH-value (8.9 g/l) at 20°C:</b>	4.7
· <b>Melting point/Melting range:</b>	175°C
· <b>Boiling point/Boiling range:</b>	300°C
· <b>Flash point:</b>	Not applicable
· <b>Inflammability (solid, gaseous)</b> Contact with combustible material may cause fire.	
· <b>Density at 20°C</b>	3.194 g/cm <sup>3</sup>
· <b>Solubility in / Miscibility with</b>	
· <b>Water:</b>	Soluble
· <b>Solvent content:</b>	
· <b>Organic solvents:</b>	0.0 %
· <b>Solids content:</b>	100.0 %
· <b>9.2 Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity**
- **Thermal decomposition / conditions to be avoided:** Explosive thermal decomposition
- **Possibility of hazardous reactions** Reacts with powdered metals
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:**  
organic substances  
acids

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metals

reducing agents

aluminium

- **Hazardous decomposition products:**

sodium monoxide, iodine, hydrogen iodide

see chapter 5

## 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:**

**7790-28-5 sodium periodate**

Oral	LD50	264 mg/kg (rat)
	LD50 IPR	58 mg/kg (mouse)

- **Primary irritant effect:**

- **on the skin:** No irritant effect.

- **on the eye:** slight irritations possible

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

- **Additional toxicological information:** Harmful

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

## 12 Ecological information

- **12.1 Toxicity**

- **Acquatic 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.

Does not cause biological oxygen deficit.

The following statements refer to the individual components.

- **Behaviour in environmental systems:**

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

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

- **Ecotoxicological effects:**

- **Remark:** Toxic

for fish:

sulphates &gt; 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 unneutralized.

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

- **vPvB assessments:** no data available

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

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### 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 dangerous substances
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**Uncleaned packagings:**

**Recommendation:** Disposal must be made according to official regulations.

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

### 14 Transport information

**14.1 UN-Number**

**ADR, IMDG, IATA** UN1479

**14.2 UN proper shipping name**

**ADR** 1479 OXIDIZING SOLID, N.O.S. (sodium periodate)  
**IMDG, IATA** OXIDIZING SOLID, N.O.S. (sodium periodate)

**14.3 Transport hazard class(es)**
**ADR**


**Class** 5.1 (O2) Oxidising substances.  
**Label** 5.1

**IMDG, IATA**


**Class** 5.1 Oxidising substances.  
**Label** 5.1

**14.4 Packing group**

**ADR, IMDG, IATA** II

**14.5 Environmental hazards:**

**Marine pollutant:** No

**14.6 Special precautions for user**

Warning: Oxidising substances.  
**Kemler Number:** 50  
**EMS Number:** F-A,S-Q

**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  
**Tunnel restriction code** E

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<b>· UN "Model Regulation":</b>	UN1479, OXIDIZING SOLID, N.O.S., 5.1, II
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### 15 Regulatory information

- **15.4 Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **National regulations**
  - **Information about limitation of use:**  
Employment restrictions concerning young persons must be observed.  
Observe employment restrictions for pregnant and nursing mothers according to the 'mother protection guideline' (92/85/EEC)
  - **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.
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### 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**  
H271 May cause fire or explosion; strong oxidiser.  
H301 Toxic if swallowed.  
R22 Harmful if swallowed.  
R8 Contact with combustible material may cause fire.
- **Recommended restriction of use:** professional/industrial use only
- **Abbreviations and acronyms:**  
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  
ICAO: International Civil Aviation Organization  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent
- **Sources**  
IUCLID (International Uniform Chemical Information Database)  
International Chemical Safety Cards (ICSCs)
- **\* Data compared to the previous version altered.**