

Material Safety Data Sheet According to 91/155 EEC

Reviewed on 17.02.2005

* 1 Identification of substance:

- **Product details:** Reagent for water analysis
- **Product name:** Vario Chlorine Total-DPD F 10
- **Catalog number:** 251 414 **Model:** CI-3 TP
- **Supplier:**
 WTW Wissenschaftlich-Technische Werkstätten GmbH
 Dr.-Karl-Slevogt-Straße 1
 D-82362 Weilheim Tel.: +49(0)881 183-0 Internet: <http://www.WTW.com>
 Fax: +49(0)881 183-420 Tel.: +49(0)881 183-100 E-Mail: Info@WTW.com
- **Emergency information:**
 Poison Center Berlin, Germany
 Tel.: +49(0)30 19240

* 2 Composition/Data on components:

- **Description:** Mixture of the substances listed below with harmless additions.

· **Dangerous components:**

CAS: 6283-63-2	N,N-diethylbenzene-1,4-diammonium sulphate	☒ Xn; R 20/21/22-36 ≤ 2.5%
EINECS: 228-500-6		

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

3 Hazards identification

- **Hazard designation:** void
- **Information pertaining to particular dangers for man and environment**
 The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system**
 The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

* 4 First aid measures

- **General information** No special measures required.
- **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.
 Call a doctor immediately.
- **After swallowing**
 Drink copious amounts of water, induce vomiting.
 Seek medical treatment.
- **The following symptoms may occur:**
 allergic reactions
 After swallowing of large amounts:
 coughing

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sickness
vomiting
diarrhoea
cramps

* 5 Fire fighting measures

- **Suitable extinguishing agents**
CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
Use fire fighting measures that suit the environment.
 - **Special hazards caused by the material, its products of combustion or resulting gases:**
Formation of toxic gases is possible during heating or in case of fire.
Phosphorus oxides (P_xO_x)
 - **Protective equipment:**
Wear self-contained breathing apparatus.
Wear full protective suit.
 - **Additional information**
Ambient fire may liberate hazardous vapours.
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.
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* 6 Accidental release measures

- **Person-related safety precautions:**
Use breathing protection against the effects of fumes/dust/aerosol.
Avoid causing dust.
 - **Measures for environmental protection:** Do not allow product to reach sewage system or water bodies.
 - **Measures for cleaning/collecting:**
Collect mechanically.
Ensure adequate ventilation.
 - **Additional information:** No dangerous materials are released.
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* 7 Handling and storage

- **Handling**
 - **Information for safe handling:** No special measures required.
 - **Information about protection against explosions and fires:** Protect from heat.
 - **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 under dry conditions.
Protect from humidity and keep away from water.
Protect from the effects of light.
 - **Storage class** Not required.
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* 8 Exposure controls and personal protection

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

Components with limit values that require monitoring at the workplace:
1330-43-4 disodium tetraborate, anhydrous
OES (Great Britain) Long-term value: 1 mg/m ³

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- **Additional information:** The lists that were valid during the compilation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures** Do not eat, drink or smoke while working.
- **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
- **Recommended filter device for short term use:** Filter P1
- **Protection of hands:** Preventive skin protection by use of skin-protecting agents is recommended.
- **Material of gloves**
Recommended thickness of the material: ≥ 0.11 mm
nitrile rubber, NBR
Nitrile
- **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 ≥ 6 (480 min)
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing.

* 9 Physical and chemical properties:

· Form:	Powder
· Colour:	White
· Odour:	Odourless
· Melting point/Melting range:	Not determined
· Boiling point/Boiling range:	1330°C
· Flash point:	Not applicable
· Self-inflammability:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive.
· Density	Not determined
· Solubility in / Miscibility with Water:	Soluble
· pH-value (12.3 g/l) at 20°C:	6.3
· Solvent content:	
Organic solvents:	0.0 %
· Solids content:	100.0 %

* 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:** see chapter 5

* 11 Toxicological information

- **Acute toxicity:** Quantitative data on the toxicity of the preparation are not available.

LD/LC50 values that are relevant for classification:		
7681-11-0 potassium iodide		
Oral	LD50	2779 mg/kg (rat)
1330-43-4 disodium tetraborate, anhydrous		
Oral	LD50	709 mg/kg (human)

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		2660 mg/kg (rat)
6283-63-2 N,N-diethylbenzene-1,4-diammonium sulphate		
Oral	LD50	497 mg/kg (rat)
10043-35-3 boric acid, crude natural, containing not more than 85 per cent of H3BO3 calculated on the dry weight		
Oral	LD50	2660 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rat)
6381-92-6 Ethylenediaminetetraacetic acid disodium salt		
Oral	LD50	> 2000 mg/kg (rat)

- **Primary irritant effect:**

- **on the eye:** Irritant effect.

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

- **Additional toxicological information:**

The product is not subject to classification according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

The usual precautionary measures should be adhered to general rules for handling chemicals.

* 12 Ecological information:

- **Information about elimination (persistence and degradability):**

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

- **Behaviour in environmental systems:**

10043-35-3 boric acid, crude natural, containing not more than 85 per cent of H3BO3 calculated on the dry weight

log P(o/w) 0.76 (25°C) (.)

- **Mobility and bioaccumulation potential:**

Phosphates and/or nitrogen compounds: may contribute to the eutrophication of water supplies

- **Ecotoxic effects:**

- **Acquatic toxicity:**

7681-11-0 potassium iodide

Daphnia EC50 2.7 mg/l/24h (Daphnia magna)

1330-43-4 disodium tetraborate, anhydrous

LC 50 807 mg/l (fish)

10043-35-3 boric acid, crude natural, containing not more than 85 per cent of H3BO3 calculated on the dry weight

EC50 133 mg/l/48h (Daphnia magna)

6381-92-6 Ethylenediaminetetraacetic acid disodium salt

LC50 159 mg/l/96h (Lepomis macrochirus)

~ 320 mg/l/96h (Poecilia reticulata)

- **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.

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

* 13 Disposal considerations

- **Product:**

- **Recommendation** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **European waste catalogue**

16 05 09 discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

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- **Uncleaned packagings:**
 - **Recommendation:** Disposal must be made according to official regulations.
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* 14 Transport information

· ADR/GGVSE: .
· IMDG/GGVSee: · EMS-Number:
· ICAO/IATA:

- **Transport/Additional information:** Not dangerous according to the above specifications.
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* 15 Regulatory information

- **Designation according to EC guidelines:**

Observe the normal safety regulations when handling chemicals

The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials (GefStoffV).

- **Special designation of certain preparations:**

Safety data sheet available for professional user on request.

* 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 R-phrases**

20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

36 Irritating to eyes.

- **Department issuing data specification sheet:** Department TSS; Dr. Manfred Kaul

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