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## HATENBOER - WATER

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# MATERIAL SAFETY DATA SHEET

According to EC-directive 93/112/EC

## DPD FREE CHLORINE REAGENT

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Date : 9 August 2002  
Revision of : -

## 1 IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

### Identification of the substance

Product label name : DPD Free Chlorine Reagent  
Formula : n.a. ECDIN-nr :  
CAS-nr : n.a. HAZCHEM-nr :  
EU-catalogue nr : EINECS/ELINCS-nr :  
RTECS-nr :  
NFPA-nr :  
  
Molecular weight :  
Product type :

### Identification of the company

Company : Hatenboer-Water b.v.  
P.O. Box 6013  
3002 AA ROTTERDAM  
Phone : +31 (0)10 – 409 12 00  
Fax : +31 (0)10 – 409 12 10

### Alarm numbers

In case of emergency : Nationaal Vergiftigingen Informatie Centrum (National Poisoning Information Centrum)  
Phone : +31 (0)30 - 274 88 88  
(Only for attending medical advise in case of poisoning)  
  
Police, Fire department & Ambulance : Phone : 112 (in The Netherlands)

## 2 COMPOSITION/INFORMATION ON ACTIVE INGREDIENTS

	Chemical name	CAS-nr	EEC-nr	% (w/w)	Symbol(s)	R-phrase(s)
1	Salt of N,N-Diethyl-p-Phenvlenediamine	-	-	1.0-5.0	n.a.	n.a.
2	Carboxylate Salt	-	-	55.0-65.0	n.a.	n.a.
3	Sodium Phosphate, Dibasic	7782-85-6	2314487	30.0-40.0	n.a.	n.a.
4	Ethylenediaminetetraacetic acid,disodium salt	6381-92-6	2053583	1.0-10.0	n.a.	n.a.

## 3 HAZARDS IDENTIFICATION

### Emergency Overview

Appearance : White or light pink powder  
Odour : None  
EU-symbol : Not applicable  
R-phrases : Not applicable

### HMIS

Health : 2  
Flammability : 1  
Reactivity : 0  
Protective Equipment : X-see protective equipment, Section 8

**Potential Health Effects**

Eye contact (EC)	: May cause irritation
Skin contact (EC)	: May cause irritation May cause allergic reaction
Skin absorption (EC)	: None reported
Target organs (SA E)	: None Reported
Ingestion (EC)	: DPD LD <sub>50</sub> studies revealed decreased locomotor activity, depressed respiration, muscle spasms, loss of righting reflex and death. Autopsies revealed ulcerated stomach, enteritis, gas and congested lungs.
Target organs (Ing E)	: None reported
Inhalation	: May cause: respiratory tract irritation. Effects similar to those of ingestion
Target organs (Inh E)	: Non reported
Medical conditions aggravated	: Allergy or sensitivity to salts of N,N-Diethyl-p-phenylenediamine Pre-existing: Eye conditions, Skin conditions, Respiratory conditions
Chronic Effects	: DPD may cause allergic skin reactions in some people causing severe skin rashes and itching.
Cancer / Reproductive Toxicity Information	: This product does NOT contain any IARC listed chemicals.
Additional Cancer Reproductive Toxicity Information	: None reported
Toxicologically Synergistic Products	: None reported

**4 FIRST AID MEASURES**

Eye Contact	: Immediately flush eyes with water for 15 minutes Call physician
Skin contact (First Aid)	: Wash skin with soap and plenty of water Call physician if irritation develops
Ingestion (First Aid)	: Give 1-2 glasses of water Call physician immediately Never give anything by mouth to an unconscious person
Inhalation	: Remove to fresh air

**5 FIRE-FIGHTING MEASURES**

Flammable properties	: Can burn in fire, releasing toxic vapours
Hazardous combustion products	: Toxic fumes of: carbon monoxide, carbon dioxide, phosphorus oxides
Fire / Explosion hazards	: None reported
Static discharge	: None reported
Mechanical impact	: None reported
Extinguishing media	: Use media appropriate to surrounding fire conditions
Fire fighting instruction	: As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

## 6 ACCIDENTAL RELEASE MEASURES

Spill response notice	:	Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special instructions for disposal assistance.
Containment technique	:	Stop spilled material from being released to the environment
Clean-up technique	:	Scoop up spilled material into a large beaker and dissolve with water. Flush reacted material to the drain with a large excess of water. Decontaminate the area of the spill with a soap solution.
Evacuation procedure	:	Evacuate as needed to perform spill clean-up If conditions warrant, increase the size for the evacuation.
D.O.T. Emergency Response Guide Number	:	Not applicable

## 7 HANDLING AND STORAGE

Handling	:	Avoid contact with eyes, skin and clothing Do not breathe dust Wash thoroughly after handling Maintain general industrial hygiene practices when using this product
Storage	:	Store between 10 °C and 25 °C. Protect from: light moisture heat

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	:	Have an eyewash station nearby Have a safety shower nearby Use general ventilation to minimize exposure to mist, vapour or dust Maintain general industrial hygiene practices when using this product
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### Personal Protective Equipment

Eye protection	:	Safety glasses with top and side shields
Skin protection	:	Disposable latex gloves Lab coat
Inhalation protection	:	Adequate ventilation
Precaution measures	:	Avoid contact eyes, skin and clothing Do not breathe dust Wash thoroughly after handling Protect from light, moisture heat
TLV	:	Not established
PEL	:	Not established

## 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Powder
Physical state	: Solid
Colour	: White or light pink
Odour	: None
pH-value	: of 1% soln. = 6,35 @ 25 °C
Vapour pressure	: Not applicable
Vapour density (air=1)	: Not applicable
Boiling point/range	: Not applicable
Melting point/range	: 110 °C decomp
Flash point	: Not applicable
Method	: Not applicable
Auto ignition temperature	: Not determined
Flammability limits	:
Lower Explosion Limits	: Not applicable
Upper Explosion Limits	: Not applicable
Specific gravity (water=1)	: 1.76
Evaporation Rate (water=1)	: Not applicable
Volatile Organic Compounds	:
Content	: Not applicable
Partition Coefficient	:
(n-octanol/water)	: Not applicable
Solubility in water	: Soluble
Solubility in acid	: Soluble
Solubility in other solvents	: Not determined
Metal Corrosively	:
Steel	: Not determined
Aluminium	: Not determined

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## 10 STABILITY AND REACTIVITY

Chemical stability	: Stable when stored under proper conditions
Conditions to Avoid	: Exposure to light. Excess moisture Heating to decomposition
Reactivity / Incompatibility	: None reported
Hazardous decomposition	: Heating to decomposition releases toxic and/or corrosive fumes of: carbon dioxide, carbon monoxide, phosphorus oxides
Hazardous polymerisation	: Will not occur

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## 11 TOXICOLOGICAL INFORMATION

### Product toxicological data

LD <sub>50</sub>	: None reported
LC <sub>50</sub>	: None reported
Dermal toxicity data	: None reported
Skin and eye irritation data	: None reported
Mutation data	: None reported
Reproductive effects data	: None reported

Ingredient toxicological data : Salt of DPD Oral rat LD<sub>50</sub> = 970 mg/kg  
Sodium phosphate dibasic Oral Rat LD<sub>50</sub> = 17 g/kg  
ECTA Disodium Salt Oral Rat LD<sub>50</sub> = 2000 mg/kg

This product does NOT contain any IARC listed chemicals

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## 12 ECOLOGICAL INFORMATION

Product ecological information : No ecological data available for this product  
Ingredient ecological information : No ecological data available for the ingredients of this product

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## 13 DISPOSAL CONSIDERATIONS

Special instructions (disposal) : Dilute 3 to 5 times the volume with cold water.  
Open cold water tap completely, slowly pour the material to the drain.  
Allow cold water to run for 5 minutes to completely flush the system.

Empty containers : Rinse three times with an appropriate solvent.  
Dispose of empty container as normal trash

NOTICE (disposal) : These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information.

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## 14 TRANSPORT INFORMATION

UN-Number : -

### Land transport

ADR class	: -	Packing group	: -
RID class	: -	Substance	
Hazard identification n°	: -	identification n°	: -
TREM-Card n°	: -	Packing group	: -
Proper shipping name	: Not currently regulated		
National relations	: -		
Other information	: -		

### Sea transport

IMO/IMDG code	: -	Packing group	: -
		EMS	: -
Marine pollutant	: -	MFAG	: -
Proper shipping name	: Not currently regulated		
Other information	: -		

### Air transport

IATA/ICAO-DGR Class	: -	Packing group	: -
Proper shipping name	: Not currently regulated		
Other information	: -		

Above mentioned regulations are valid on the revision date as listed in this Material Safety Data Sheet. Due to possible changes in transport regulation for dangerous materials, we advise you to, check the validity at your own transport organisation.

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## 15 REGULATORY INFORMATION

Product label name	:	DPD Free Chlorine Reagent Labelling according to EC-directives
Symbol(s)	:	-
R(isk) phrase(s)	:	-
S(afety) phrase(s)	:	-
Other information	:	BAG T Number: 611484 Poison class: 4
EEC-nr	:	-

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## 16 OTHER INFORMATION

Information complied in August 2002.

Intended use : Determination of Free Chlorine

All information concerning our product is supplied to the best of our knowledge and believed to be reliable. However, no warranty is made, either expressed or implied, regarding its accuracy or the result to be obtained from the use of the information. It remains the user's responsibility to determine the safety, toxicity and suitability for his own use.

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