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**SAFETY DATA SHEET**

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

## 1.1 Product identifier

- Datasheet Number: SP753 Version 1.0.0
- Product Name: DPD No.1 Photometer
- Product Description: Photometer Tablets (Free Chlorine/Bromine)

## 1.2 Relevant identified uses of the substance or mixture and uses advised against

- Use of the substance/mixture: Reagent for water analysis
- Use advised against: No information available

## 1.3 Details of the supplier of the safety data sheet

- Name of Supplier: Total Pool Chemicals Ltd
- Address of Supplier: Unit 1-5 , Pool Bank Business Park  
High Street, Tarvin  
Chester  
UK  
CH3 8JH
- Telephone: +44 (0)1829 740290
- Email: sales@totalpool.co.uk

## 1.4 Emergency telephone number

- +44 (0)1829 740290 (Office Hours)

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**SECTION 2: Hazards identification**

## 2.1 Classification of the substance or mixture

- Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]: Eye Irrit. 2, H319
- Additional information: For full text of Hazard- and EU Hazard-statements: see section 16

## 2.2 Label elements



- Signal Word: Warning
- Hazard statements  
H319 - Causes serious eye irritation.
- Precautionary statements  
P102 - Keep out of reach of children.  
P264 - Wash hands thoroughly after handling.  
P280 - Wear eye/face protection  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 - If eye irritation persists: Get medical advice/attention.
- Supplemental Hazard information (EU)  
None

## 2.3 Other hazards

- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

Created: 31 March 2021

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**SECTION 2: Hazards identification (....)**

- Does not contain any substances with endocrine disrupting properties
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**SECTION 3: Composition/information on ingredients**

## 3.1 Substances

- Not applicable

## 3.2 Mixtures

- Contains the following hazardous ingredients or ingredients with a workplace exposure limit:

Chemical Name	Conc.	CAS No.	EC No.	Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]	SCL/ M-Factor/ ATE	REACH Registration Number	WEL/ OEL
Sodium carbonate	< 10%	497-19-8	207-838-8	Eye Irrit. 2, H319	-	01-2119485498-19-XXXX	No
Citric acid	< 10%	77-92-9	201-069-1	Eye Irrit. 2, H319	-	01-2119457026-42-XXXX	No
Adipic acid	< 5%	124-04-9	204-673-3	Eye Irrit. 2, H319	-	01-2119457561-38-XXXX	No
N,N-diethylbenzene-1,4-diammonium sulphate	< 2%	6283-63-2	228-500-6	Acute Tox. 4, H302	-	-	No

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**SECTION 4: First aid measures**

Rescuers should put on approved personal protective equipment (PPE) before administering first aid

Rescuers should take suitable precautions to avoid becoming casualties themselves

## 4.1 Description of first aid measures

- Contact with eyes
  - If substance has got into eyes, immediately wash out with plenty of water for several minutes
  - Irrigate eyes thoroughly whilst lifting eyelids
  - Remove contact lenses, if present and easy to do. Continue rinsing.
  - If eye irritation persists: Get medical advice/attention.
- Contact with skin
  - Gently wash with plenty of soap and water.
  - If skin irritation occurs: Get medical advice/attention.
- Ingestion
  - Rinse mouth with water (do not swallow)
  - Give plenty of water to drink
  - Do NOT induce vomiting.
  - When in doubt or symptoms persist, seek medical attention
- Inhalation
  - If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
  - IF exposed or concerned: Get medical advice/attention.

## 4.2 Most important symptoms and effects, both acute and delayed

- Contact with eyes
  - Causes redness and irritation
- Contact with skin
  - No information available

Created: 31 March 2021

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**SECTION 4: First aid measures (....)**

- Ingestion  
No information available
- Inhalation  
No information available

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

- Treat symptomatically
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**SECTION 5: Firefighting measures**

## 5.1 Extinguishing media

- Suitable extinguishing media: Dry powder; carbon dioxide; alcohol resistant foam
- Unsuitable extinguishing media: High volume water jet

## 5.2 Special hazards arising from the substance or mixture

- Decomposition products may include oxides of nitrogen, sulphur and carbon
- Decomposition products may include phosphorus oxides

## 5.3 Advice for firefighters

- Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents
  - If dust is formed, wear approved dust mask
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**SECTION 6: Accidental release measures**

## 6.1 Personal precautions, protective equipment and emergency procedures

- No action shall be taken involving any personal risk or without suitable training
- Only trained and authorised personnel should carry out emergency response
- Personal precautions for non-emergency personnel: Do not breathe dust; Wear protective clothing as per section 8; Wash thoroughly after handling.
- Personal precautions for emergency responders: Avoid formation of dust; Do not breathe dust; Wear suitable protective clothing, eye/face protection and gloves; Wash thoroughly after handling.

## 6.2 Environmental precautions

- Do not empty into drains
- If contamination of drainage systems or water courses is unavoidable, immediately inform appropriate authorities

## 6.3 Methods and material for containment and cleaning up

- Damp down to avoid dust generation
- Remove by mechanical means
- Collect as much as possible in clean container for reuse or disposal
- Seal containers and label them
- Remove contaminated material to safe location for subsequent disposal
- Seek expert advice for removal and disposal of all contaminated materials and wastes

## 6.4 Reference to other sections

- See section(s): 7, 8 & 13
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**SECTION 7: Handling and storage**

## 7.1 Precautions for safe handling

- Minimize dust generation and accumulation
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Created: 31 March 2021

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**SECTION 7: Handling and storage (....)**

- Provide appropriate exhaust ventilation at places where airborne dust is generated
- No respiratory protection is needed during normal handling, if dust is formed, wear approved dust mask
- Avoid contact with eyes
- Wear protective clothing as per section 8
- Do not eat, drink or smoke when using this product.
- Use good personal hygiene practices
- Wash thoroughly after handling.
- Eyewash bottles should be available
- Contaminated clothing should be laundered before reuse

## 7.2 Conditions for safe storage, including any incompatibilities

- Keep in a cool, dry, well ventilated place
- Keep away from food, drink and animal feedingstuffs
- Incompatible with acid
- Incompatible with strong oxidizing substances

## 7.3 Specific end use(s)

- Reagent for water analysis

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**SECTION 8: Exposure controls/personal protection**

## 8.1 Control parameters

- If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.  
Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace exposure - Measurement of exposure by inhalation to chemical agents - Strategy for testing compliance with occupational exposure limit values). European Standard EN 14042 (Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents). European Standard EN 482 (Workplace exposure. General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
- The UK HSE (EH40) recommends the following limits for dusts: 10 mg/m<sup>3</sup> (8hr TWA) total inhalable dust; 4 mg/m<sup>3</sup> (8hr TWA) total respirable dust
- Sodium carbonate
  - DNEL (inhalational) 10 mg/m<sup>3</sup> Industry, Long Term, Local Effects
  - DNEL (inhalational) 10 mg/m<sup>3</sup> Consumer, Long Term, Local Effects
  - DNEL (inhalational) 10 mg/m<sup>3</sup> Consumer, Acute/Short Term, Local Effects
- Citric acid
  - PNEC aqua (freshwater) 440 µg/L
  - PNEC aqua (marine water) 44 µg/L
  - PNEC (STP) 1 g/L
  - PNEC sediment (freshwater) 34.6 mg/kg
  - PNEC sediment (marine water) 3.46 mg/kg
  - PNEC terrestrial (soil) 33.1 mg/kg
- Adipic acid
  - DNEL (inhalational) 74.1 mg/m<sup>3</sup> Industry, Long Term, Systemic Effects
  - DNEL (dermal) 21 mg/kg (bw/day) Industry, Long Term, Systemic Effects
  - DNEL (inhalational) 13 mg/m<sup>3</sup> Consumer, Long Term, Systemic Effects
  - DNEL (dermal) 7.5 mg/kg (bw/day) Consumer, Long Term, Systemic Effects
  - DNEL (oral) 7.5 mg/kg (bw/day) Consumer, Long Term, Systemic Effects
  - PNEC aqua (freshwater) 126 µg/L
  - PNEC aqua (intermittent releases, freshwater) 460 µg/L
  - PNEC aqua (marine water) 12.6 µg/L
  - PNEC sediment (freshwater) 474 µg/kg
  - PNEC sediment (marine water) 47.4 µg/kg

Created: 31 March 2021

## SECTION 8: Exposure controls/personal protection (....)

PNEC terrestrial (soil) 20.8 µg/kg

- N,N-diethylbenzene-1,4-diammonium sulphate  
No exposure limits have been set for this substance

### 8.2 Exposure controls

- Selection and use of personal protective equipment should be based on a risk assessment of exposure potential
- Engineering controls  
Ensure adequate ventilation  
Provide appropriate exhaust ventilation at places where airborne dust is generated
- Respiratory protection  
No respiratory protection is needed during normal handling, if dust is formed, wear approved dust mask  
Use type FFP1 or FFP2 (EN 143) dust masks
- Eye/face protection  
Wear safety glasses approved to standard EN 166.
- Skin protection  
Wear suitable protective clothing  
Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.  
The selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Breakthrough time is dependent on the characteristics of the brand of glove used and the supplier should be consulted.  
Nitrile rubber are recommended
- Thermal hazards  
Not applicable
- Hygiene measures  
Do not eat, drink or smoke when using this product.  
Use good personal hygiene practices  
Wash thoroughly after handling.  
Contaminated work clothing should not be allowed out of the workplace.  
Contaminated clothing should be laundered before reuse  
Eyewash bottles should be available
- Environmental exposure controls  
Do not empty into drains



## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- Physical state: Solid (tablets)
- Colour: White
- Odour: None
- Melting point/freezing point: No information available
- Boiling point or initial boiling point and boiling range: Not applicable
- Flammability: Not flammable
- Lower and upper explosion limit: Not applicable
- Flash point: Not applicable

Created: 31 March 2021

## SECTION 9: Physical and chemical properties (....)

- Auto-ignition temperature: No information available
- Decomposition temperature: No information available
- pH: 6.2 - 6.5 @ 15 g/L
- Kinematic viscosity: Not applicable
- Solubility: Soluble in water
- Partition coefficient n-octanol/water (log value): No information available
- Vapour pressure: Not applicable
- Density and/or relative density: No information available
- Relative vapour density: Not applicable
- Particle characteristics: No information available

### 9.2 Other information

- No information available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

- No information available

### 10.2 Chemical stability

- Considered stable under normal conditions

### 10.3 Possibility of hazardous reactions

- No information available

### 10.4 Conditions to avoid

- No information available

### 10.5 Incompatible materials

- Incompatible with acid
- Incompatible with strong oxidizing substances

### 10.6 Hazardous decomposition products

- Decomposition products may include oxides of nitrogen, sulphur and carbon
- Decomposition products may include phosphorus oxides

## 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

#### Substances

Chemical Name	LD <sub>50</sub> (oral, rat)	LC <sub>50</sub> (inhalation, rat)	LD <sub>50</sub> (dermal, rabbit)
Sodium carbonate	2 800 mg/kg	(2 h) 2.3 mg/L	2 000 mg/kg
Citric acid	5 400 mg/kg (mouse)	No data available	2 000 mg/kg (rat)
Adipic acid	5 560 mg/kg	LC <sub>50</sub> (4 h) 7.7 mg/L	LD <sub>50</sub> 7 940 mL/kg
N,N-diethylbenzene-1,4-diammonium sulphate	497 mg/kg	No data available	No data available

- Skin corrosion/irritation  
Based on available data, the classification criteria are not met

Created: 31 March 2021

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**SECTION 11: Toxicological information (....)**

- Serious eye damage/irritation  
Causes serious eye irritation.  
Classification based on calculation and concentration thresholds
- Respiratory or skin sensitisation  
Based on available data, the classification criteria are not met
- Germ cell mutagenicity  
No evidence of mutagenic effects
- Carcinogenicity  
No evidence of carcinogenic effects
- Reproductive toxicity  
No evidence of reproductive effects

## Substances

Chemical Name	NOAEL (oral, rat)	NOAEC (inhalation, rat)	NOAEL (dermal, rat)
Adipic acid	750 mg/kg bw/day (Effect on fertility)	No data available	No data available

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

## Substances

Chemical Name	NOAEL (oral, rat)	NOAEC (inhalation, rat)	NOAEL (dermal, rat)
Sodium carbonate	No data available	No data available	No data available
Citric acid	No data available	No data available	No data available
Adipic acid	750 mg/kg bw/day	No data available	No data available
N,N-diethylbenzene-1,4-diammonium sulphate	No data available	No data available	No data available

- Aspiration hazard  
Based on available data, the classification criteria are not met
- Contact with eyes  
Causes redness and irritation
- Contact with skin  
No information available
- Ingestion  
No information available
- Inhalation  
No information available

## 11.2 Information on other hazards

- Does not contain any substances with endocrine disrupting properties

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**SECTION 12: Ecological information**

## 12.1 Toxicity

- Based on available data, the classification criteria are not met

Created: 31 March 2021

## SECTION 12: Ecological information (....)

### Substances

Chemical Name	LC <sub>50</sub> (fish)	EC <sub>50</sub> (aquatic invertebrates)	EC <sub>50</sub> (aquatic algae)
Sodium carbonate	(4 days) 300 mg/L	(48 h) 200 - 227 mg/L	No data available
Citric acid	(48 h) 440 - 760 mg/L	(24 h) 1.535 g/L	No data available
Adipic acid	LC <sub>50</sub> (4 days) 1 g/L	(48 h) 46 mg/L	(72 h) 64.5 mg/L
N,N-diethylbenzene-1,4-diammonium sulphate	No data available	No data available	No data available

#### 12.2 Persistence and degradability

- Some ingredients are biodegradable

### Substances

Chemical Name	Biodegradation
Citric acid	Readily biodegradable (100%) in water
Adipic acid	Readily biodegradable (100%) in water

#### 12.3 Bioaccumulative potential

- Low bioaccumulation potential

### Substances

Chemical Name	Bioaccumulation Factor (BCF)	Log Kow
Adipic acid	(aquatic/sediment) 3.16 L/kg ww	0.093

#### 12.4 Mobility in soil

- Highly soluble in water

### Substances

Chemical Name	Adsorption/desorption
Adipic acid	Koc 1.61

#### 12.5 Results of PBT and vPvB assessment

- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

#### 12.6 Endocrine disrupting properties

- No information available

#### 12.7 Other adverse effects

- No information available

## SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

- Disposal should be in accordance with local, state or national legislation
- Do not discharge into drains or the environment, dispose to an authorised waste collection point
- Do not reuse empty containers without commercial cleaning or reconditioning

#### 13.2 Classification

- The waste must be identified according to the List of Wastes (2000/532/EC)
- Hazardous Property Code(s): HP 4 Irritant

## SECTION 14: Transport information

Not classified as hazardous for transport



Created: 31 March 2021

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**SECTION 14: Transport information (....)**

- 14.1 UN number or ID number
- UN No.: Not applicable
- 14.2 UN proper shipping name
- Proper Shipping Name: Not applicable
- 14.3 Transport hazard class(es)
- Hazard Class: Not applicable
- 14.4 Packing group
- Packing Group: Not applicable
- 14.5 Environmental hazards
- Not applicable
- 14.6 Special precautions for user
- No information available
- 14.7 Maritime transport in bulk according to IMO instruments
- Not applicable
- 14.8 Road/Rail (ADR/RID)
- Proper Shipping Name: Not applicable
  - ADR UN No.: Not applicable
  - ADR Hazard Class: Not applicable
  - ADR Packing Group: Not applicable
  - Tunnel Code: Not applicable
- 14.9 Sea (IMDG)
- Proper Shipping Name: Not applicable
  - IMDG UN No.: Not applicable
  - IMDG Hazard Class: Not applicable
  - IMDG Pack Group.: Not applicable
- 14.10 Air (ICAO/IATA)
- Proper Shipping Name: Not applicable
  - ICAO UN No.: Not applicable
  - ICAO Hazard Class: Not applicable
  - ICAO Packing Group: Not applicable

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**SECTION 15: Regulatory information**

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- This safety data sheet is provided in compliance with REACH Regulation (EC) No 1907/2006 (as amended by Regulation (EU) 2020/878) and UK REACH
  - The GB Classification, Labelling and Packaging Regulation (GB CLP) applies in Great Britain
  - Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe



Created: 31 March 2021

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**SECTION 15: Regulatory information (....)**

- N,N-diethylbenzene-1,4-diammonium sulphate is listed in Annex III of REACH as # Suspected carcinogen: The Toolbox profiler 'Carcinogenicity (genotox and nongenotox) alerts by ISS' gives an alert for carcinogenicity # Suspected hazardous to the aquatic environment: EPA Daphnia Magna toxicity model in VEGA (Q)SAR platform predicts that the chemical has a 48h EC<sub>50</sub> of 1.82 mg/L (moderate reliability); Fish toxicity classification (SarPy/IRFMN) model in VEGA (Q)SAR platform predicts that the chemical is 'Toxic-3 (between 10 and 100 mg/l) (good reliability)'; Fish Acute Toxicity model (KNN/Read-Across) in VEGA (Q)SAR platform predicts that the chemical has a 96h LC<sub>50</sub> of 9.8 mg/L (moderate reliability) # Suspected mutagen: The Toolbox profiler 'DNA alerts for AMES, MN and CA by OASIS v.1.3' gives an alert for mutagenicity; The Toolbox profiler 'in vitro mutagenicity (Ames test) alerts by ISS' gives an alert for mutagenicity; The Toolbox profiler 'Protein binding alerts for Chromosomal aberration by OASIS v1.1' gives an alert for mutagenicity; CAESAR Mutagenicity model in VEGA (Q)SAR platform predicts that the chemical is Mutagen (EXPERIMENTAL value); ISS Mutagenicity model in VEGA (Q)SAR platform predicts that the chemical is Mutagen (moderate reliability); KNN Mutagenicity model in VEGA (Q)SAR platform predicts that the chemical is Mutagen (EXPERIMENTAL value); SARPY Mutagenicity model in VEGA (Q)SAR platform predicts that the chemical is Mutagen (EXPERIMENTAL value) # Suspected skin sensitiser: CAESAR skin sensitisation model in VEGA (Q)SAR platform predicts that the chemical is Sensitizer (moderate reliability)

## 15.2 Chemical safety assessment

- No information available

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**SECTION 16: Other information**

The statements made herein are based on our best present experience and are intended to describe product safety requirements. They should not therefore be considered as a warranty of specific properties.

Sources of data: Information from published literature and supplier safety data sheets

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

- Eye Irrit. 2, H319: Classification based on calculation and concentration thresholds

Text not given with phrase codes where they are used elsewhere in this safety data sheet:

- H302: Harmful if swallowed
- H319: Causes serious eye irritation.

## Acronyms

- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstracts Service
- DNEL: Derived No-Effect Level
- EC: European Community
- EC<sub>50</sub>: Effective Concentration, 50%
- GHS: Globally Harmonised System
- LC<sub>50</sub>: Lethal Concentration, 50%
- LD<sub>50</sub>: Lethal Dose, 50%
- NOAEC: No observed adverse effect concentration
- NOAEL: No observed adverse effect level
- OEL: Occupational Exposure Limit
- PBT: Persistent, Bioaccumulative and Toxic
- PNEC: Predicted No-Effect Concentration
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- SCL: Specific Concentration Limit
- vPvB: very Persistent and very Bioaccumulative
- WEL: Workplace Exposure Limit

--- end of safety datasheet ---

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