

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Disodium tetraborate	1330-43-4	TWA	1 mg/m <sup>3</sup>	UK, EH40 WEL - Workplace Exposure Limits
	Remarks	The substance is present in solution at less than 0.1% w/v concentration and is not expected to form dusts or aerosols in normal usage		

### 8.2 Exposure controls Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Body Protection

Impervious clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- Appearance Form: liquid
- Odour: no data available
- Odour Threshold: no data available
- pH: 9.2
- Melting point/freezing point: 0°C
- Initial boiling point and boiling range: 100°C
- Flash point: no data available
- Evaporation rate: no data available
- Flammability (solid, gas): not flammable
- Upper/lower flammability or explosive limits: no data available
- Vapour pressure: no data available
- Vapour density: no data available
- Relative density: 1.000 g/cm<sup>3</sup>
- Water solubility: soluble/miscible
- Partition coefficient: n-octanol/water: no data available
- Auto-ignition temperature: no data available
- Decomposition temperature: no data available
- Viscosity: no data available
- Explosive properties: no data available
- Oxidizing properties: no data available

### 9.2 Other safety information: no data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity: no data available

### 10.2 Chemical stability: Stable under recommended storage conditions

### 10.3 Possibility of hazardous reactions: no data available

### 10.4 Conditions to avoid: no data available

### 10.5 Incompatible materials: Sodium, Potassium, Acid anhydrides

### 10.6 Hazardous decomposition products

Other decomposition products - no data available In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

- Acute toxicity: no data available  
Skin corrosion/irritation: no data available  
Serious eye damage/eye irritation: no data available  
Respiratory or skin sensitisation: no data available  
Germ cell mutagenicity no data available  
Carcinogenicity  
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
Reproductive toxicity: no data available  
Specific target organ toxicity - single exposure: no data available  
Specific target organ toxicity - repeated exposure: no data

available

Aspiration hazard: no data available

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## SECTION 12: Ecological information

### 12.1 Toxicity no data available

### 12.2 Persistence and degradability no data available

### 12.3 Bioaccumulative potential no data available

### 12.4 Mobility in soil no data available

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects no data available

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods Product

Offer surplus and non-recyclable solutions to a licensed disposal company

Contaminated packaging

Dispose of as unused product

## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: - IMDG: - IATA: -

### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods

### 14.3 Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

### 14.4 Packaging group

ADR/RID: - IMDG: - IATA: -

### 14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

### 14.6 Special precautions for user no data available

## SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

Authorisations and/or restrictions on use

Disodium tetraborate CAS-No.: 1330-43-4

Candidate List of Substances of Very High Concern for Authorisation Toxic for reproduction (article 57c)

ED/30/2010

## 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

## SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H360FD May damage fertility. May damage the unborn child. Repr. Reproductive toxicity

Full text of R-phrases referred to under sections 2 and 3  
T Toxic

R60 May impair fertility

R61 May cause harm to the unborn child. Repr.Cat.2 Toxic to Reproduction Category 2 Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Malvern Panalytical and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.



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# ZETASIZER

## SAFETY DATA SHEET

### Malvern Zeta potential transfer standard ZTS1240 (10 syringes)

CCM0023-02  
10-2020

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supplier with details of the batch number and date of receipt.

#### Use of the Transfer Standard

ZTS1240 was introduced in January 2020 and replaces DTS1235. It is important to understand the differences between the two standards and use the appropriate test methodology for your system and transfer standard combination.

Full details of how to use the transfer standard are now provided at [www.malvernpanalytical.com/zts1240](http://www.malvernpanalytical.com/zts1240). Please visit this page and download the appropriate "How to use ZTS1240" for your system type prior to first use of this transfer standard. Methods and SOPs for use of the standard are also available on the same web page.

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

##### 1.1 Product identifiers

Product Name: ZTS1240 Zeta Potential Transfer Standard  
Part Number: ZTS1240

REACH No.: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration.

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

Identified uses: Laboratory chemicals

##### 1.3 Emergency telephone number

For local contact in your country please follow this link.  
<http://www.MalvernPanalytical.com/en/about-us/contact-us/>

In addition +44 (0) 1684 891800 (Hours 07:30-18:30, GMT/UCT time zone).

In the unlikely event of a medical situation you should get medical assistance first in your country and use this MSDS where requested.

#### SECTION 2: Hazards identification

##### 2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

##### 2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram none

Signal word none

Hazard statement(s) none

Precautionary statement(s) none

Supplemental Hazard Statements none

#### 2.3 Other hazards - none

#### SECTION 3: Composition/information on ingredients

##### 3.2 Mixtures

Synonyms: ZTS1240 Zeta Potential Transfer Standard

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
Disodium tetraborate	Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)	
CAS-No. 1330-43-4 EC-No. 215-540-4 Index-No. 005-011-00-4 Registration number 01-2119490790-32-XXXX	Repr. 1B; H360FD	<0.1 %

Hazardous ingredients according to Directive 1999/45/EC

Component	Classification	Concentration
Disodium tetraborate	Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)	
CAS-No. 1330-43-4 EC-No. 215-540-4 Index-No. 005-011-00-4 Registration number 01-2119490790-32-XXXX	T, Repr.Cat.2, R60 - R61	<0.1 %

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

#### SECTION 4: First aid measures

##### 4.1 Description of first aid measures

Consult a physician. Show this safety data sheet to the doctor in attendance.

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact, wash off with soap and plenty of water. Consult a physician.

In case of eye contact, flush eyes with water as a precaution.

If swallowed, never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

no data available

#### SECTION 5: Firefighting measures

##### 5.1 Extinguishing media Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

##### 5.2 Special hazards arising from the substance or mixture

Nature of decomposition products not known.

##### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

##### 5.4 Further information

no data available

#### SECTION 6: Accidental release measures

##### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

##### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

##### 6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

##### 6.4 Reference to other sections

For disposal see section 13.

#### SECTION 7: Handling and storage

##### 7.1 Precautions for safe handling

Avoid exposure - obtain special instructions before use. Avoid inhalation of vapour or mist. For precautions see section 2.2.

##### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

##### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

#### Introduction

The measurement of Zeta Potential or Mobility using the technique of Electrophoretic Light Scattering (ELS) is a first principals' measurement and therefore does not require calibration. It is however important to check correct operation of the test equipment by performing a Performance Validation on a regular basis.

ZTS1240 is a zeta potential transfer standard and is provided as a ready to use syringe for the sole purpose of instrument Performance Validation on the ELS capable Zetasizer range of instruments.

#### Storage

For short term storage (<1 week) store in a cool place (<20°C)

For longer term storage, store in a refrigerator (4°C – 8°C)

Do not freeze

Do not expose to high temperatures (>49°C)

#### Upon Receipt

Observe the temperature indicator on the outside of the box and ensure the standard has not been subject to temperatures above 49°C, indicated by three filled black circles on the temperature tell-tale. If the standard has been subject to high temperatures, please contact your