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MATERIAL SAFETY DATA SHEET			



# MATERIAL SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### 1.1 Product Identifier

Product Name: Ammonium test solution  $\leq 100$  mM  
Product Description: Solutions for testing ZP ammonium sensors  
Product Code: ZPCH 100-000-00151

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

Recommended Use: Use as laboratory reagent/R&D.  
Uses advised against: No information available.

### 1.3 Manufacture/Supplier

Zimmer & Peacock AS  
Address: Kjelleveien 21  
3125 Tønsberg  
Vestfold  
Norway  
Telephone: +47 95 22 12 34 (ZP)  
Email: evenzimmer@zimmerpeacock.com

**1.4 Emergency Telephone** +47 95 22 12 34 (ZP)

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## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Classification under GHS:

H290; Corrosive to metals, category 1

H315; Skin corrosion/irritation, category 2.

H319; Serious eye damage/eye irritation, category 2A.

### 2.2 Label elements

Hazard symbol:



Signal word:

Warning

Hazard statement:

H290 May be corrosive to metals.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Precautionary statement:

P234 Keep only in original container.

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

P302+P361+P354: IF ON SKIN: Take off Immediately all contaminated clothing. Immediately rinse with water for several minutes.

P305+P354+P338: IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P332+P317: IF SKIN irritation persists: Get emergency medical help.

P337+P317: IF EYE irritation persists: Get emergency medical help.

P390 Absorb spillage to prevent material damage.

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P406 Store in corrosive resistant/... container with a resistant inner liner.

Storage: No metal containers. Store cool. Keep container tightly closed.

Disposal: Dispose of waste in accordance with local authority requirements

### 2.3 Other Hazards

PBT: This product is not identified as a PBT/vPvB substance.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients to be disclosed according to regulations

Component	Cas-no	Content
Nitric acid	7697-37-2	< 10 %

### 4.1 First Aid Measures

General Advice: Use first aid treatment according to the nature of the injury. For further assistance, contact your local Poison Control Center. Show this safety data sheet to the doctor in attendance.

Eye Contact: Remove contact lenses and rinse with water as a precaution.

Skin Contact: Wash off with soap and plenty of water.

Inhalation: Move to fresh air.

Ingestion: Drink water (two glasses at most). Seek medical attention if feeling unwell

Production of First-Aiders: Use personal protective equipment. See Section 8 for more detail. Do not use mouth to mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask

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equipped with a one-way valve or other proper respiratory medical devices.

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

Immediate effects can be expected after short-term exposure: No information available.

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

Notes to Physician: No information available.

### 5. FIRE-FIGHTING MEASURES

#### 5.1 Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

#### 5.2 Specific Hazards Arising from the substance or mixture

Nitrogen oxides, carbon oxides, not combustible.

#### 5.3 Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions: Use personal protective equipment. Ensure adequate ventilation. Avoid breathing dust, vapors, mists, or gas.

#### 6.2 Environmental Precautions

Environmental Precautions: Do not discharge into drains.

#### 6.3 Method and Material for Containment and Cleaning Up

Methods for Containment: Prevent further leakage or spillage if safe to do so.

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Methods for Cleaning Up: Soak up with inert absorbent material. Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use.

Large spill: Stop flow of material. Dike the spilled material. Absorb in vermiculite, dry sand or each and place into containers. Dispose of properly.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for Safe Handling

Handling: To avoid risks to human health and the environment, comply with the instructions for use. Wear personal protective equipment.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Ensure adequate ventilation, especially in confined areas.

General hygiene considerations: Handle in accordance with good industrial hygiene and safety practice.

### 7.2 Conditions for Safe Storage, Including any Incompatibilities

Storage: No metal containers. Keep container tightly closed in a dry and well-ventilated place. Store in cool temperatures.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL): No information available

Predicted No Effect Concentration (PNEC): No information available

### 8.2 Exposure controls

#### Appropriate Engineering Controls

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Engineering Measures: General industrial hygiene practice.

**Individual protection measures, such as personal protective equipment**

Eye/face Protection: Wear chemical splash goggles. If splashes are likely to occur wear face-shield.

Skin and Body Protection: Wear protection gloves/clothing. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact. Dispose of contaminated gloves in accordance with applicable laws and good laboratory practices. Wash and dry hands.

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

Respiratory Protection: Respiratory protection not required.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties.**

- a) Physical State: Liquid
- b) Appearance: Clear, colorless
- c) Odor: No information available
- d) Odor Threshold: No information available
- e) pH Range: No information available
- f) Melting point/freezing point: No information available
- g) Boiling Point/Range: No information available
- h) Flash Point (High in °C): No information available
- i) Evaporation Rate: No information available



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- j) Flammability (solid, gas): No information available
- k) Flammability Limit in Air:
  - Upper flammability limit: No information available
  - Lower flammability limit: No information available
- l) Vapor pressure: No information available
- m) Vapor Density: No information available
- n) Specific Gravity: No information available
- o) Water Solubility: Fully miscible
- p) Solubility in other solvents: No information available
- q) Partition coefficient: No information available
- r) Autoignition Temperature: No information available
- s) Decomposition Temperature: No information available
- t) Kinematic Viscosity: No information available
- u) Dynamic Viscosity: No information available
- v) Explosive Properties: No information available
- w) Oxidizing Properties: No information available
- x) Softening Point: No information available
- y) VOC Content (%): No information available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No information known.

### 10.2 Chemical Stability

Stable under recommended storage conditions.

### 10.3 Explosion Data

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Product is not explosive.

#### 10.4 Possibility of Hazardous Reactions

None under normal storage conditions.

#### 10.5 Conditions to Avoid

No further relevant information available.

#### 10.6 Incompatible Materials

Strong oxidizing agents. Metals.

#### 10.7 Hazardous Decomposition Products

In the event of fire: see section 5.

### 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

Inhalation: No information available.

Eye Contact: No information available.

Skin Contact: No information available.

Ingestion: No information available.

#### 11.2 Acute Toxicity

No information available

#### 11.3 Information on Toxicological Effects

Symptoms: No information available

#### 11.4 Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization: No information available.

Mutagenic Effects: No information available.

Carcinogenicity: No information available



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Reproductive Effects: No information available.

STOT – single exposure: No information available.

STOT – repeated exposure: No information available.

Aspiration hazard: No information available.

### 11.5 Numerical measures of toxicity – Product Information

Unknown Acute Toxicity: No information available.

## 12. ECOLOGICAL INFORMATION

### 12.1 Ecotoxicity

No information available.

### 12.2 Persistence and Degradability

No information available.

### 12.3 Bioaccumulation/Accumulation

No information available.

### 12.4 Results of PBT and vPvB assessment

Not identified as a PBT/vPvB substance.

### 12.5 Other adverse effects

No information available.

### 12.6 Endocrine Disruptor Information

No information available.

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Disposal Instructions

Disposal should be in accordance with applicable regional, national and local laws and regulations.

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### 13.2 Waste Disposal Methods

Disposal should be in accordance with applicable regional, national and local laws and regulations.

### 13.3 Disposal of Packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

## 14. TRANSPORT INFORMATION

### 14.1 UN number

DOT: 3264

IMDG: 3264

IATA: 3264

### 14.2 UN proper shipping name

ADR/RID: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (nitric acid)

IMDG: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (nitric acid)

IATA: Corrosive liquid, acidic, inorganic, n.o.s. (nitric acid)

### 14.3 Transport hazard class(es)

DOT: 8

IMDG: 8

IATA: 8

### 14.4 Packaging group

DOT: III

IMDG: III

IATA: III

### 14.5 Environmental hazards

DOT: no

IMDG Marine pollutant: No

IATA: no

### 14.6 Special precautions for user:

No information available

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## 15. REGULATORY INFORMATION

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

No information available.

### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

## 16. OTHER INFORMATION

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Disclaimer:

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