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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: Caffeine buffer

Product Description: Buffer for dissolving and testing caffeine

Product Code: ZPCH 400-000-00723

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)

2. HAZARDS IDENTIFICATION

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2.1 Classification of the substance or mixture

Classification under GHS:

H290; Corrosive to metals, category 1

H314; Skin corrosion/irritation, category 1, 1A, 1B, 1C.

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.

H314 Causes severe skin burns and eye damage

H315 Causes skin irritation

H319 Causes serious eye irritation.

Precautionary statement:

P234 Keep only in original container.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

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

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Get emergency medical help.

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

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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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.

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

Storage:

No metal containers. 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
Sulfuric acid	7664-93-9	< 10 %

4. FIRST AID MEASURES

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.

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Eye Contact:	Immediately rinse with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Call ophthalmologist.
Skin Contact:	Take off contaminated clothing. Wash off with plenty of water. If skin irritation persists. Get emergency medical help.
Inhalation:	Move to fresh air.
Ingestion:	Rinse mouth. Do NOT induce vomiting. Get emergency medical help.
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 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

Sulfur oxides.

5.3 Protective Equipment and Precautions for Firefighters

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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.

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

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Storage: No metal containers. Keep container tightly closed and 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

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, only when vapors are generated.

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

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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 |
| 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 |

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- 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

Oxidizing agents.

10.2 Chemical Stability

Stable under recommended storage conditions.

10.3 Explosion Data

Product is not explosive.

10.4 Possibility of Hazardous Reactions

None under normal storage conditions.

Violent reactions: Alkali metals, water, ammonia, metals, acids

10.5 Conditions to Avoid

No further relevant information available.

10.6 Incompatible Materials

Metals. Animal and vegetable tissue

10.7 Hazardous Decomposition Products

In the event of fire: see section 5.

11. TOXICOLOGICAL INFORMATION

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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

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

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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.

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: 2796

IMDG: 2796

IATA: 2796

14.2 UN proper shipping name

ADR/RID: Sulphuric acid

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IMDG: Sulphuric acid

IATA: Sulphuric acid

14.3 Transport hazard class(es)

DOT: 8

IMDG: 8

IATA: 8

14.4 Packaging group

DOT: II

IMDG: II

IATA: II

14.5 Environmental hazards

DOT: no

IMDG Marine pollutant: No

IATA: no

14.6 Special precautions for user:

No information available

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.

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16. OTHER INFORMATION

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Disclaimer:

IMPORTANT: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.