Title:	**Safety Data Sheet Q-NADMED Blood**
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Approval date:	2023-04-04
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1. Product and Company Identification

1.1. **GSH product identifier:**

Q-NADMED Blood

Q-NAD Blood

1.2. **Other means of identification/Catalog number:**

IVD_001, Q-NADMED Blood NAD+ and NADH assay kit: quantitative assay kit for whole blood

IVD_001/MY, Q-NADMED Blood NAD+ and NADH assay kit: quantitative assay kit for whole blood

IVD_001_01_40, Q-NADMED Blood NAD+ assay kit: quantitative assay kit for whole blood (40 samples)

IVD_001_01_40/MY, Q-NADMED Blood NAD+ assay kit: quantitative assay kit for whole blood (40 samples)

IVD_001_01_80, Q-NADMED Blood NAD+ assay kit: quantitative assay kit for whole blood (80 samples)

IVD_001_01_80/MY, Q-NADMED Blood NAD+ assay kit: quantitative assay kit for whole blood (80 samples)

RUO_001, Q-NAD Blood NAD+ and NADH assay kit: quantitative assay kit for whole blood

RUO_002, Q-NAD Blood NAD+ assay kit: quantitative assay kit for whole blood

1.3. **Components:**

BUFFER A (Contains Ethanol), NAD+ stabilization reagent (contains Hydrochloric acid), NADH stabilization reagent (contains Sodium hydroxide), BUFFER C, Assay color reagent (contains Phenazine Ethosulfate, Thiazolyl Blue Tetrazolium Bromide), NAD+ and NADH Standard stocks, Positive control, Enzyme, Stop Solution (contains Sodium Dodecyl Sulfate).

1.4. **Application of the substance/the preparation:**

For *In Vitro* Diagnostic Use

For Research Use Only

1.5. **Manufacturer/Supplier:**

NADMED Ltd

Haartmaninkatu 4, bldg 14

00290 Helsinki

Finland

1.6. For product related questions call: NADMED Ltd, +358 (0) 44 098 8955

1.7. Emergency information: In case of a chemical emergency call Poison Control Center in Finland (Myrkytystietokeskus) tel.: +358 (0) 800 147 111; +358 (0) 9 471 977

2. Hazard identification

2. HAZARD IDENTIFICATION

2.1 Classification: Regulation, (EC) No. 1272/2008 [CLP/GSH].

Mixture contains Ethanol (40%<conc.<70%, volume ≤ 30ml

Classification for mixture at provided concentration:

H225 Flammable liquid (Category 2)

H319 Causes serious eye irritation

H317 May cause allergic skin reaction

2.2 Label Elements according to reduced labelling for volumes ≤ 125 ml

Pictogram: 

2.3 Signal word: Danger

2.4 Hazard statements: Causes skin irritation. Causes serious eye irritation. Flammable liquid and vapor.

2.5 Precautionary statements: P210, P280, P305+P351+P338 Keep away from open flames and other ignition sources. Wear protective gloves. Wear eye protection, face protection. Do not breathe vapors. Do not eat, drink or smoke when using this product. Collect spillage.

2.6 Response: If on skin: Wash with plenty of water. If skin irritation or rash occurs: get medical attention. Take off all contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing. If eye irritation persists, get medical attention. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water. In case of fire: Use water, dry chemical, CO2 or foam to extinguish.

2.7 Special hazards: None

3. INFORMATION ON INGREDIENTS

Extraction buffer A contains: Ethanol, Chemical formula C2H5OH

Volume: ≤ 30 ml

Contains	CAS No.	EC-No	Index -No	Content
Water	7732-18-5	231-791-2	NA	>30 %
Ethanol	64-17-5	200-578-6	603-002-00-5	<70 %

4. FIRST AID MEASURES

General advice: Show this product safety data sheet to the doctor in attendance.
If inhaled: After inhalation: fresh air.
In case of skin contact: take off immediately all contaminated clothing. Rinse skin with plenty of water.
In case of eye contact: rinse out with plenty of water. Remove contact lenses. Consult an ophthalmologist.
If swallowed: immediately make victim drink water (two glasses at most). Consult a physician.

5. FIRE FIGHTING MEASURES

5.1 Suitable extinguishing agents: dry chemical, water, carbon dioxide (CO2) dry powder

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Combustible

Pay attention to flashback

Development of hazardous combustion gases or vapors possible in the event of fire

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures: Avoid breathing vapors, mist, gas. Ensure adequate ventilation. Use appropriate personal protective equipment to prevent contamination of skin, eyes, and personal clothing.

6.2 Environmental Precautions: Prevent further spillage or leakage if safe to do so.

6.3 Methods and material for containment and cleaning up: Absorb liquid components with inert liquid-binding material. Pick up mechanically. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE of the compound in provided concentration and amount

7.1 Precautions for safe handling: Do not breathe vapors or mist. Use in a dry and well-ventilated working space. Avoid contact with eyes and skin. Use appropriate personal protective equipment to prevent contamination of skin, eyes, and personal clothing.

7.2 Conditions for safe storage, including incompatibilities: Store in a 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.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

OSHA Permissible Exposure Limits (PELs): OSHA PEL TWA - 1000ppm

ACGIH Threshold Limit Values (TLVs): ACGIH STEL - 1000ppm

8.1 Engineering Controls: Use in a well-ventilated working area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

8.2 Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

9. PHYSICAL AND CHEMICAL PROPERTIES of the compound in provided concentration and amount

Ethyl Alcohol 40%< conc. <70%

Appearance: Colorless Liquid

Molecular Weight: 46.069 g/mol

Molecular Formula: C2H5OH

pH: 7.0 at 10g/l at 20°C

Boiling Range: 81.5-83°C

Melting Point/Freezing Point: N/A

Flash Point: 72ºF/22.2°C

Specific Gravity/Relative Density: N/A

Odor: Vinous

Odor Threshold: N/A

Color: Colorless

Flammability (solid/gas): N/A

Vapor Density: N/A

Upper/Lower flammability or explosive limits: N/A

Vapor Pressure: N/A

Evaporation Rate: N/A

Partition Coefficient: n-octanol/water: N/A

Viscosity: N/A

Auto-ignition temperature: N/A

Solubility: Miscible in water.

Decomposition Temperature: N/A

10. STABILITY AND REACTIVITY of the compound in provided concentration and amount

Reactivity: N/A if stored in standard ambient conditions

Chemical Stability: Stable

Conditions of Stability/Instability: Instable with sources of ignition and open flame.

Stabilizers needed: None

Safety issue indicated by appearance change: N/A

Hazardous Reactions: N/A

Hazardous Polymerization: Does not occur

Conditions to avoid: Open flame.

Classes of Incompatible Materials: Strong oxidizers, Strong Acids, Strong Bases, Potassium dioxide, bromine pentafluoride, acetyl bromide, acetyl chloride, platinum, sodium.

Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (i.e. Carbon monoxide) may be released in a fire.

11. TOXICOLOGICAL INFORMATION of the compound in provided concentration and amount

Likely Routes of Exposure

Eyes: Irritation.

Skin: Irritation.

Inhalation: Dizziness, headache, nausea, narcosis.

Ingestion: May cause nausea, damage to gastrointestinal tract, liver, kidneys and cardiovascular system.

Acute Toxicity (Numerical Measures): N/A

Carcinogenicity (NTP, IARC, OSHA): Not listed as a carcinogen.

Comments: Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately.

12. ECOLOGICAL INFORMATION of the compound in provided concentration and amount

Ecotoxicity: N/A

Persistence and degradability: N/A

Bioaccumulation Potential (octanol-water partition coefficient, BCF): N/A

Mobility in the soil: N/A

Adverse Environmental Effects: N/A

13. DISPOSAL CONSIDERATIONS of the compound in provided concentration and amount

Recommended Disposal Containers: Check with your local waste authorities*

Recommended Disposal Methods: Solution in provided concentration and volume can be disposed in drains in ambient conditions.

Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.

Waste Stream: Consult your local or regional authorities.*

14. TRANSPORTATION INFORMATION

UN Number: UN1170

UN Proper Shipping Name: Ethanol Solutions

Transport Hazard Class(es): 3

Packing Group Number: III

Environmental Hazards (IMDG code): ADR/RID: No Marine Pollutant: No IATA: No

Transport in Bulk (IBC Code): N/A

Special Transport Precautions: N/A

15. REGULATIONS

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture: This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

National legislation:

Seveso III: Directive 2012/18/EU of the European: Flammable Liquids

Parliament and of the Council on the control of major-accident hazards involving dangerous

substances.

Other regulations

Take note of Dir 94/33/EC on the protection of young people at work.

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

16. OTHER INFORMATION

Notice to reader

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. To the best of our knowledge, information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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2. HAZARD IDENTIFICATION

2.1 Classification: Regulation, (EC) No. 1272/2008 [CLP/GSH].

Mixture contains Hydrochloric acid (< 0.5%), volume ≤10 ml – not a hazard substance at this concentration and amount

2.2 Label Elements

Pictogram: None

2.3 Signal word: None

2.4 Hazard statements: None.

2.5 Precautionary statements: None

2.6 Response: None

2.7 Special hazards: None

3. INFORMATION ON INGREDIENTS

NAD+ stabilization reagent contains: Hydrochloric acid, Chemical formula - HCl

Volume: ≤ 10 ml

Contains	CAS No.	EC-No	Index -No	Content
Water	7732-18-5	231-791-2	NA	>99.5%
Hydrochloric acid	7647-01-0	231-595-7	017-002-01-X	<0.5 %

4. FIRST AID MEASURES

General advice: Show this product safety data sheet to the doctor in attendance.
If inhaled: After inhalation: fresh air.
In case of skin contact: take off immediately all contaminated clothing. Rinse skin with plenty of water.
In case of eye contact: rinse out with plenty of water. Remove contact lenses. Consult an ophthalmologist.
If swallowed: Harmful if swallowed. Irritating to mouth, throat, and stomach. Rinse mouth with water. Consult a physician.

5. FIRE FIGHTING MEASURE

5.1 Suitable extinguishing agents: dry chemical, water, carbon dioxide (CO2) dry powder

5.2 Special hazards arising from the substance or mixture: Hydrogen Chloride gas

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures: Avoid breathing vapors, mist, gas. Ensure adequate ventilation. Use appropriate personal protective equipment to prevent contamination of skin, eyes, and personal clothing.

6.2 Environmental Precautions: Prevent further spillage or leakage if safe to do so. 6.3 Methods and material for containment and cleaning up: Absorb liquid components with inert liquid-binding material. Pick up mechanically. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling: Do not breathe vapors or mist. Use in a dry and well-ventilated working space. Avoid contact with eyes and skin. Use appropriate personal protective equipment to prevent contamination of skin, eyes, and personal clothing.

7.2 Conditions for safe storage, including incompatibilities: Store in a 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.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

OSHA PEL / NIOSH REL / ACGIH TLV: 5 ppm (7 mg/m3 as a ceiling limit)

EU Commission Directive 2000/39/EC: 8 hours – 5 ppm (8 mg/m3) / Short term10 ppm (15 mg/m3)

8.1 Engineering Controls: Use in a well-ventilated working area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

8.2 Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

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

9. PHYSICAL AND CHEMICAL PROPERTIES of the compound in provided concentration and amount

Appearance: Colorless Liquid

Molecular Weight: 36.45 g/mol

Molecular Formula: HCl

pH: 1-2

Boiling Range: N/A

Melting Point/Freezing Point: N/A

Flash Point: N/A

Specific Gravity/Relative Density: N/A

Odor: N/A

Odor Threshold: N/A

Color: Colorless

Flammability (solid/gas): N/A

Vapor Density: N/A

Upper/Lower flammability or explosive limits: N/A

Vapor Pressure: N/A

Evaporation Rate: N/A

Partition Coefficient: n-octanol/water: N/A

Viscosity: N/A

Auto-ignition temperature: N/A

Solubility: Miscible in water.

Decomposition Temperature: N/A

10. STABILITY AND REACTIVITY of the compound in provided concentration and amount

Reactivity: N/A

Chemical Stability: Stable under recommended handling and storage conditions

Hazardous Reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Classes of Incompatible Materials: amines, alkalis or metals such as copper, brass, zinc, potassium, and sodium.

Hazardous Decomposition Products: Products formed under fire conditions: toxic gases and vapors such as chlorine.

11. TOXICOLOGICAL INFORMATION of the compound in provided concentration and amount

Likely Routes of Exposure

Eyes: Irritation.

Skin: Irritation.

Inhalation: May be harmful. Destructive for mucous membranes.

Ingestion: May be harmful. Can cause burns.

Acute Toxicity (Numerical Measures): N/A

Carcinogenicity (NTP, IARC, OSHA): Not listed as a carcinogen.

12. ECOLOGICAL INFORMATION of the compound in provided concentration and amount

Ecotoxicity: N/A

Persistence and degradability: N/A

Bioaccumulation Potential (octanol-water partition coefficient, BCF): N/A

Mobility in the soil: N/A

Adverse Environmental Effects: N/A

13. DISPOSAL CONSIDERATIONS of the compound in provided concentration and amount

Recommended Disposal Containers: Check with your local waste authorities*

Recommended Disposal Methods: Solution in provided concentration and volume can be disposed in drains.

Special precautions: Dispose of small amounts of spilled material described in section 6.

14. TRANSPORTATION INFORMATION

In accordance with DOT: Not regulated for transport.

In accordance with IMDG: Not regulated for transport.

In accordance with IATA: Not regulated for transport.

In accordance with TDG: Not regulated for transport.

Further information: Not dangerous according to the above specifications.

15. REGULATIONS

This safety data sheet complies with the requirements of Regulation (EC) No. 2015/830

16. OTHER INFORMATION

Notice to reader

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. To the best of our knowledge, information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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2. HAZARD IDENTIFICATION

2.1 Classification: Regulation, (EC) No. 1272/2008 [CLP/GSH].

Mixture contains Sodium hydroxide (< 0.5%), volume ≤10 ml – not a hazardous substance at this concentration and volume

H290 May be corrosive to metals

2.2 Label Elements according to Reduced Labeling for volumes ≤ 125 ml

Pictogram: None

2.3 Signal word: Warning

2.4 Hazard statements: None.

2.5 Precautionary statements: None

2.6 Response: None

2.7 Special hazards: None

3. INFORMATION ON INGREDIENTS

NADH stabilization buffer contains: Sodium hydroxide, Chemical formula - NaOH

Volume: ≤ 10 ml

Contains	CAS No.	EC-No	Index -No	Content
Water	7732-18-5	231-791-2	NA	>99.5%
Sodium hydroxide	1310-73-2	215-185-5	011-002-00-6	<0.5 %

4. FIRST AID MEASURES

General advice: Show this product safety data sheet to the doctor in attendance.
If inhaled: After inhalation: fresh air.
In case of skin contact: take off immediately all contaminated clothing. Rinse skin with plenty of water.
In case of eye contact: rinse out with plenty of water. Remove contact lenses. Consult an ophthalmologist.
If swallowed: Harmful if swallowed. Irritating to mouth, throat, and stomach. Rinse mouth with water. Consult a physician.

5. FIRE FIGHTING MEASURES

5.1 Suitable extinguishing agents: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. For this mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture: Sodium oxides, ambient fire may liberate hazardous vapors.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures: Avoid breathing vapors, mist, gas. Ensure adequate ventilation. Use appropriate personal protective equipment to prevent contamination of skin, eyes, and personal clothing.

6.2 Environmental Precautions: Prevent further spillage or leakage if safe to do so.

6.3 Methods and material for containment and cleaning up: Absorb liquid components with inert liquid-binding material. Pick up mechanically. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling: Do not breathe vapors or mist. Use in a dry and well-ventilated working space. Avoid contact with eyes and skin. Use appropriate personal protective equipment to prevent contamination of skin, eyes, and personal clothing.

7.2 Conditions for safe storage, including incompatibilities: Store in a cool place in original bottle. 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.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Engineering Controls: Use in a well-ventilated working area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

8.2 Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

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

9. PHYSICAL AND CHEMICAL PROPERTIES of the compound in provided concentration and amount

Appearance: Colorless Liquid

Molecular Weight: 39.99 g/mol

Molecular Formula: HCl

pH: 11-12

Boiling Range: N/A

Melting Point/Freezing Point: N/A

Flash Point: N/A

Specific Gravity/Relative Density: N/A

Odor: N/A

Odor Threshold: N/A

Color: Colorless

Flammability (solid/gas): N/A

Vapor Density: N/A

Upper/Lower flammability or explosive limits: N/A

Vapor Pressure: N/A

Evaporation Rate: N/A

Partition Coefficient: n-octanol/water: N/A

Viscosity: N/A

Auto-ignition temperature: N/A

Solubility: Miscible in water.

Decomposition Temperature: N/A

10. STABILITY AND REACTIVITY of the compound in provided concentration and amount

Reactivity: N/A

Chemical Stability: Stable under recommended handling and storage conditions

Hazardous Reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Classes of Incompatible materials: metals

Hazardous Decomposition Products: Products formed under fire conditions: toxic gases and vapors.

11. TOXICOLOGICAL INFORMATION of the compound in provided concentration and amount

Likely Routes of Exposure

Eyes: May cause irritation.

Skin: May cause irritation.

Inhalation: May be harmful.

Ingestion: May be harmful.

Acute Toxicity (Numerical Measures): N/A

Carcinogenicity (NTP, IARC, OSHA): N/A

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Hazardous properties cannot be excluded, but are unlikely when the product is handled appropriately.

12. ECOLOGICAL INFORMATION of the compound in provided concentration and amount

Ecotoxicity: N/A

Persistence and degradability: N/A

Bioaccumulation Potential (octanol-water partition coefficient, BCF): N/A

Mobility in the soil: N/A

Adverse Environmental Effects: N/A

13. DISPOSAL CONSIDERATIONS of the compound in provided concentration and amount

Recommended Disposal Containers: Check with your local waste authorities*

Recommended Disposal Methods: Solution in provided concentration and volume can be disposed in drains.

Special precautions: Dispose of small amounts of spilled material described in section 6.

14. TRANSPORTATION INFORMATION

In accordance with DOT: Not regulated for transport.

In accordance with IMDG: Not regulated for transport.

In accordance with IATA: Not regulated for transport.

In accordance with TDG: Not regulated for transport.

Further information: Not dangerous according to the above specifications.

15. REGULATIONS

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

16. OTHER INFORMATION

H290 May be corrosive to metal

Notice to reader

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. To the best of our knowledge, information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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2. HAZARD IDENTIFICATION

2.1 Classification: Regulation, (EC) No. 1272/2008 [CLP/GSH].

Mixture contains Thiazolyl Blue Tetrazolium Bromide (concentration <0.15%), volume ≤ 10ml – not a hazardous substance at given concentration and amount

Classification for pure solid compound:

H315 Skin irritation

H319 Eye irritation

H335 May cause respiratory irritatio

H341 Suspected of causing genetic defects

2.2 Label Elements according to reduced labelling for volumes ≤ 125 ml

Pictogram: None

2.3 Signal word: Warning

2.4 Hazard statements: H341 Pure compound in solid form is suspected of causing genetic defects.

2.5 Precautionary statements: Wear protective gloves. Wear eye protection, face protection. Do not breathe vapors. Do not eat, drink, or smoke when using this product. Collect spillage.

2.6 Response: If on skin: Wash with plenty of water. If skin irritation or rash occurs: get medical attention. Take off all contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing. If eye irritation persists, get medical attention. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water. In case of fire: Use water, dry chemical, CO2 or foam to extinguish.

2.7 Special hazards: None

3. INFORMATION ON INGREDIENTS

Assay color reagent contains: Thiazolyl Blue Tetrazolium Bromide, Chemical formula C18H16BrN5S

Volume: 6 ml (2 x 3 ml)

Contains	CAS No.	EC-No	Index -No	Content
Water	7732-18-5	231-791-2	NA	>99.85 %
Thiazolyl Blue Tetrazolium Bromide	298-93-1	206-069-5	N/A	<0.15 %

4. FIRST AID MEASURES

General advice: Show this product safety data sheet to the doctor in attendance.
If inhaled: After inhalation: fresh air.
In case of skin contact: take off immediately all contaminated clothing. Rinse skin with plenty of water.
In case of eye contact: rinse out with plenty of water. Remove contact lenses. Consult an ophthalmologist.
If swallowed: immediately rinse mouth with water. Consult a physician.

5. FIRE FIGHTING MEASURES

5.1 Suitable extinguishing agents: water spray, foam, carbon dioxide (CO2) dry powder

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Nitrogen oxides

Sulfur oxides

Hydrogen bromide gas

Development of hazardous combustion gases or vapours possible in the event of fire

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Avoid breathing vapors, mist, gas. Ensure adequate ventilation. Use appropriate personal protective equipment to prevent contamination of skin, eyes, and personal clothing.

6.2 Environmental Precautions: Prevent further spillage or leakage if safe to do so.

6.3 Methods and material for containment and cleaning up: Absorb liquid components with inert liquid-binding material. Pick up mechanically. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE of the compound in provided concentration and amount

7.1 Precautions for safe handling: Do not breathe vapors or mist. Use in a dry and well-ventilated working space. Avoid contact with eyes and skin. Use appropriate personal protective equipment to prevent contamination of skin, eyes, and personal clothing.

7.2 Conditions for safe storage, including incompatibilities:

Recommended storage temperature -20 °C.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Engineering Controls: Use in a well-ventilated working area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

8.2 Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

9. PHYSICAL AND CHEMICAL PROPERTIES of the compound in provided concentration and amount

Appearance: Yellow Liquid

Molecular Weight: 414.32 g/mol

Molecular Formula: C18H16BrN5S

pH: N/A

Boiling Range: N/A

Melting Point/Freezing Point: N/A

Flash Point: N/A

Specific Gravity/Relative Density: N/A

Odor: N/A

Odor Threshold: N/A

Color: Yellow

Flammability (solid/gas): N/A

Vapor Density: N/A

Upper/Lower flammability or explosive limits: N/A

Vapor Pressure: N/A

Evaporation Rate: N/A

Partition Coefficient: n-octanol/water: N/A

Viscosity: N/A

Auto-ignition temperature: N/A

Solubility: Miscible in water.

Decomposition Temperature: N/A

10. STABILITY AND REACTIVITY of the compound in provided concentration and amount

Reactivity: N/A if stored in recommended conditions

Chemical Stability: Stable under recommended storage and handling conditions

Conditions of Stability/Instability: N/A

Hazardous Reactions: N/A

Conditions to avoid: N/A

Classes of Incompatible Materials: Strong oxidizers

Hazardous Decomposition Products: In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION of the compound in provided concentration and amount

Likely Routes of Exposure

Eyes: May cause irritation.

Skin: May cause irritation.

Respiratory system: May cause irritation.

Acute Toxicity (Numerical Measures): N/A

Additional information: To the best of our knowledge the chemical, physical and toxicological properties of this compound as solution of given concentration have not been thoroughly investigated. Hazardous properties cannot be excluded, but are unlikely when the product is handled appropriately.

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

12. ECOLOGICAL INFORMATION of the compound in provided concentration and amount

Ecotoxicity: N/A

Persistence and degradability: N/A

Bioaccumulation Potential (octanol-water partition coefficient, BCF): N/A

Mobility in the soil: N/A

Adverse Environmental Effects: N/A

13. DISPOSAL CONSIDERATIONS of the compound in provided concentration and amount

Recommended Disposal Containers: Check with your local waste authorities*

Recommended Disposal Methods: Solution in provided concentration and volume can be disposed in drains in ambient conditions.

Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.

Waste Stream: Consult your local or regional authorities.*

14. TRANSPORTATION INFORMATION

UN Proper Shipping Name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

15. REGULATIONS

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture: This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

16. OTHER INFORMATION

Notice to reader

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. To the best of our knowledge, information contained herein is accurate. However, neither the above-named

supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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2. HAZARD IDENTIFICATION

2.1 Classification: Regulation, (EC) No. 1272/2008 [CLP/GSH].

Mixture contains Phenazine Ethosulfate (concentration <0.5%), volume ≤ 10ml – not a hazardous substance at given concentration and amount

Classification for pure solid compound:

H315 Skin irritation
H319 Eye irritation

2.2 Label Elements according to reduced labelling for volumes ≤ 125 ml

Pictogram: None

2.3 Signal word: Warning

2.4 Hazard statements: None

2.5 Precautionary statements: Wear protective gloves. Wear eye protection, face protection.

2.6 Response: If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do not eat, drink or smoke when using this product. Collect spillage.

2.7 Special hazards: None

3. INFORMATION ON INGREDIENTS

Assay color reagent contains: Phenazine Ethosulfate, Chemical formula C16H18N2SO4

Volume: total 6 ml (2 x 3ml)

Contains	CAS No.	EC-No	Index -No	Content
Water	7732-18-5	231-791-2	NA	>99.5 %
Phenazine ethosulfate	10510-77-7	234-044-9	NA	<0.5 %

4. FIRST AID MEASURES

General advice: Show this product safety data sheet to the doctor in attendance.
If inhaled: After inhalation: fresh air.
In case of skin contact: take off immediately all contaminated clothing. Rinse skin with plenty of water.
In case of eye contact: rinse out with plenty of water. Remove contact lenses. Consult an ophthalmologist.
If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE FIGHTING MEASURES

5.1 Suitable extinguishing agents: use water spray, dry chemical or carbon dioxide

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Nitrogen oxides

Sulfur oxides

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Avoid breathing vapors, mist, gas. Ensure adequate ventilation. Use appropriate personal protective equipment to prevent contamination of skin, eyes, and personal clothing.

6.2 Environmental Precautions: Prevent further spillage or leakage if safe to do so.
6.3 Methods and material for containment and cleaning up: Absorb liquid components with inert liquid-binding material. Pick up mechanically. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE of the compound in provided concentration and amount

7.1 Precautions for safe handling: Do not breathe vapors or mist. Use in a dry and well-ventilated working space. Avoid contact with eyes and skin. Use appropriate personal protective equipment to prevent contamination of skin, eyes, and personal clothing.

7.2 Conditions for safe storage, including incompatibilities: Recommended storage temperature -20°C.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Engineering Controls: Use in a well-ventilated working area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

8.2 Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear.

9. PHYSICAL AND CHEMICAL PROPERTIES of the compound in provided concentration and amount

Appearance: Yellow Liquid

Molecular Weight: 334.39 g/mol

Molecular Formula: C16H18N2SO4

pH: N/A

Boiling Range: 100°C

Melting Point/Freezing Point: N/A

Flash Point: N/A

Specific Gravity/Relative Density: N/A

Odor: N/A

Odor Threshold: N/A

Color: Yellow

Flammability (solid/gas): N/A

Vapor Density: N/A

Upper/Lower flammability or explosive limits: N/A

Vapor Pressure: N/A

Evaporation Rate: N/A

Partition Coefficient: n-octanol/water: N/A

Viscosity: N/A

Auto-ignition temperature: N/A

Solubility: Miscible in water.

Decomposition Temperature: N/A

10. STABILITY AND REACTIVITY of the compound in provided concentration and amount

Reactivity: N/A

Chemical Stability: Stable under recommended storage conditions

Conditions of Stability/Instability: N/A

Stabilizers needed: None

Safety issue indicated by appearance change: N/A

Other: N/A

Hazardous Reactions: N/A

Conditions to avoid: N/A

Classes of Incompatible Materials: N/A

Hazardous Decomposition Products: In the event of fire: see section 5.

11. TOXICOLOGICAL INFORMATION of the compound in provided concentration and amount

Likely Routes of Exposure

Eyes: May cause irritation.

Skin: May cause irritation.

Acute Toxicity (Numerical Measures): N/A

Additional information: To the best of our knowledge the chemical, physical and toxicological properties of this compound as solution of given concentration have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION of the compound in provided concentration and amount

Ecotoxicity: N/A

Persistence and degradability: N/A

Bioaccumulation Potential (octanol-water partition coefficient, BCF): N/A

Mobility in the soil: N/A

Adverse Environmental Effects: N/A

13. DISPOSAL CONSIDERATIONS of the compound in provided concentration and amount

Recommended Disposal Containers: Check with your local waste authorities*

Recommended Disposal Methods: Solution in provided concentration and volume can be disposed in drains in ambient conditions.

Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.

Waste Stream: Consult your local or regional authorities.*

14. TRANSPORTATION INFORMATION

UN Number: -

UN Proper Shipping Name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

15. REGULATIONS

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

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

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

16. OTHER INFORMATION

Notice to reader

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. To the best of our knowledge, information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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2. HAZARD IDENTIFICATION

2.1 Classification: Regulation, (EC) No. 1272/2008 [CLP/GSH].

Mixture contains Sodium Dodecyl Sulfate (concentration 10%<conc.<15%), volume ≤ 5 ml
Classification for solution with concentration 10%<conc.<20%:

H315 Skin irritation
H319 Serious eye irritation

2.2 Label Elements according to reduced labelling for volumes ≤ 125 m

Pictogram: 

2.3 Signal word: Warning

2.4 Hazard statements: H315 Skin irritation, H319 Serious eye irritation

2.5 Precautionary statements: Wear protective gloves. Wear eye protection, face protection.

2.6 Response: If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do not eat, drink or smoke when using this product. Collect spillage.

2.7 Special hazards: None

3. INFORMATION ON INGREDIENTS

Stop solution contains: Sodium Dodecyl Sulfate, Chemical formula $CH_3(CH_2)_{11}OSO_3Na$

Volume <5 ml

Contains	CAS No.	EC-No	Index -No	Content
Water	7732-18-5	231-791-2	NA	>85 %
Sodium Dodecyl Sulfate	151-21-3	205-788-1	NA	<15 %

4. FIRST AID MEASURES

General advice: Show this product safety data sheet to the doctor in attendance.
If inhaled: After inhalation: fresh air.
In case of skin contact: take off immediately all contaminated clothing. Rinse skin with plenty of water.
In case of eye contact: rinse out with plenty of water. Remove contact lenses. Consult an ophthalmologist.
If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE FIGHTING MEASURES

5.1 Suitable extinguishing agents: use water spray, dry chemical or carbon dioxide

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Sodium oxides

Sulfur oxides

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Avoid breathing vapors, aerosols. Ensure adequate ventilation. Use appropriate personal protective equipment to prevent contamination of skin, eyes, and personal clothing.

6.2 Environmental Precautions: Prevent further spillage or leakage if safe to do so.

6.3 Methods and material for containment and cleaning up: Absorb liquid components with inert liquid-binding material. Pick up mechanically. Keep in suitable, closed containers for disposal. Clean up affected area.

7. HANDLING AND STORAGE of the compound in provided concentration and amount

7.1 Precautions for safe handling: Do not breathe vapors or mist. Use in a dry and well-ventilated working space. Avoid contact with eyes and skin. Use appropriate personal protective equipment to prevent contamination of skin, eyes, and personal clothing.

7.2 Conditions for safe storage, including incompatibilities: Store tightly closed in original bottle at ambient temperature.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Engineering Controls: Use in a well-ventilated working area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

8.2 Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear.

9. PHYSICAL AND CHEMICAL PROPERTIES of the compound in provided concentration and amount

Appearance: Colorless Liquid

Molecular Weight: 288.38 g/mol

Molecular Formula: CH3(CH2)11OSO3Na

pH: N/A

Boiling Range: N/A

Melting Point/Freezing Point: N/A

Flash Point: N/A

Specific Gravity/Relative Density: N/A

Odor: N/A

Odor Threshold: N/A

Color: Colorless

Flammability (solid/gas): N/A

Vapor Density: N/A

Upper/Lower flammability or explosive limits: N/A

Vapor Pressure: N/A

Evaporation Rate: N/A

Partition Coefficient: n-octanol/water: N/A

Viscosity: N/A

Auto-ignition temperature: N/A

Solubility: Miscible in water.

Decomposition Temperature: N/A

10. STABILITY AND REACTIVITY of the compound in provided concentration and amount

Reactivity: N/A

Chemical Stability: Stable under standard ambient conditions

Conditions of Stability/Instability: N/A

Hazardous Reactions: N/A

Conditions to avoid: N/A

Classes of Incompatible Materials: Oxidizing agents

Hazardous Decomposition Products: In the event of fire: see section 5.

11. TOXICOLOGICAL INFORMATION of the compound in provided concentration and amount

Likely Routes of Exposure

Eyes: Cause irritation.

Skin: May cause irritation.

Acute Toxicity (Numerical Measures): N/A

Additional information: To the best of our knowledge the chemical, physical and toxicological properties of this compound as solution of given concentration have not been thoroughly investigated. Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately.

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

12. ECOLOGICAL INFORMATION of the compound in provided concentration and amount

Ecotoxicity: N/A

Persistence and degradability: N/A

Bioaccumulation Potential (octanol-water partition coefficient, BCF): N/A

Mobility in the soil: N/A

Adverse Environmental Effects: N/A

13. DISPOSAL CONSIDERATIONS of the compound in provided concentration and amount

Recommended Disposal Containers: Check with your local waste authorities*

Recommended Disposal Methods: Solution in provided concentration and volume can be disposed in drains in ambient conditions.

Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.

Waste Stream: Consult your local or regional authorities.*

14. TRANSPORTATION INFORMATION

UN Number: -

UN Proper Shipping Name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

15. REGULATIONS

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

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

Other regulations
Take note of Dir 94/33/EC on the protection of young people at work.

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

16. OTHER INFORMATION

Notice to reader

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. To the best of our knowledge, information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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3. Comments

The original text written by CSO Liliya Euro, PhD