

ThermoFisher SCIENTIFIC

Material Safety Data Sheet

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Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Pacific Hemostasis® Imidazole Buffer Saline

Cat No. 100647, 200647, 250647, 100600

Synonyms No information available.

Recommended Use In vitro diagnostic

| | |
|--|---|
| Company Fisher Diagnostics A Division of Fisher Scientific Company, LLC A Part of Thermo Fisher Scientific, Inc. 8365 Valley Pike Middletown, VA 22645-1905 Tel: (800) 528-0494 | Emergency Telephone Number Chemtrec US: (800) 424-9300 Chemtrec EU: (202) 483-7616 |
|--|---|

2. HAZARDS IDENTIFICATION

WARNING!

Emergency Overview

Harmful if swallowed. May cause central nervous system effects. May cause eye, skin, and respiratory tract irritation .
The toxicological properties have not been fully investigated.

Appearance Clear Colorless

Physical State Liquid

odor odorless

Target Organs Central nervous system (CNS), Blood, Liver, Kidney

Potential Health Effects

Acute Effects

Principle Routes of Exposure

Eyes

Skin

Inhalation

Ingestion

May cause irritation.

May cause irritation. May be harmful in contact with skin.

May cause irritation of respiratory tract. May be harmful if inhaled.

Harmful if swallowed. May cause central nervous system effects. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Effects Tumorigenic effects have been reported in experimental animals.. Experiments have shown reproductive toxicity effects on laboratory animals. May cause adverse liver effects. May cause adverse kidney effects.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

| Component | CAS-No | Weight % |
|----------------------------|------------|----------|
| Water | 7732-18-5 | > 98% |
| Citrate, sodium, dihydrate | 6132-04-3 | < 1% |
| Imidazole | 288-32-4 | < 1% |
| Sodium chloride | 7647-14-5 | < 1% |
| Sodium azide | 26628-22-8 | 0.1 |
| Hydrogen chloride | 7647-01-0 | < 0.5% |

4. FIRST AID MEASURES

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Get medical attention immediately if symptoms occur.

Ingestion Do not induce vomiting. Call a physician or Poison Control Center immediately.

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point Not applicable
Method No information available.

Autoignition Temperature No information available.

Explosion Limits
Upper No data available
Lower No data available

Suitable Extinguishing Media Substance is nonflammable; use agent most appropriate to extinguish surrounding fire..

Unsuitable Extinguishing Media No information available.

Hazardous Combustion Products No information available.

Sensitivity to mechanical impact No information available.
Sensitivity to static discharge No information available.

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors.

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

NFPA **Health** 2 **Flammability** 0 **Instability** 0 **Physical hazards** N/A

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

Environmental Precautions Should not be released into the environment.

Methods for Containment and Clean Up Soak up with inert absorbent material. Keep in suitable and closed containers for disposal. Do not flush down the drain. Sodium azide may react with plumbing systems to form highly explosive compounds.

7. HANDLING AND STORAGE

Handling Wear personal protective equipment. Ensure adequate ventilation. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Do not flush down the drain. Sodium azide may react with plumbing systems to form highly explosive compounds.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep at temperatures between 2° and 8 °C.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure Guidelines

| Component | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|-------------------|--|--|--|
| Sodium azide | Ceiling: 0.29 mg/m ³ Ceiling: 0.11 ppm | Skin (Vacated) Ceiling: 0.1 ppm (Vacated) Ceiling: 0.3 mg/m ³ | Ceiling: 0.3 mg/m ³ Ceiling: 0.1 ppm |
| Hydrogen chloride | Ceiling: 2 ppm | Ceiling: 7 mg/m ³ Ceiling: 5 ppm (Vacated) Ceiling: 5 ppm (Vacated) Ceiling: 7 mg/m ³ Ceiling: 7 mg/m ³ | IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m ³ |

| Component | Quebec | Mexico OEL (TWA) | Ontario TWAEV |
|--------------|---|------------------|---|
| Sodium azide | Ceiling: 0.3 mg/m ³ Ceiling: 0.11 ppm | | CEV: 0.1 ppm CEV: 0.26 mg/m ³ |

| Component | Quebec | Mexico OEL (TWA) | Ontario TWAEV |
|-------------------|--|--|---------------|
| Hydrogen chloride | Ceiling: 7.5 mg/m ³ Ceiling: 5 ppm | Peak: 7 mg/m ³ Peak: 5 ppm | CEV: 2 ppm |

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment

Eye/face Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-------------------------------------|---------------------------|
| Physical State | Liquid |
| Appearance | Clear Colorless |
| odor | odorless |
| Odor Threshold | No information available. |
| pH | 7.2 - 7.6 |
| Vapor Pressure | No information available. |
| Vapor Density | No information available. |
| Viscosity | No information available. |
| Boiling Point/Range | No information available. |
| Melting Point/Range | No information available. |
| Decomposition temperature °C | No information available. |
| Flash Point | Not applicable |
| Evaporation Rate | No information available. |
| Specific Gravity | No information available. |
| Solubility | No information available. |
| log Pow | No data available |

10. STABILITY AND REACTIVITY

| | |
|---|---|
| Stability | Stable under normal conditions. |
| Conditions to Avoid | Incompatible products. Excess heat. |
| Incompatible Materials | Strong oxidizing agents |
| Hazardous Decomposition Products | Thermal decomposition can lead to release of irritating gases and vapors |
| Hazardous Polymerization | Hazardous polymerization does not occur |
| Hazardous Reactions . | Do not flush down the drain. Sodium azide may react with plumbing systems to form highly explosive compounds. |

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information No acute toxicity information is available for this product

Component Information

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-------------------|-------------------|---|---------------------------------|
| Imidazole | 220 mg/kg (Rat) | Not listed | Not listed |
| Sodium chloride | 3 g/kg (Rat) | 10 g/kg (Rabbit) | 42 g/m ³ (Rat) 1 h |
| Sodium azide | 27 mg/kg (Rat) | 20 mg/kg (Rabbit) 50 mg/kg (Rat) | Not listed |
| Hydrogen chloride | 700 mg/kg (Rat) | 5010 mg/kg (Rabbit) | 3124 ppm (Rat) 1 h |

Irritation No information available.

Toxicologically Synergistic Products No information available.

Chronic Toxicity

Carcinogenicity There are no known carcinogenic chemicals in this product

| Component | ACGIH | IARC | NTP | OSHA | Mexico |
|-------------------|------------|---------|------------|------------|------------|
| Hydrogen chloride | Not listed | group 3 | Not listed | Not listed | Not listed |

IARC: (International Agency for Research on Cancer)
 IARC: (International Agency for Research on Cancer)
 Group 1 - Carcinogenic to Humans
 Group 2A - Probably Carcinogenic to Humans
 Group 2B - Possibly Carcinogenic to Humans

Sensitization No information available.

Mutagenic Effects Mutagenic effects have occurred in humans.

Reproductive Effects Experiments have shown reproductive toxicity effects on laboratory animals.

Developmental Effects No information available.

Teratogenicity No information available.

Other Adverse Effects Tumorigenic effects have been reported in experimental animals.. See actual entry in RTECS for complete information.

Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Do not empty into drains.

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|-----------|------------------|-----------------|----------|------------|
| | | | | |

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|-----------------|---|---|--|----------------------|
| Imidazole | EC50 72 h 130 mg/L EC50 96 h 82 mg/L EC50 72 h 130 mg/L | Not listed | = 1200 mg/L EC50 Pseudomonas putida 17 h = 231 mg/L EC50 Photobacterium phosphoreum 30 min | EC50 48 h 341.5 mg/L |
| Sodium chloride | Not listed | Pimephals prome: LC50: 7650 mg/L/96H | Not listed | EC50: 1000 mg/L/48H |

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available

Mobility .

| Component | log Pow |
|-----------|---------|
| Water | -1.87 |
| Imidazole | -0.02 |

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

| Component | TSCA | DSL | NDSL | EINECS | ELINCS | NLP | PICCS | ENCS | AICS | CHINA | KECL |
|----------------------------|------|-----|------|-----------|--------|-----|-------|------|------|-------|---------------|
| Water | X | X | - | 231-791-2 | - | | X | - | X | X | X |
| Citrate, sodium, dihydrate | - | - | - | - | - | | X | - | X | X | - |
| Imidazole | X | X | - | 206-019-2 | - | | X | X | X | X | KE-20937 X |

| 15. REGULATORY INFORMATION | | | | | | | | | | | |
|----------------------------|---|---|---|-----------|---|--|---|---|---|---|---------------|
| Sodium chloride | X | X | - | 231-598-3 | - | | X | X | X | X | KE-31387 X |
| Sodium azide | X | X | - | 247-852-1 | - | | X | X | X | X | KE-31357 X |
| Hydrogen chloride | T | X | - | 231-595-7 | - | | X | X | X | X | KE-20189 X |

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

| Component | CAS-No | Weight % | SARA 313 - Threshold Values % |
|-------------------|------------|----------|-------------------------------|
| Sodium azide | 26628-22-8 | 0.1 | 1.0 |
| Hydrogen chloride | 7647-01-0 | < 0.5% | 1.0 |

SARA 311/312 Hazardous Categorization

| | |
|-----------------------------------|-----|
| Acute Health Hazard | Yes |
| Chronic Health Hazard | No |
| Fire Hazard | No |
| Sudden Release of Pressure Hazard | No |
| Reactive Hazard | No |

Clean Water Act

| Component | CWA - Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|-------------------|----------------------------|-----------------------------|------------------------|---------------------------|
| Hydrogen chloride | X | 5000 lb | - | - |

Clean Air Act

| Component | HAPS Data | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|-------------------|-----------|-------------------------|-------------------------|
| Hydrogen chloride | X | | - |

OSHA

| Component | Specifically Regulated Chemicals | Highly Hazardous Chemicals |
|-------------------|----------------------------------|----------------------------|
| Hydrogen chloride | - | TQ: 5000 lb |

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Component | Hazardous Substances RQs | CERCLA EHS RQs |
|-------------------|--------------------------|----------------|
| Sodium azide | 1000 lb | 1000 lb |
| Hydrogen chloride | 5000 lb | 5000 lb |

California Proposition 65

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-------------------|---------------|------------|--------------|----------|--------------|
| Sodium azide | X | X | X | - | X |
| Hydrogen chloride | X | X | X | X | X |

U.S. Department of Transportation

Reportable Quantity (RQ): Y
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product contains the following DHS chemicals:

| Component | DHS Chemical Facility Anti-Terrorism Standard |
|-------------------|---|
| Hydrogen chloride | 0 lb STQ (anhydrous); 11250 lb STQ (37% concentration or greater) |

Other International Regulations

Mexico - Grade No information available

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

D1B Toxic materials



16. OTHER INFORMATION

Prepared By Regulatory Affairs
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Revision Summary "****", and red text indicates revision

Disclaimer

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of MSDS