

SAFETY DATA SHEET

| Creation Date 31-Jul-2014 | Revision Date 13-Apr-2015 | Revision Number 1 |
|--|--|-------------------|
| | 1. Identification | |
| Product Name | Hema 3, Solution II | |
| Cat No. : | 23-122-952 | |
| Synonyms | None Known. | |
| Recommended Use | Laboratory chemicals. | |
| Uses advised against Details of the supplier of the safet | dvised against No Information available of the supplier of the safety data sheet | |
| Company Richard Allan Scientific A Subsidiary of Thermo Fisher Scien 4481 Campus Drive Kalamazoo, MI 49008 Tel: (800) 522-7270 | Emergency Telephone Number Chemtrec US: (800) 424-9300 Chemtrec EU: 001 (202) 483-7616 | |
| | 2. Hazard(s) identification | |

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Based on available data, the classification criteria are not met

Label Elements None required

Hazards not otherwise classified (HNOC)

Harmful to aquatic life with long lasting effects

3. Composition / information on ingredients

| Component | CAS-No | Weight % |
|---|------------|----------|
| Sodium azide | 26628-22-8 | < 1.0 |
| Methylene blue trihydrate | 7220-79-3 | < 0.1 |
| Dihydrogen potassium phosphate | 7778-77-0 | 0.5 |
| Sodium phosphate dibasic | 7558-79-4 | 0.4 |
| Water | 7732-18-5 | 97 |
| Phenothiazin-5-ium, 3-amino-7-(dimethylamino)-, chloride | 531-53-3 | < 1.0 |

4. First-aid measures

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. |
|---|--|
| Inhalation | Move to fresh air. |
| Ingestion | Do not induce vomiting. |
| Most important symptoms/effects Notes to Physician | No information available. Treat symptomatically |

| Jnsuitable Extinguishing Media | No information available |
|---------------------------------|----------------------------|
| Flash Point | |
| Method - | No information available |
| Autoignition Temperature | No information available |
| Explosion Limits | |
| Upper | No data available |
| Lower | No data available |
| Sensitivity to Mechanical Impac | t No information available |
| Sensitivity to Static Discharge | No information available |

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

None known

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 1 | Flammability 0 | Instability 0 | Physical hazards N/A |
|---------------------------------------|-------------------|--|-------------------------|
| | 6. Accidental rel | lease measures | |
| Precautions nental Precautions | | n. Use personal protective equ al ecological information. Avoid | |

Methods for Containment and Clean No information available. Up

7. Handling and storage

Handling

Ensure adequate ventilation.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection

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/m³ | Ceiling: 0.1 ppm Ceiling: 0.3 mg/m ³ |

| Component | Quebec | Mexico OEL (TWA) | Ontario TWAEV |
|--------------|-------------------|------------------|-----------------------------|
| Sodium azide | Ceiling: 0.11 ppm | | CEV: 0.29 mg/m ³ |

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| | Ceiling: 0.3 mg/m ³ | CEV: 0.11 ppm |
|--------|--------------------------------|---------------|
| Legend | | |

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

| Engineering Measures | Ensure adequate ventilation, especially in confined areas. |
|-------------------------------|---|
| 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. |
| Hygiene Measures | Handle in accordance with good industrial hygiene and safety practice. |

| 9. Physica | al and chemical properties |
|--|----------------------------|
| Physical State | Liquid |
| Appearance | Blue |
| Odor | Odorless |
| Odor Threshold | No information available |
| рН | |
| Melting Point/Range | No data available |
| Boiling Point/Range | C° |
| Flash Point | |
| Evaporation Rate | No information available |
| Flammability (solid,gas) | No information available |
| Flammability or explosive limits | |
| Upper | No data available |
| Lower | No data available |
| Vapor Pressure | No information available |
| Vapor Density | No information available |
| Relative Density | No information available |
| Solubility | Soluble in water |
| Partition coefficient; n-octanol/water | No data available |
| Autoignition Temperature | No information available |
| Decomposition Temperature | No information available |
| Viscosity | No information available |
| | |

10. Stability and reactivity

| Reactive Hazard | None known, based on information available |
|---|--|
| Stability | Stable under normal conditions. |
| Conditions to Avoid | Incompatible products. |
| Incompatible Materials | Strong oxidizing agents |
| Hazardous Decomposition Products None under normal use conditions | |
| Hazardous Polymerization | Hazardous polymerization does not occur. |

Hazardous Reactions

None under normal processing.

11. Toxicological information

Acute Toxicity

Component Information

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|--------------------------------|--------------------------|----------------------|-----------------|
| Sodium azide | 27 mg/kg (Rat) | 50 mg/kg (Rat) | Not listed |
| | | 20 mg/kg (Rabbit) | |
| Dihydrogen potassium phosphate | Not listed | >4640 mg/kg (Rabbit) | Not listed |
| Sodium phosphate dibasic | 17 g/kg (Rat) | Not listed | Not listed |
| Toxicologically Synergistic | No information available | | |

Products

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

Sensitization No information available

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | CAS-No | IARC | NTP | ACGIH | OSHA | Mexico |
|---|------------|-------------------|------------|------------|------------|------------|
| Sodium azide | 26628-22-8 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Methylene blue trihydrate | 7220-79-3 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Dihydrogen potassium phosphate | 7778-77-0 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Sodium phosphate dibasic | 7558-79-4 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Water | 7732-18-5 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Phenothiazin-5-ium, 3-amino-7-(dimethyla mino)-, chloride | 531-53-3 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Mutagenic Effects | | No information av | ailable | | • | |

| Reproductive Effects | No information available. |
|--|---------------------------|
| Developmental Effects | No information available. |
| Teratogenicity | No information available. |
| STOT - single exposure STOT - repeated exposure | None known None known |
| Aspiration hazard | No information available |
| Symptoms / effects,both acute and | No information available |
| delayed Endocrine Disruptor Information | No information available |

Other Adverse Effects

The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Do not empty into drains.

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|--------------|------------------|---|------------|------------|
| Sodium azide | Not listed | 5.46 mg/L LC50 96 h 0.7 mg/L LC50 96 h 0.8 mg/L LC50 96 h | Not listed | Not listed |

| Persistence and Degradability Bioaccumulation/ Accumulation | No information available No information available. | | | | |
|--|---|--|--|--|--|
| Mobility | No information available. | | | | |
| | 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 | | | | | |
| DOT TDG IATA | Not regulated | | | | | |
| IATA | IATA Not regulated | | | | | |
| IMDG/IMO | Not regulated | | | | | |
| | 15. Regulatory information | | | | | |

International Inventories

| Component | TSCA | DSL | NDSL | EINECS | ELINCS | NLP | PICCS | ENCS | AICS | IECSC | KECL |
|--|------|-----|------|-----------|--------|-----|-------|------|------|-------|------|
| Sodium azide | Х | Х | - | 247-852-1 | - | | Х | Х | Х | Х | Х |
| Dihydrogen potassium phosphate | Х | Х | - | 231-913-4 | - | | Х | Х | Х | Х | Х |
| Sodium phosphate dibasic | Х | Х | - | 231-448-7 | - | | Х | Х | Х | Х | Х |
| Water | Х | Х | - | 231-791-2 | - | | Х | - | Х | Х | Х |
| Phenothiazin-5-ium, 3-amino-7-(dimethylamino)-, chloride | Х | Х | - | 208-510-7 | - | | - | - | Х | - | - |

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 | B Not applicable | | | | | |
|----------|------------------|------------|----------|----------------------------------|--|--|
| | Component | CAS-No | Weight % | SARA 313 - Threshold Values % | | |
| | Sodium azide | 26628-22-8 | < 1.0 | 1.0 | | |

SARA 311/312 Hazardous Categorization

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

Clean Water Act Not applicable

| Component | CWA - Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|--------------------------|-------------------------------|--------------------------------|------------------------|---------------------------|
| Sodium phosphate dibasic | Х | 5000 lb | - | - |

Clean Air Act

Not applicable

OSHA Occupational Safety and Health Administration Not applicable

CERCLA

Not applicable

| Component | Hazardous Substances RQs | CERCLA EHS RQs |
|--------------------------|--------------------------|----------------|
| Sodium azide | 1000 lb | 1000 lb |
| Sodium phosphate dibasic | 5000 lb | - |

California Proposition 65 This product does not contain any Proposition 65 chemicals

State Right-to-Know Not applicable

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|-----------------------------|---------------|------------|--------------|----------|--------------|
| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
| Sodium azide | Х | Х | Х | - | Х |
| Methylene blue trihydrate | - | - | - | Х | - |
| Sodium phosphate dibasic | Х | Х | х | - | - |
| Water | - | - | X | - | - |

U.S. Department of Transportation

| Reportable Quantity (RQ): | Ν |
|-----------------------------|---|
| DOT Marine Pollutant | Ν |
| DOT Severe Marine Pollutant | Ν |

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

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

Non-controlled

| | 16. Other information |
|--|---|
| Prepared By | Regulatory Affairs Richard Allan Scientific A Subsidiary of Thermo Fisher Scientific Tel: (800) 522-7270 |
| Creation Date Revision Date Print Date Revision Summary | 31-Jul-2014 13-Apr-2015 13-Apr-2015 This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) |
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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.