

SAFETY DATA SHEETS

This SDS packet was issued with item:

078428906

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

078024174

MSDS**Material Safety Data****JorVel™****Jorgensen Laboratories, Inc.**1450 North Van Buren Avenue
Loveland, CO 80538**New Methylene Blue**

Product Codes: J324

Effective

24 Hour Emergency Telephone:

CMB: (800)535-5053

SEP 25 2009

All non-emergency questions may be directed to customer service @ (970)669-2500 or fax (970)663-5042

HAZARDOUS INFORMATION**Product Identification**

Hazardous Ingredient: New Methylene Blue N, Zinc Chloride, 0.5%

Synonyms: Basic blue 24

CAS #: 6586-05-6

Molecular Weight: 416.0

Chemical Formula: $C_{18}H_{22}N_3SCl$

Hazardous Ingredient: Potassium Oxalate, 1.6%

Synonyms: Oxalic acid (dipotassium salt), ethanedioic acid (dipotassium salt)

CAS #: 6487-48-5

Molecular Weight: 184.23

Chemical Formula: $(COOK)_2 \cdot H_2O$ **HAZARDS IDENTIFICATION****Emergency Overview****CAUTION! HARMFUL IF SWALLOWED!** Avoid contact with eyes, skin and clothing. May stain skin and clothing.**SAFETY RATINGS:** Health: 2, Moderate

Reactivity: 0, None

Flammability: 0, None

Contact: 0, None

Protective Equipment: Safety Glasses or Goggles, Lab Coat or Apron, Gloves.**Storage Code:** Green: Minimal Hazard.**Potential Health Effects****INHALATION:**

No known effects.

INGESTION:

Harmful or may be fatal. May cause nausea, vomiting, and diarrhea.

SKIN CONTACT:

May cause irritation.

EYE CONTACT:

May cause irritation.

CHRONIC EXPOSURE:

No information available.

AGGRAVATION of PRE-EXISTING CONDITIONS:

No information available.

FIRST AID MEASURES**INHALATION:**

Remove to fresh air if effects occur.

INGESTION:

Give several glasses of water and induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Product #: J324

New Methylene Blue Stain

SKIN CONTACT:

Wash with mild soap and water. Get medical advise if irritation develops.

EYE CONTACT:

Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical advise if irritation develops.

FIRE FIGHTING MEASURES

FIRE:

Not considered to be a fire hazard.

EXPLOSION:

Not considered to be a explosion hazard.

FIRE EXTINGUISHING MEDIA:

Use any means suitable for extinguishing surrounding fire.

SPECIAL INFORMATION:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

NFPA RATINGS: Health: 1 Flammability: 0 Reactivity: 0

ACCIDENTAL RELEASE MEASURES

Wear appropriate personal protective equipment as specified in the Personal Protection Section. Collect liquid in an appropriate container or absorb with a paper towel for proper disposal. Wash area with soap and water.

HANDLING AND STORAGE

Store in a cool, dry, ventilated area away from flame, sources of ignition and heat. Keep containers tightly closed and upright. Protect from physical damage. Keep out of direct sunlight and separate from incompatible materials. Storage and use areas should be non-smoking.

PERSONAL PROTECTION

AIRBORNE EXPOSURE LIMITS:

None established.

VENTILATION SYSTEM:

In general, dilution ventilation is a satisfactory health hazard control for this substance.

PERSONAL RESPIRATORS (NIOSH) APPROVED:

No information available.

SKIN PROTECTION:

Wear protective clothing, gloves, lab coat or apron, as appropriate, to prevent skin contact.

EYE PROTECTION:

Use chemical safety goggles. Maintain eye wash fountain in work area.

PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:

Blue Liquid.

ODOR:

Characteristic odor.

SOLUBILITY:

Miscible with water.

SPECIFIC GRAVITY:

No information available.

pH:

No information available.

% VOLATILES by VOLUME:

No information available.

BOILING POINT:

No information available.

MELTING POINT:

No information available.

VAPOR DENSITY (Air =1):

No information available.

VAPOR PRESSURE (mm Hg):

No information available.

EVAPORATION RATE (BuAc=1):

No information available.

STABILITY AND REACTIVITY

STABILITY:

Stable under ordinary conditions of use and storage.

HAZARDOUS DECOMPOSITION PRODUCTS:

No information available.

HAZARDOUS POLYMERIZATION:

Will not occur.

INCOMPATIBILITIES:

No information available.

CONDITIONS to AVOID:

Heat and sunlight.

TOXICOLOGICAL/ECOLOGICAL INFORMATION

TOXICOLOGICAL DATA/ENVIRONMENTAL TOXICITY:

No information available.

DISPOSAL INFORMATION

Dispose of container and unused contents in accordance with federal, state and local requirements. State and local disposal regulation may differ from federal disposal regulations.

OTHER INFORMATION

TRANSPORT (Land, DOT):

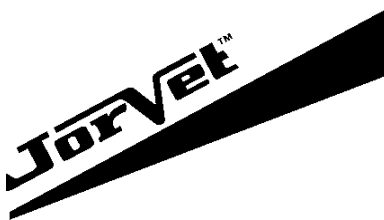
Not regulated.

PRODUCT USE:

Laboratory Reagent.

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**SDS**

Safety Data Sheet

1. IDENTIFICATION

Product Identifier: New Methylene Blue Stain

Product Code(s): J0324, J0324A

Synonyms: Mixture.

Recommended Use: For invitro veterinary use only.

Uses Advised Against: Not for use on humans.

Supplier: Jorgensen Laboratories
1450 Van Buren Avenue, Loveland, CO 80538
Phone: (970) 669-2500 or (800) 525-5614 Fax: (970) 663-5042

Emergency Phone Number: U.S. and Canada: (800) 535-5053 International: (352) 323-3500 (INFOTRAC)

2. HAZARDS IDENTIFICATION

Hazard Classifications: This product is classified as nonhazardous under OSHA's Hazard Communication Standard, 29 CFR 1910.1200 (HCS) and the United Nations' Globally Harmonized System of Classification and Labeling of Chemicals (GHS). However, all chemicals handled and used in the workplace should be treated with caution.

Signal Word: Not applicable.

Hazard Statements: Not applicable.

Pictograms: Not applicable.

Precautionary Statements:

Prevention: Not applicable.

Response: Not applicable.

Storage: Not applicable.

Disposal: Not applicable.

Hazards Not Otherwise Classified: Not applicable.

Toxicity Statement: This product contains >1% ingredients whose acute toxicity is unknown.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

| Component | Common Name / Synonyms | CAS# | Chemical Formula | % by Weight |
|--------------------------|------------------------|-----------|------------------|-------------|
| Water | Water | 7732-18-5 | H ₂ O | >97 |
| Nonhazardous ingredients | N/A | N/A | N/A | <3 |

Trade Secret Statement: The identifiers and concentrations of the “nonhazardous ingredients” have been withheld under a trade secret. These components are either nonhazardous or are present at sufficiently low concentrations such that they do not affect the hazard classification of this product.

4. FIRST AID MEASURES

First Aid Procedures:

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms occur, call a poison center or doctor immediately.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, keep head low so that vomit does not enter lungs. Never give anything by mouth to an unconscious person. If symptoms occur, call a poison center or doctor immediately.

Skin Contact: Remove contaminated clothing and shoes. Wash skin with plenty of water for at least 15 minutes. Wash clothing before reuse. If symptoms occur, call a poison center or doctor immediately.

Eye Contact: Check for and remove contact lenses if present and easy to do. Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. If symptoms occur, call a poison center or doctor immediately.

General Advice: Ensure that medical personnel and those providing first aid are aware of the material(s) involved and take precautions to protect themselves.

Symptoms and Effects: Irritation, nausea, vomiting, diarrhea, abdominal pain. May be harmful if swallowed. May cause irritation to the eyes, skin, respiratory tract, and gastrointestinal tract.

**Immediate Medical Care/
Special Treatment:** If you feel unwell or are concerned, call a physician or poison control center immediately. Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable Extinguishing Media: Water spray, dry powder, alcohol resistant foam, carbon dioxide.

Unsuitable Extinguishing Media: Do not use a solid (straight) water stream, as it may scatter and spread fire.

Hazardous Combustion Products: Toxic fumes.

Specific Hazards: Excessive thermal conditions may cause decomposition and yield hazardous decomposition products listed above.

**Special Protective Equipment/
Precautions for Firefighters:** As in any fire, wear MSHA/NIOSH-approved (or equivalent), self-contained, positive-pressure or pressure-demand breathing apparatus and full protective gear. In the event of fire and/or explosion, do not breathe fumes.

6. ACCIDENTAL RELEASE MEASURES

| | |
|---|--|
| Personal Precautions and Protective Equipment: | Isolate hazard area and keep unnecessary and unprotected personnel away from the area of the leak or spill. Wear appropriate personal protective equipment (see Section 8). Avoid contact with eyes, skin, and clothing. |
| Emergency Procedures: | In case of chemical emergency, or if unsure how to address an accidental release, consult a professional (see Section 1). |
| Methods for Containment: | Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements, or confined areas. Dike the spilled material, where this is possible. Product should not be released to the environment. Contain and recover liquid when possible. |
| Methods for Cleanup: | Absorb spill with an inert material (e.g. vermiculite, dry sand, earth, cloth, or fleece) and place in a noncombustible container for reclamation or disposal. Do not flush to sewer. Clean contaminated surface thoroughly. Spills can be dissolved with alcohol or acetone solution. Never return spills in original containers for reuse. Clean up in accordance with all applicable regulations. |

7. HANDLING AND STORAGE

| | |
|------------------|--|
| Handling: | Avoid contact with skin, eyes, and clothing. Do not breathe vapors or spray mist. Do not ingest. When using, do not eat, drink, or smoke. Keep away from incompatible materials (see Section 10). Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Containers of this material may be hazardous when empty, as they retain product residues. Observe all warnings and precautions listed for this product. |
| Storage: | Store in a cool, dry, ventilated area. Store away from incompatible materials (see Section 10). Store in original container. Keep containers tightly closed and upright. Keep away from food, drink, and animal foodstuffs. Keep out of the reach of children. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of this product. |

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

| | | |
|--------------------------------------|---|--|
| Exposure Limits: | Water: | No information found. |
| | Nonhazardous ingredients: | No information found. |
| Engineering Controls: | Ensure adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. | |
| Personal Protective Measures: | | |
| | Eye/Face Protection: | Wear safety glasses with side shields or goggles and a face shield. Maintain approved eye wash station and accessible rinse facilities in work area. |
| | Skin Protection: | Wear appropriate chemical resistant clothing (with long sleeves) and appropriate chemical resistant gloves. |
| | Respiratory Protection: | An air-purifying, NIOSH-approved respirator with appropriate cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a positive-pressure, air-supplied respirator if there is any |

potential for an uncontrolled release, if exposure levels are unknown, or if any other circumstances exist where air-purifying respirators may not provide adequate protection.

**Specific Requirements
for Personal Protective
Equipment:**

Ensure that glove material is compatible with this product. This information is available from glove manufacturers.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|-----------------------------|
| Appearance: | Blue, opaque liquid. |
| Odor: | Slight, mild. |
| Odor Threshold: | No information found. |
| Formula Weight: | Mixture. |
| pH: | No information found. |
| Melting/Freezing Point: | ≈ 0 °C |
| Boiling Point/Range: | ≈ 100 °C |
| Decomposition Temperature: | No information found. |
| Flash Point: | Not applicable. |
| Auto-ignition Temperature: | Not applicable. |
| Flammability: | Not flammable or explosive. |
| Flammability/Explosive Limits: | Not applicable. |
| Solubility: | Miscible with water. |
| Vapor Pressure: | No information found. |
| Vapor Density: | No information found. |
| Specific Gravity: | 1.005 (Water = 1) |
| Evaporation Rate: | No information found. |
| Viscosity: | No information found. |
| Partition Coefficient (n-octanol/water): | No information found. |

10. STABILITY AND REACTIVITY

| | |
|--|--|
| Reactivity Data: | No information found. |
| Chemical Stability: | Stable under normal conditions. |
| Conditions to Avoid: | Heat, incompatible materials. |
| Incompatible Materials: | Oxidizing agents, strong bases. |
| Hazardous Decomposition Products: | Toxic fumes. |
| Possibility of Hazardous Reactions: | May react vigorously or violently if exposed to extreme thermal conditions or if contacted with the incompatible materials listed above. |

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Routes of Exposure: Inhalation, ingestion, skin contact, eye contact.

Acute Effects: May be harmful if swallowed. May cause irritation to the eyes, skin, respiratory tract, and gastrointestinal tract.

Chronic Effects: No information found.

Toxicological Data: Water: No information found.

Nonhazardous ingredients: No information found.

Symptoms of Exposure: Irritation, nausea, vomiting, diarrhea, abdominal pain.

Carcinogenic Effects: No component of this product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

12. ECOLOGICAL INFORMATION

Ecotoxicological Data: Water: No information found.

Nonhazardous ingredients: No information found.

Persistence and Degradability: May not be readily biodegradable.

Environmental Effects: Not expected to be hazardous to the environment. However, the possibility of an environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

13. DISPOSAL INFORMATION

Disposal Instructions: All wastes must be handled in accordance with local, state, and federal regulations. Minimize exposure to product waste (see Section 8).

Contaminated Packaging: Because emptied containers retain product residue, follow label warnings even after container is emptied. Offer rinsed packaging material to local recycling facilities.

Waste Codes: No information found.

14. TRANSPORT INFORMATION

DOT: Not regulated.

Environmental Hazard Regulations: No information found.

Other Transport Precautions: No information found.

15. REGULATORY INFORMATION

U.S. Federal Regulations:

OSHA: This product is not considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Inventory: All components of this product are on the U.S. TSCA Inventory.

U.S. EPCRA (SARA Title III):

Section 302: No information found.

Sections 311/312:

| Hazard Category | List (Yes/No) |
|----------------------------------|---------------|
| Section 311 – Hazardous Chemical | No |
| Immediate Hazard | No |
| Delayed Hazard | No |
| Fire Hazard | No |
| Pressure Hazard | No |
| Reactivity Hazard | No |

Section 313: No information found.

CERCLA Reportable Quantities: No information found.

International Inventories:

| Country or Region | Inventory Name | On Inventory (Yes/No)* |
|-------------------|--|------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | N/A |
| Canada | Domestic Substances List (DSL) | N/A |
| Canada | Non-Domestic Substances List (NDSL) | N/A |
| China | Inventory of Existing Chemical Substances in China (IECSC) | N/A |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | N/A |
| Europe | European List of Notified Chemical Substances (ELINCS) | N/A |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | N/A |
| Korea | Existing Chemicals List (ECL) | N/A |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | N/A |

*A "Yes" indicates that the listed component(s) of this product comply with the inventory requirements administered by the governing country(s)

16. OTHER INFORMATION

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Issue Date:

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Reason for Revision:

Not applicable.