



Bradley Products, Inc.

MATERIAL SAFETY DATA SHEET **Product: Davidson Marking System® Blue Dye all sizes**

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Dear Customer:

This MSDS (Material Safety Data Sheet) contains the latest information relating to our product. Please discontinue using any former Bradley Products, Inc. MSDS for this product. The format of this MSDS has changed substantially from previous versions and has been modified to follow the ANSI recommended 16 section format. It continues to be prepared in accordance with the OSHA Hazard Communication Standard (29CFR 1910.1200). Please:

- Review this MSDS and ensure you understand and comply with its content.
- Inform all employees and other users of the information contained in this MSDS before handling the product.
- Bradley Products updates MSDSs as needed. The Content Effective date represents the last change in the product formula. The Verified date represents the date the MSDS content was verified as accurate. Newly modified MSDSs should be forwarded to all downstream users.

This MSDS contains information which may be helpful for you to comply with certain regulations and laws. It is not all inclusive information and could not be. Only you are in a position to determine what legal and other requirements are associated with the use of this product in your particular process and operation. It is your obligation to understand and comply with all information contained in this MSDS as well as all applicable laws, rules and regulations relating to your handling, use, storage and processing of this material.

If you want additional copies of this MSDS, we are happy to provide them to you, at no charge, via mail, fax, e-mail, or you can download a PDF copy from our web site. If you have questions or desire additional information in the handling, storage, use, or disposal of this product, please contact us.

Sincerely,
Bradley Products, Inc.

Important Note: The Davidson Marking System® dyes, manufactured by Bradley Products, Inc. are not intended for use on a living patient. These dyes are only intended for use on excised tissues.

*The original margin marking system for a variety of applications
requiring orientation of tissue specimens in medical laboratories.*





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Bradley Products, Inc. encourages safe handling of this product. To promote safe handling, each recipient should: 1) Notify its employees, agents, contractors and others whom it knows or believes will use this material or the information in this MSDS and any other information regarding hazards or safety; 2) Furnish this same information to each of its customers for the product; and 3) Request its customers to notify their employees, customers and other users of the product of this information.

Section I – Product and Company Information

1.1 PRODUCT IDENTIFICATION

Product: Davidson Marking System® Blue Dye all sizes

HMIS Ratings: Health - 1 Flammability - 0 Reactivity - 0

1.2 COMPANY IDENTIFICATION

Bradley Products, Inc.

1700 West 94th Street

Bloomington, MN 55431-2300

Fax: 952-881-1873

e-mail: dms@bradleyproducts.com

web site: www.bradleyproducts.com

Phone: 952-881-1430

Toll-free: 800-325-7785

Section II – Composition – Right to Know

| <u>Product</u> | <u>CAS #</u> | <u>Product</u> | <u>CAS #</u> |
|---------------------------|-------------------------|-----------------------|---------------------|
| Water | 7732-18-5 | Ethandionic Acid | 144-62-7 |
| Pigment Blue preservative | proprietary 111-30-8 | | |

Section III – Hazardous Identification and Health Effects

3.1 EMERGENCY OVERVIEW

Appearance: Blue
Physical State: Liquid
Odor: None
Hazards: Irritating to skin and eyes.

3.2 POTENTIAL HEALTH EFFECTS

Effects of Single Acute Overexposure

Inhalation: Undiluted liquid does not present a significant inhalation hazard.
Eye Contact: Contact with eyes may result in an irritation with burning and stinging.
Skin Contact: Contact with skin may result in an irritation.
Persons with known aldehyde sensitization may experience a rash.
Ingestion: See Chronic, Prolonged or Repeated Overexposure comments below:

Chronic, Prolonged or Repeated Overexposure

Repeated ingestion of large quantities of the undiluted liquid can result in chelation of calcium in the body causing hypocalcemia, which can produce severe disturbances in the actions of renal, cardiac, and nervous tissues.

3.3 POTENTIAL ENVIRONMENTAL EFFECT

See Section XV - Regulatory Information

Section IV – First Aid Procedures

4.1 INHALATION

Move to fresh air. Aid in breathing, if necessary, and get immediate medical attention.

4.2 EYE CONTACT

Immediately wash eyes with running water for 15 min. If irritation develops, consult a physician.

4.3 SKIN CONTACT

Wash affected areas with soap and water. Remove and launder contaminated clothing before reuse. If irritation develops, consult a physician.

4.4 INGESTION

If swallowed, dilute with water and induce vomiting. Never give fluids or induce vomiting if victim is unconscious or having convulsions. Get immediate medical attention.

4.5 NOTES TO PHYSICIAN

No information currently available.

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Section V – Fire and Explosion Data

5.1 FLAMMABLE PROPERTIES

Flash Point (Test Method):

>212°F

Autoignition Temp:

N/A

Flammability Limits in Air (% by Vol):

Lower: N/A Upper: N/A

5.2 EXTINGUISHING MEDIUM

Use powder, alcohol-resistant foam, water in large amounts, carbon dioxide.

5.3 EXTINGUISHING MEDIUM TO AVOID

No information currently available.

5.4 SPECIAL FIREFIGHTING PROCEDURES

No special procedures required.

5.5 SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

No special equipment required.

5.6 UNUSUAL FIRE AND EXPLOSION HAZARDS

None.

5.7 HAZARDOUS DECOMPOSITION PRODUCTS

None.

Section VI – Accidental Spill / Leak Procedures

Steps to be taken if material is released or spilled:

Contain and collect spilled product. Dispose in accordance with Federal, State, and Local regulations. Dispose of empty containers by crushing or whatever means will prevent unauthorized reuse.

Personal Precautions:

See Section VIII - Special Protection

Environmental Precautions:

Do not flush to drain.

Section VII – Handling and Storage

7.1 HANDLING

General Handling

Keep container closed. Loosen closure cautiously before opening. Store in a cool, well ventilated place away from incompatible materials such as strong oxidizing agents, hot strong mineral acids and strong alkalis.

Ventilation

General room ventilation is expected to be satisfactory if this material is kept in covered equipment or containers.

Local exhaust use is recommended.

7.2 STORAGE

Temperature: Ambient Storage Pressure: Atmospheric

Section VIII – Exposure Controls and Personal Protection

8.1 EXPOSURE LIMITS

No information currently available.

8.2 PERSONAL PROTECTION

None required for normal product use. Undiluted liquid will stain clothing and surfaces. Protection against staining may be desired.

8.3 ENGINEERING CONTROLS

None required for normal product use.

Section IX – Physical and Chemical Properties

| | | | |
|----------------------|----------|--------------------------|-------------------|
| Physical State: | Liquid | Freezing Point: | 32°F |
| Appearance: | Blue | Specific Gravity (g/ml): | 1.0 |
| pH: | Neutral | Vapor Pressure: | 19.8 mmHg at 22°C |
| Solubility in Water: | miscible | Vapor Density: | 1. Air = 1 |
| Odor: | None | Evaporation Rate: | Similar to water. |
| Volatiles By Weight: | 57-61% | Melting Point | ND |
| Boiling Point: | >212°F | | |

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Section X – Stability and Reactivity

10.1 STABILITY / INSTABILITY

This product is stable.

Conditions to Avoid: N/A

Chemical Incompatibility:

Mixing this product with strong alkalis, hot strong mineral acids, and strong oxidizing agents can cause product decomposition leading to release of ammonia and hydrogen cyanide gas in low concentrations.

10.2 HAZARDOUS POLYMERIZATION

Does not occur.

Hazardous Decomposition Products: None

Conditions to Avoid: No information currently available.

10.3 INHIBITORS / STABILIZERS

No information currently available.

OTHER:

Corrosive to Metal: No Oxidizer: No

Section XI – Toxicological Information

Toxicity to Animals:

475 mg/kg oral-rat (male), 375 mg/kg oral-rat (female), LD50 - ethanedioic acid

20 gm/kg skin-rabbit (not lethal)-ethanedioic acid

0.82 g/kg oral-rat, LD50 - preservative

0.64 g/kg skin-rabbit LD50 - preservative

Chronic Effects on Humans:

No known effects for undiluted liquid material mixture. Ethanedioic acid component can cause kidney damage by removal of calcium from the blood and obstructing renal tubules.

Section XII – Ecological Information

Ecotoxicity: N/A

BOD5 and COD: N/A

Products of Biodegradation: Products of biodegradation are less toxic than the product itself.

Section XIII – Disposal Considerations

13.1 WASTE DISPOSAL METHOD

Dispose in accordance with Federal, State, and Local regulations.

Section XIV – Transport Information

14.1 U.S. DOT, IMO

Not regulated. Not IATA regulated.

Section XV – Regulatory Information

TCSA: Components of this product are listed on the TSCA Inventory.

SARA Title III: Components of this product are listed under this statute.

CERCLA: Components of this product are not listed under this statute.

Section XVI – Other Information

16.1 AVAILABLE LITERATURE AND BROCHURES

Additional product safety information on this product may be available and may be obtained by calling Bradley Products, Inc. or visit the web site at www.bradleyproducts.com

16.2 SPECIFIC HAZARD RATING SYSTEM

No information currently available.

16.3 RECOMMENDED USES AND RESTRICTIONS

For industry use only.

16.4 REVISION

Version: 3

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While Bradley Products, Inc. (BPI) believes the data set forth herein are accurate as of the date hereof, BPI makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon, such data are offered solely for your consideration, investigation and verification. Since the use of this information and the conditions of the use of the product are not under the control of BPI, it is the user's obligation to determine conditions of safe use of the product.