

Davidson Marking System® Orange Dye all sizes

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58, March 26, 2012 / Rules and Regulations



Davidson Marking System® Orange Dye all sizes Safety Data Sheet (SDS)

Item #s 1013-6, 1101-6, 1163-6, 3408-6 and included in Set Item #s 2407, 2406, 2401, 2403, 1207, 1007 and included in sample sets of dyes

according to Federal Register / Vol. 77, No. 58 / March 26, 2012 / Rules and Regulations

Date of Issue: 09/11/2014 Verification date: 04/13/2016 Version 2.0v2 Supersedes 06/01/14

Bradley Products, Inc.

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 SDS 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 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product form : Mixture
Product name : Davidson Marking System® Orange Dye all sizes
CAS No : Proprietary
Product Code : 1013-6, 1101-6, 1163-6, 3408-6 and included in Set Item #s 2407, 2406, 2401, 2403, 1207, 1007 and included in sample sets of dyes

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of substance/mixture : Dispersion; Pigment Orange 16 (CAS No. 6505-28-8)

1.3. Details of the supplier of the SDS (Safety Data Sheet)

Bradley Products, Inc.
1700 W 94th Str
Bloomington, MN 55431-1300 USA
T 800-325-7785 T 952-881-1430 F 952-881-1873
www.bradleyproducts.com / dms@bradleyproducts.com

1.4. Emergency telephone number

Emergency telephone number : Bradley Products 800-325-7785

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Not classified

2.2. Label elements

GHS-US labeling

No labeling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

Full text of H-phrases: see section 16

3.2. Mixtures

Name	Product identifier	%	Classification (GHS-US)
Ammonium hydroxide	(CAS No) 1336-21-6	<=0.5	Acute Tox. 4 (oral), H302
Sodium hydroxide	(CAS No) 1310-73-2	0.014 - 0.018	Acute Tox. 4 (Dermal), H312 Skin Corr. 1A, H314
1,2-Benzisothiazolin-3-one	(CAS No) 2634-33-5	0.050 - 0.056	Acute Tox. 4 (oral), H302

Davidson Marking System® Orange Dye all sizes

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58, March 26, 2012 / Rules and Regulations

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

- See Heading 8 : Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep only in the original container in a cool, well ventilated place away from
- Incompatible products : Keep container closed when not in use.
- Incompatible materials : Strong bases. Strong acids.
- Maximum storage period : Sources of ignition. Direct sunlight.
- Storage temperature : 24 months
- Storage temperature : 40 - 120°F

7.3. Specific end use(s)

No additional information available

Davidson Marking System® Orange Dye all sizes

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58, March 26, 2012 / Rules and Regulations

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Sodium hydroxide (1310-73-2)

USA ACGIH	ACGIH Ceiling (mg/m ³)	2 mg/m ³
UDS OSHA	OSHA PEL (TWA) (mg/m ³)	2 mg/m ³
UDS NIOSH	NIOSH REL (ceiling) (mg/m ³)	2 mg/m ³
UDS IDLH	US IDLH (mg/m ³)	10 mg/m ³

8.2. Exposure controls

Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Wear protective gloves.
Eye protection	: Chemical goggles or safety glasses.
Respiratory protection	: Wear approved mask.
Other information	: When using, do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: liquid
Appearance	: orange liquid
Color	: orange
Odor	: ammonia-like
Odor threshold	: no data available
pH	: 8.5 - 9.5
Relative evaporation rate (butyl acetate-1)	: no data available
Melting point	: no data available
Freezing point	: no data available
Boiling point	: no data available
Flash point	: no data available
Self ignition temperature	: no data available
Decomposition temperature	: no data available
Flammability (solid, gas)	: no data available
Vapor pressure	: no data available
Relative vapor density at 20°C	: no data available
Relative density	: no data available
Density	: 1.1 g/ml
Solubility	: Water Dispersible
Log Pow	: no data available
Log Kow	: no data available
Viscosity, kinematic	: no data available
Viscosity, dynamic	: no data available
Explosive properties	: no data available
Oxidizing properties	: no data available
Explosive limits	: no data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable at recommended storage temperature.

10.3. Possibility of hazardous reactions

Not established

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases

Davidson Marking System® Orange Dye all sizes

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58, March 26, 2012 / Rules and Regulations

10.6. Hazardous decomposition products
Carbon monoxide, carbon dioxide, nitrogen oxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Ammonium hydroxide (1336-21-6)

LD50 oral rat 350 mg/kg

ATE (oral) 350.000 mg/kg

Sodium hydroxide (1310-73-2)

LD50 dermal rabbit 1350 mg/kg

ATE CLP (dermal) 1350.000 mg/kg body weight

1,2-Benzisothiazolin-3-one (2634-33-5)

LD50 oral rabbit 1020 mg/kg

ATE CLP (oral) 1020.000 mg/kg body weight

Skin corrosion / irritation : Not classified

: pH: 8.5 - 9.5

Serious eye damage / irritation : Not classified

: pH: 8.5 - 9.5

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ammonium hydroxide (1336-21-6)

LC50 fish 1 8.2 mg/l (Exposure time: 96 h - Species: Pimephales promelas)

EC50 Daphnia 1 0.66 mg/l (Exposure time: 48 h - Species: water flea)

EC50 Daphnia 2 0.66 mg.l (Exposure time: 48 h - Species: Daphnia pulex)

Sodium hydroxide (1310-73-2)

LC50 fish 1 45.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

12.2. Persistence and degradability

Davidson Marking System® Orange Dye (all sizes) (proprietary)

Persistence and degradability Not established.

Ammonium hydroxide (1336-21-6)

Persistence and degradability Not established.

1,2-Benzisothiazolin-3-one (2634-33-5)

Persistence and degradability Not established.

12.3. Bioaccumulative potential

Davidson Marking System® Orange Dye (all sizes) (proprietary)

Bioaccumulative potential Not established.

Ammonium hydroxide (1336-21-6)

Bioaccumulative potential Not established.

1,2-Benzisothiazolin-3-one (2634-33-5)

Log Pow 1.3 (at 25°C)

Bioaccumulative potential Not established.

Davidson Marking System® Orange Dye all sizes

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58, March 26, 2012 / Rules and Regulations

12.4. Mobility in soil

No additional information available.

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/state and national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport Information

In accordance with ADR / RID / IMDG / IATA / AND

14.1. UN number

Not applicable

14.2. UN proper shipping name

US Department of Transportation (DOT) : Not regulated.

Hazard Classes

14.3. Additional Information

Other information : No supplementary information available

Overland Transport

ADR : Not regulated.

Transport by sea

IMDG : Not regulated.

Air transport

IATA : Not regulated.

SECTION 15: Regulatory information

15.1. US Federal regulations

Ammonium hydroxide (1336-21-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Sodium hydroxide (1310-73-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

1,2-Benzisothiazolin-3-one (2634-33-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Ammonium hydroxide (1336-21-6)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification Class E - Corrosive Material

Sodium hydroxide (1310-73-2)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification Class E - Corrosive Material

1,2-Benzisothiazolin-3-one (2634-33-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification Class D Division 2 Subdivision B - Toxic material causing other toxic effects.

EU-Regulations

Ammonium hydroxide (1336-21-6)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Sodium hydroxide (1310-73-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

1,2-Benzisothiazolin-3-one (2634-33-5)

Davidson Marking System® Orange Dye all sizes

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58, March 26, 2012 / Rules and Regulations

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.2.2. National regulations

Davidson Marking System® Orange Dye (all sizes) (proprietary)

Components listed on the United States TSCA (Toxic Substances Control Act) inventory.

Components listed on the Canadian DSL (Domestic Substances List) inventory.

Ammonium hydroxide (1336-21-6)

Listed on the AICS (the Australian Inventory of Chemical Substances)

Listed on Inventory of Existing Chemical Substances (IECSC)

Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory

Listed on the Korean ECL (Existing Chemical List) inventory

Listed on New Zealand - Inventory of Chemicals (NZIoC)

Listed on Inventory of Chemicals and Chemical Substances (PICCS)

Poisonous and Deleterious Substances Control Law

Listed on the Canadian Ingredient Disclosure List

Sodium hydroxide (1310-73-2)

Listed on the AICS (the Australian Inventory of Chemical Substances)

Listed on Inventory of Existing Chemical Substances (IECSC)

Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory

Listed on the Korean ECL (Existing Chemical List) inventory

Listed on New Zealand - Inventory of Chemicals (NZIoC)

Listed on Inventory of Chemicals and Chemical Substances (PICCS)

Poisonous and Deleterious Substances Control Law

Listed on the Canadian Ingredient Disclosure List

1,2-Benzisothiazolin-3-one (2634-33-5)

Listed on the AICS (the Australian Inventory of Chemical Substances)

Listed on Inventory of Existing Chemical Substances (IECSC)

Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory

Listed on the Korean ECL (Existing Chemical List) inventory

Listed on New Zealand - Inventory of Chemicals (NZIoC)

Listed on Inventory of Chemicals and Chemical Substances (PICCS)

15.3. US State regulations

Ammonium hydroxide (1336-21-6)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities

U.S. - Louisiana - Reportable Quantity list for Pollutants

U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1

U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2

U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity

U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1

U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2

U.S. - Massachusetts - Right To Know List

U.S. - Massachusetts - Toxics Use Reduction Act

U.S. - Michigan - Polluting Materials List

U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - New Jersey - Special Health Hazards Substances List

U.S. - New Jersey - TCPA - Extraordinarily Hazardous Substances (EHS)

U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

U.S. - Pennsylvania - RTK (Right to Know) - List

Davidson Marking System® Orange Dye all sizes

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58, March 26, 2012 / Rules and Regulations

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

Sodium hydroxide (1310-73-2)

U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Acute

U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)

U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)

U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities

U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations

U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (Els)

U.S. - Idaho - Occupational Exposure Limits - TWAs

U.S. - Louisiana - Reportable Quantity list for Pollutants

U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1

U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2

U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity

U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1

U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2

U.S. - Massachusetts - Right To Know List

U.S. - Massachusetts - Toxics Use Reduction Act

U.S. - Michigan - Occupational Exposure Limits - TWAs

U.S. - Michigan - Polluting Materials List

U.S. - Minnesota - Chemicals of High Concern

U.S. - Minnesota - Hazardous Substance List

U.S. - Minnesota - Permissible Exposure Limits - Ceilings

U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - New Jersey - Special Health Hazards Substances List

U.S. - New York - Occupational Exposure Limits - TWAs

U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 1-Hour

U.S. - Oregon - Permissible Exposure Limits - TWAs

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

U.S. - Pennsylvania - RTK (Right to Know) List

U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 1-Hour

U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - Annual

U.S. - South Carolina - Toxic Air Pollutants - Maximum Allowable Concentrations

U.S. - South Carolina - Toxic Air Pollutants - Pollutant Categories

U.S. - Tennessee - Occupational Exposure Limits - Ceilings

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

U.S. - Vermont - Permissible Exposure Limits - Ceilings

U.S. - Washington - Permissible Exposure Limits - Ceilings

U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emission From Stack Heights 25 Feet to Less Than 40 Feet

U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emission From Stack Heights 40 Feet to Less Than 75 Feet

U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emission From Stack Heights 75 Feet or Greater

U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emission From Stack Heights Less Than 25 Feet

1,2-Benzisothiazolin-3-one (2634-33-5)

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

SECTION 16: Other information

Other information : None

Full Text of H-phrases: see section 16:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Skin Corr. 1A	Skin corrosion / irritation Category 1A
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage

HMIS III Rating

Davidson Marking System® Orange Dye all sizes

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58, March 26, 2012 / Rules and Regulations

Davidson Marking System® Green Dye	
HEALTH	1
FLAMMABILITY	0
PHYSICAL	0
PERSONAL PROTECTION	H

Health	: 1 Slight Hazard - Irritation or minor reversible injury possible
Flammability	: 0 Minimal Hazard - Materials that will not burn
Physical	: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
Personal Protection	: H - Splash goggles, Gloves, Synthetic apron, Vapor respirator

SDS US (GHS HazCom 2012) - HMIS III

While Bradley Products, Inc. believes the data set forth herein are accurate as of the date hereof, Bradley Products, Inc. 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.