



Dual Stain Detection Powder, Blue/Brown

Safety Data Sheet

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

Revision date: 01/05/2015

Supersedes: 01/26/2011

Version:

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

1.1. Product identifier

Product form : Mixture
Product name. : Dual Stain Detection Powder, Blue/Brown
Product code : DS100

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

Use of the substance/preparation : Dyestuff

1.3. Details of the supplier of the safety data sheet

SIRCHIE Finger Print Laboratories
100 Hunter Place
27596 Youngsville, NC - USA
T 919-554-2244; 800-356-7311 - F 919-554-2266; 800-899-8181
<http://www.sirchie.com>

1.4. Emergency telephone number

Emergency number : 1.800.424.9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

| | |
|---------------------|------|
| Ox. Sol. 2 | H272 |
| Acute Tox. 4 (Oral) | H302 |
| Skin Corr. 1B | H314 |

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Warning

Hazard statements (GHS-US) :

H272 - May intensify fire; oxidizer
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage

Precautionary statements (GHS-US) :

P210 - Keep away from open flames, sparks. - No smoking.
P220 - Keep/Store away from combustible materials.
P221 - Take any precaution to avoid mixing with combustible materials.
P260 - Do not breathe dust, fume, vapors.
P264 - Wash all exposed skin thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product
P280 - Wear eye protection, protective gloves.
P301+P312 - If swallowed, call a doctor if you feel unwell.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER/doctor/...
P321 - Specific treatment (see information on this label)
P330 - If swallowed, rinse mouth.
P363 - Wash contaminated clothing before reuse
P370+P378 - In case of fire: Use CO2, dry chemical, foam, water spray for extinction.
P405 - Store locked up
P501 - Dispose of contents/container to local/regional/national/international regulations.

2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

2.4. Unknown acute toxicity (GHS US)

No data available

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | Classification (GHS-US) |
|----------------|---------------------|-------|--|
| methylene blue | (CAS No.)61-73-4 | <= 45 | Acute Tox. 4 (Oral), H302 |
| talc | (CAS No.)14807-96-6 | 25 | Not classified |
| silver nitrate | (CAS No.)7761-88-8 | 15 | Ox. Sol. 2, H272 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 |

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

- Reactivity : Corrosive vapors. May be corrosive to metals. On heating/burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide).

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 : On land, sweep or shovel into suitable containers. Minimize generation of dust. 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.

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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 : Keep container closed when not in use. |
| Incompatible products | : Strong bases. strong acids. |
| Incompatible materials | : Sources of ignition. Direct sunlight. |

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| silver nitrate (7761-88-8) | | |
|----------------------------|-------------------------------------|------------------------|
| USA ACGIH | ACGIH TWA (mg/m ³) | 0.01 mg/m ³ |
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | 0.01 mg/m ³ |

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure. Gas mask. Gloves. Safety glasses.



| | |
|------------------------|---|
| 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 | : Solid |
| Appearance | : Powders. |
| Color | : Amber. brown. |
| Odor | : Aromatic odour. |
| Odor threshold | : No data available |
| pH | : No data available |
| 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 |
| Solubility | : Soluble in water. |
| 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

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SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive vapors. May be corrosive to metals. On heating/burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide).

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

No reactivity hazard other than the effects described in sub-sections below.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. High temperature. None under recommended storage and handling conditions (see section 7). Overheating. Open flame.

10.5. Incompatible materials

strong acids. Strong bases.

10.6. Hazardous decomposition products

Corrosive vapors. Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed.

| methylene blue (61-73-4) | |
|--------------------------|------------------|
| LD50 oral rat | 1180 mg/kg (Rat) |

| silver nitrate (7761-88-8) | |
|----------------------------|------------------|
| LD50 oral rat | 1173 mg/kg (Rat) |

| | |
|---|--|
| Skin corrosion/irritation | : Causes severe skin burns and eye damage. |
| Serious eye damage/irritation | : Not classified |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classifiedBased on available data, the classification criteria are not met |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classifiedBased on available data, the classification criteria are not met |
| Specific target organ toxicity (single exposure) | : Not classified |
| Specific target organ toxicity (repeated exposure) | : Not classifiedBased on available data, the classification criteria are not met |
| Aspiration hazard | : Not classifiedBased on available data, the classification criteria are not met |
| Potential Adverse human health effects and symptoms | : Based on available data, the classification criteria are not met. |

SECTION 12: Ecological information

12.1. Toxicity

| methylene blue (61-73-4) | |
|--------------------------|------------------------------------|
| LC50 fish 1 | 13 mg/l (48 h; Oryzias latipes) |
| EC50 Daphnia 1 | 2.26 mg/l (48 h; Daphnia magna) |
| LC50 fish 2 | 18 mg/l (96 h; Mystus vittatus) |
| EC50 Daphnia 2 | 4.93 mg/l (24 h; Daphnia magna) |
| TLM fish 1 | 10 - 100,48 h; Poecilia reticulata |

| silver nitrate (7761-88-8) | |
|---|--|
| LC50 fish 1 | 0.0039 mg/l (96 h; Pimephales promelas; Flow-through system) |
| EC50 Daphnia 1 | 0.0006 mg/l (48 h; Daphnia magna; LOCOMOTOR EFFECT) |
| LC50 fish 2 | 0.006 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss) |
| EC50 Daphnia 2 | 0.006 mg/l (48 h; Crangon sp.) |
| Threshold limit other aquatic organisms 1 | 0.006 mg/l (Pseudomonas putida; TOXICITY TEST) |
| Threshold limit algae 1 | 0.0007 mg/l (Microcystis aeruginosa; TOXICITY TEST) |
| Threshold limit algae 2 | 0.0095 mg/l (Scenedesmus quadricauda; TOXICITY TEST) |

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12.2. Persistence and degradability

| Dual Stain Detection Powder, Blue/Brown | |
|---|--|
| Persistence and degradability | Not established. |
| methylene blue (61-73-4) | |
| Persistence and degradability | Biodegradability in water: no data available. Photodegradation in the air. |
| silver nitrate (7761-88-8) | |
| Persistence and degradability | Biodegradability: not applicable. |
| Biochemical oxygen demand (BOD) | Not applicable |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |
| BOD (% of ThOD) | Not applicable |

12.3. Bioaccumulative potential

| Dual Stain Detection Powder, Blue/Brown | |
|---|--|
| Bioaccumulative potential | Not established. |
| methylene blue (61-73-4) | |
| Log Pow | 5.85 (Estimated value) |
| Bioaccumulative potential | Not bioaccumulative. |
| silver nitrate (7761-88-8) | |
| BCF fish 1 | 11 - 19 (Micropterus salmoides; CHRONIC) |
| BCF fish 2 | 15 - 150 (Lepomis macrochirus; CHRONIC) |
| Log Pow | 0.19 (Estimated value) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

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/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

| Dual Stain Detection Powder, Blue/Brown | |
|---|--|
| Listed on SARA Section 313 (Specific toxic chemical listings) | |

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15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

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

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Listed as carcinogen on NTP (National Toxicology Program)

15.3. US State regulations

No additional information available

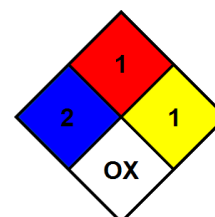
SECTION 16: Other information

| | |
|-----------------------|---|
| Indication of changes | : Revision - See : *. |
| Data sources | : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. |
| Training advice | : Normal use of this product shall imply use in accordance with the instructions on the packaging. Keep in tightly closed container. Keep cool and dry. Avoid all ignition sources - heat, open flame, sparks. Avoid incompatible materials. Avoid dust creation and accumulation. Avoid inhalation and ingestion. Avoid contact with eyes. Wash thoroughly after handling. |
| Other information | : None. |

Full text of H-phrases: see section 16:

| | |
|---------------------|---|
| Acute Tox. 4 (Oral) | Acute toxicity (oral) Category 4 |
| Ox. Sol. 2 | Oxidizing solids Category 2 |
| Skin Corr. 1B | skin corrosion/irritation Category 1B |
| H272 | May intensify fire; oxidizer |
| H302 | Harmful if swallowed |
| H314 | Causes severe skin burns and eye damage |

| | |
|----------------------|---|
| NFPA health hazard | : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given. |
| NFPA fire hazard | : 1 - Must be preheated before ignition can occur. |
| NFPA reactivity | : 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently. |
| NFPA specific hazard | : OX - This denotes an oxidizer, a chemical which can greatly increase the rate of combustion/fire. |



HMIS III Rating

| | |
|---------------------|---|
| Health | : 2 Moderate Hazard - Temporary or minor injury may occur |
| Flammability | : 1 Slight Hazard |
| Physical | : 1 Slight Hazard |
| Personal Protection | : E |

SDS US (GHS HazCom 2012)

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