

MATERIAL SAFETY DATA SHEET According to ANSI Z400.1-1998/ISO 11014-1:1994

Trichrome Stain - 4001

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product Type Stain - 4001
Product Name Trichrome Stain
Catalogue Number(s) 400101 AND 400112

Manufacturer, importer, supplier Meridian Bioscience, Inc. 3471 River Hills Drive, Cincinnati, OH 45244 U.S.A.

(513) 271-3700

EMERGENCY TELEPHONE

NUMBER

EFHO

CHEMTREC: 1-800-424-9300

| | 2. COMPOSITION/INFORMATION ON INGREDIENTS | | | | |
|---------|---|----------|-------------|------------|-------------|
| CAS | Chemical Name | % Weight | ACGIH* | ACGIH* | OSHA* |
| 64-19-7 | Acetic acid | 1.02 | 15 ppm STEL | 10 ppm TWA | 10 ppm TWA; |

2 COMPOSITION/INFORMATION ON INCREDIENTS

| 64-19-7 | Acetic acid | 1.02 | 15 ppm STEL | 10 ppm TWA | 10 ppm TWA; 25 mg/m3 TWA |
|------------|--|------|---------------|-------------|-----------------------------|
| 4197-07-3 | Disodium 4,5-dihydroxy- 3-phenylazonaphthalene- 2,7-disulphonate | 0.59 | N/A | N/A | N/A |
| 12067-99-1 | Tungsten hydroxide oxide phosphate | 0.68 | 10 mg/m3 STEL | 5 mg/m3 TWA | N/A |
| 2353-45-9 | Fast green fcf | 0.15 | N/A | N/A | N/A |
| 5141-20-8 | Light green SF | 0.15 | N/A | N/A | N/A |

^{*} ACGIH - Occupational Exposure Limits - STELs

3. HAZARDS IDENTIFICATION

| Emergency Overview: | | |
|---------------------|--|--|
| | The product contains no substances which at their given concentration, are considered to | |
| | be hazardous to health | |

| Eye contact | Contact with eyes can cause irritation. |
|------------------------------|--|
| Skin contact | Exposure can cause skin irritation. |
| Inhalation: | Avoid breathing vapors or mists. |
| Ingestion: | May be harmful if swallowed. |
| General advice | As with any chemical, use caution when handling. |
| Properties affecting health | Irritating to eyes |
| Principle Routes of Exposure | Absorption, inhalation, and ingestion |

4. FIRST AID MEASURES

| General advice | Show this safety data sheet to the doctor in attendance |
|----------------|---|
| | Avoid contact with eyes |
| Skin contact | Wash off immediately with soap and plenty of water |
| Eye contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes |
| | If eye irritation persists, seek medical attention |
| Inhalation: | Move to fresh air. |
| | If exposure symptoms persist, seek medical attention. |
| Ingestion: | Do not swallow. Rinse mouth with water and afterwards drink plenty of water. |

^{*} ACGIH - Occupational Exposure Limits - TWAs

^{*} OSHA - Final PELs - Time Weighted Averages (TWAs)

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| | Consult a physician if necessary |
|--------------------|----------------------------------|
| Notes to physician | Treat symptomatically |

| 5. F | FIRE-FIGHTING N | MEASURES |
|------|-----------------|----------|
|------|-----------------|----------|

| Flash point | N/D |
|---|---|
| Suitable extinguishing media | carbon dioxide (CO2) |
| | alcohol-resistant foam |
| | dry chemical |
| | water spray |
| Extinguishing media which must not be used for safety reasons | No information available |
| Special protective equipment for firefighters | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear |
| Specific methods | No information available |

6. ACCIDENTAL RELEASE MEASURES

| Personal precautions | Ensure adequate ventilation, especially in confined areas |
|---------------------------|---|
| Environmental precautions | No special environmental precautions required |
| Methods for cleaning up | Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container |
| | After cleaning, flush away traces with water |

7. HANDLING AND STORAGE

Handling

| Safe handling advice | Do not breathe vapours or spray mist. Ensure that ventilation is adequate |
|----------------------|---|
| | before using this product. |

Storage

| Technical measures/Precautions | Store in a tightly closed container. Store in a cool, dry, well ventilatied area away from incompatible substances. |
|--------------------------------|---|
| Incompatible products | Avoid strong bases |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| Engineering measures | Ensure adequate ventilation, especially in confined areas |
|-------------------------------|---|
| Personal protective equipment | |
| Hand protection | Wear appropriate protective gloves |
| Eye protection | Wear tightly fitting safety goggles or safety glasses with side-shields |
| Respiratory protection | Avoid inhalation of vapors. |
| Skin and body protection | Light weight protective clothing to protect exposed skin |
| Hygiene measures | Handle in accordance with good industrial hygiene and safety practice |
| | Keep away from food, drink and animal feeding stuffs |
| Environmental exposure | No information available |
| controls | |

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Form Liquid.

Odor Mild Acetic Acid.
Color Purplish/black.

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Important Health Safety and Environmental Information

pH N/D
Boiling point/range N/D
Flash point N/D

Water solubility No information available.

| 10. STABILITY AND REACTIVITY | | | |
|--|---|--|--|
| Stability | Stable under normal conditions. | | |
| Conditions to avoid | Extremes of temperature and direct sunlight | | |
| Materials to avoid Incompatible with strong bases. | | | |
| Hazardous decomposition products | None under normal use. | | |
| Polymerization | Polymerization does not occur. | | |

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

Product Information

| LD50/dermal/rat = | lermal/rat = No information available | |
|---|---------------------------------------|--|
| LD50/oral/rat = | No information available | |
| Chronic toxicity | No information available. | |
| carcinogenic effects No information available. | | |
| mutagenic effects | No information available. | |
| Reproductive toxicity No information available. | | |
| Target Organ Effects | No information available. | |

12. ECOLOGICAL INFORMATION

Component Information

| CAS | Chemical Name | % Weight | ACGIH* |
|------------|--|----------|-------------|
| 64-19-7 | Acetic acid | 1.02 | 10 ppm TWA |
| 4197-07-3 | Disodium 4,5-dihydroxy- 3-phenylazonaphthalene- 2,7-disulphonate | 0.59 | N/A |
| 12067-99-1 | Tungsten hydroxide oxide phosphate | 0.68 | 5 mg/m3 TWA |
| 2353-45-9 | Fast green fcf | 0.15 | N/A |
| 5141-20-8 | Light green SF | 0.15 | N/A |

^{*} ACGIH - Occupational Exposure Limits - TWA's

| Ecotoxicity effects | No information available |
|---------------------|--------------------------|

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products

In accordance with local and national regulations.

Contaminated packaging

Empty containers should be rinsed and disposed of as appropriate for glass and plastic

containers.

Further information

14. TRANSPORT INFORMATION

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DOT

UN-No Not required Hazard Class Not applicable

Proper shipping name

Packing groupNot applicableSubsidiary RiskNot applicableDescriptionTrichrome Stain

IATA

UN-No Not required Hazard Class Not applicable

Proper shipping name

Packing groupNot applicableSubsidiary RiskNot applicableDescriptionTrichrome Stain

15. REGULATORY INFORMATION

U.S. Inventories

| CAS | Chemical Name | % Weight | TSCA* |
|------------|--|----------|-------|
| 64-19-7 | Acetic acid | 1.02 | N/A |
| 4197-07-3 | Disodium 4,5-dihydroxy- 3-phenylazonaphthalene- 2,7-disulphonate | 0.59 | N/A |
| 12067-99-1 | Tungsten hydroxide oxide phosphate | 0.68 | N/A |
| 2353-45-9 | Fast green fcf | 0.15 | N/A |
| 5141-20-8 | Light green SF | 0.15 | N/A |

^{*} TSCA - (Toxic Substances Control Act) - Export Notification

International Inventories

| CAS | Chemical Name | % Weight | EINECS* | DSL - Canada* | ENCS* |
|------------|--|----------|-----------|---------------|----------------|
| 64-19-7 | Acetic acid | 1.02 | 200-580-7 | Present | 2-688 |
| 4197-07-3 | Disodium 4,5-dihydroxy- 3-phenylazonaphthalene- 2,7-disulphonate | 0.59 | 224-085-0 | N/A | N/A |
| 12067-99-1 | Tungsten hydroxide oxide phosphate | 0.68 | 235-087-6 | Present | 1-1097 |
| 2353-45-9 | Fast green fcf | 0.15 | 219-091-5 | Present | 5-5228 |
| 5141-20-8 | Light green SF | 0.15 | 225-906-5 | Present | 5-4347; 5-4374 |

^{*} EINECS - EINECS

16. OTHER INFORMATION

PREPARED ON 02/05/2009

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Meridian Bioscience, Inc. shall not be held liable for any damages resulting from handling or from contact with the above product.

End of Safety Data Sheet

^{*} DSL - Canada - Domestic Substances List (DSL)

^{*} ENCS - Japan Existing and New Chemical Substances (ENCS)