

Solution No (4)

Material Safety Data Sheet



SAFRANIN, GRAM METHOD

Revised: 03/06/2010

Replaces: 11/23/2009

Printed: 03/06/2010

Carolina Biological Supply Company

2700 York Rd | Burlington, NC 27215 • to order: 800.334.5551 • for support: 800.227.1150

CAROLINA

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Section 1 - Product Description

Product Name: Safranin Counterstain for Gram Method

Product Code(s): 88-6983, 88-6985, 89-2285, 89-2261, 89-2301, 89-2305, 82-1050, 15-4708, 15-4708A, 15-4708CA, 15-4718, 15-4724A

Size: Various

Chemical Name: N/A

CAS Number: See section 2

Formula: See section 2

Synonyms: N/A

Distributor: Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215

Chemical Information: 800-227-1150 (8am-5pm (ET) M-F) Chemtrec 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 - Composition / Information on Ingredients

Principal Hazardous Components: Hexane (Denaturant) (CAS# 110-54-3) 0.12%; Methyl isobutyl ketone (Denaturant) (CAS# 108-10-1) 0.38%; Ethyl alcohol (CAS# 64-17-5) 9.5%; Safranin (CAS# 477-73-6) 0.25%

TLV units: (Hexane) ACGIH-TLV 50 ppm (TWA)

(Methyl isobutyl ketone) ACGIH-TLV 50 ppm (TWA), (STEL) 75 ppm

(Ethyl alcohol) ACGIH-TLV 1,000 ppm (TWA)

(Safranin) N/A

PEL units: (Hexane) OSHA-PEL 500 ppm (TWA)

(Methyl isobutyl ketone) OSHA-PEL 100 ppm (TWA)

(Ethyl Alcohol) OSHA-PEL 1,000 ppm (TWA)

(Safranin) N/A

Section 3 - Hazard Identification

Emergency Overview: Irritating to eyes, respiratory system and skin.

Potential Health Effects:

Eyes: May cause irritation.

Ingestion: Harmful if swallowed.

Skin: Irritating to skin.

Inhalation: Irritating to respiratory system.

Section 4 - First Aid Measures

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Emergency and First Aid Procedures:

Eyes - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin - After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of ...
(Water, unless specified as a water reactive material).

Ingestion - If swallowed, seek medical advice immediately and show this container or label.

Inhalation - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Section 5 - Firefighting Procedures

Flash Point (Method Used): Ethanol: 13.1 C (cc)

NFPA Rating:

Health: 0

Fire: 2

Reactivity: 0

Extinguisher Media: Use media suitable to extinguish surrounding fire.

Flammable Limits in Air % by Volume: Ethyl alcohol: LEL: 3.3% Ethyl Alcohol: UEL: 19%

Autoignition Temperature: Ethyl Alcohol: 423 °C

Special Firefighting Procedures: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Vapours may travel back to ignition source. Closed Containers exposed to heat may explode.

Fire or excessive heat may produce hazardous decomposition products.

Risk of explosion by shock, friction, fire or other sources of ignition.

Section 6 - Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Ventilate area of spill. Eliminate all sources of ignition. Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

Section 7 - Special Precautions

Precautions to Take in Handling or Storing: This material should be kept in an area suitable for the storage of flammable liquids.

Bond and ground containers when transferring liquid.

Section 8 - Protection Information

Respiratory Protection (Specify Type): None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Ventilation:

Local Exhaust: Yes

Mechanical(General): Yes

Special: No

Other: No

Protective Gloves: Natural rubber, Neoprene, PVC or equivalent.

Eye Protection: Splash proof chemical safety goggles should be worn.

Other Protective Clothing or Equipment: Lab coat, apron, eye wash, safety shower.

Section 9 - Physical Data

Molecular Weight: N/A

Boiling Point: N/A

Vapor Density(Air=1): N/A

Melting Point: N/A

Vapor Pressure: N/A

Specific Gravity (H2O=1): < 1

Percent Volatile by Volume: 100%
Solubility in Water: Soluble

Evaporation Rate (BuAc=1): N/A
Appearance and Odor: Red liquid with characteristic odor.

Section 10 - Reactivity Data

Stability: Stable
Conditions to Avoid: Heat and sources of ignition.
Keep away from sources of ignition - No smoking.
Incompatibility (Materials to Avoid): Water-reactive Material, Oxidizers,
Hazardous Decomposition Products: COx,
Hazardous Polymerization: Will not occur

Section 11 - Toxicity Data

Toxicity Data: (Safranin) None
(Hexane) orl-rat LD50 25 gm/kg
(Methyl isobutyl ketone) orl-rat LD50 2080 mg/kg
(Ethyl alcohol) orl-rat LD50 7060 mg/kg

Effects of Overexposure:

Acute: See section 3

Chronic: Reproductive data cited. Mutation data cited. Not listed as a carcinogen by IARC, NTP or OSHA.

Conditions Aggravated by Overexposure: Eye disorders, Skin disorders, Respiratory disorders,

Target Organs: Eyes, Skin, Respiratory system,

Primary Route(s) of Entry: Inhalation.

Section 12 - Ecological Data

EPA Waste Numbers: N/A

Section 13 - Disposal Information

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Section 14 - Transport Information

DOT Proper Shipping Name: N/A

Section 15 - Regulatory Information

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Acute

Name List:

Hexane - No
Methyl isobutyl ketone - No
Ethyl alcohol - No
Safranin - No

Chemical Category:

Hexane - No
Methyl isobutyl ketone - No
Safranin - No
Ethyl alcohol - No

CERCLA Section 103 RQ(lb.): Hexane - No

Methyl isobutyl ketone - 5000 lbs

Ethyl alcohol - No

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Safranin - No
RCRA Section 261.33: Hexane - No
Methyl isobutyl ketone - No
Ethyl alcohol - No
Safranin - No

Section 16 - Additional Information

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists
CAS Number	Chemical Services Abstract Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation
IARC	International Agency of Research on Cancer
N/A	Not Available
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act