

SPI Supplies Division

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Manufacturer's CAGE: 1P573

Safety Data Sheet

Date Effective: May 18, 2016

02589-AB, 02589-MB

SPI-Chem™ Safranin O Light Microscope Stain

Section 1.1: Identification

Chemical Name/Synonyms..... Safranin O; 3,7-Diamino-2,8-dimethyl-5-phenylphenazinium chloride

Product or Trade Name..... SPI-Chem™ Safranin O Light Microscope Stain

CAS #'s.....477-73-6

Chemical Formula..... C₂₀H₁₉ClN₄

Section 1.2: Relevant Uses/Restrictions

Relevant Use: Laboratory chemicals for research, testing & analysis, and educational use.

Not intended for clinical or diagnostic uses.

Section 1.3: Supplier of the Safety Data Sheet

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Section 1.4: Emergency telephone number

Emergencies

Contacting CHEMTREC:

24 Hour Emergency Use Only #'s...

Worldwide phone: 1-(703)-741-5970

Toll-free phone: 1-(800)-424-9300 USA + Canada only

Section 2: Hazard Identification

2.1 Classification of the substance

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin Corrosion/Irritation (Category 2)

Serious Eye Damage/Eye Irritation (Category 2)

2.2 Label elements

Pictogram



Signal Word: Warning

Hazard statements:

H315: Causes skin irritation

H319: Causes serious eye irritation

Precautionary statements:

P264: Wash face, hands, and any exposed skin thoroughly after handling

P280: Wear protective gloves/protective clothing/eye protection/face protection

P302+352: IF ON SKIN: Wash with soap and water

P332+313: If skin irritation occurs: Get medical advice/attention

P362: Take off contaminated clothing and wash before reuse

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

P337+313: If eye irritation persists get medical advice/attention

2.3 Other Hazards:

RTECS # SG1623000

None identified

Hazardous Material Information System USA

Health..... 2
Fire Hazard..... 0
Reactivity..... 0
Personal Protection.....

NFPA Rating (estimated)

Health..... 2
Flammability..... 0
Reactivity..... 0

Section 3: Composition

3.1 Substances:

Safranin O CAS# 477-73-6 EC# 207-518-8 ~95%
3,7-Diamino-2,8-dimethyl-5-phenylphenazinium chloride

Section 4: First Aid Measures

4.1 Description of first aid measures:

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Obtain medical attention.

Inhalation Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Obtain medical attention.

Ingestion Do not induce vomiting. Clean mouth with water. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Most important symptoms/effects No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

Section 5: Fire Fighting Measures

Extinguishing media

Suitable Extinguishing Media Water spray. Carbon dioxide (CO₂). Dry chemical. chemical foam.

Unsuitable Extinguishing Media No information available

Flash Point Not applicable

Method - No information available

Autoignition Temperature No information available

Explosion Limits

Upper No data available

Lower No data available

5.1 Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full

5.2 Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

Hazardous Combustion Products

Hydrogen chloride gas Nitrogen oxides (NO_x) Carbon monoxide (CO) Carbon dioxide (CO₂)

Section 6: Accidental Release Measures

6.1 Personal precautions

Use personal protective equipment. Ensure adequate ventilation.

6.2 Environmental precautions

Should not be released into the environment.

6.3 Methods and material for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

6.4 Reference to other sections
See Section 13 for disposal information.

Section 7: Handling and Storage

7.1 Precautions for safe handling

Ensure adequate ventilation. Avoid contact with skin and eyes. Do not breathe dust. Wash hands before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

7.3 Specific end uses

Relevant Use: Laboratory chemicals for research, testing & analysis, and educational use.
Not intended for clinical or diagnostic uses.

Section 8: Exposure Controls and Personal Protection

8.1 Control parameter and Personal Protection

Workplace exposure limits: This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Biological limit values: No further relevant information available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas.

8.2.2 Individual protection measures

Eye/face Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection: Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

8.2.3 Environmental exposure controls

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical State Solid

Appearance Dark brown

Odor Odorless

Odor Threshold No information available

pH No information available

Melting Point/Range No data available

Boiling Point/Range No information available

Flash Point Not applicable

Evaporation Rate negligible

Flammability (solid,gas) No information available

Flammability or explosive limits

Upper No data available
Lower No data available
Vapor Pressure negligible
Vapor Density No information available
Relative Density No information available
Solubility Soluble in water
Partition coefficient; n-octanol/water No data available
Autoignition Temperature No information available
Decomposition temperature No information available
Viscosity No information available
Molecular Formula C₂₀H₁₉ClN₄
Molecular Weight 350.6128

9.2 Other information

No further relevant information available.

Section 10: Stability and Reactivity

10.1 Reactivity hazard: None known, based on information available.

10.2 Chemical Stability Stable under normal conditions.

10.3 Possibility of Hazardous Reactions: None under normal processing.
Hazardous Polymerization: No information available.

10.4 Conditions to avoid: Temperatures above 240°C. Avoid dust formation.

10.5 Incompatible materials: No information available.

10.6 Hazardous decomposition products: Hydrogen chloride gas, Nitrogen oxides (NO_x), Carbon monoxide (CO), Carbon dioxide (CO₂)

Section 11: Toxicological Information

Information on the likely routes of exposure

11.1 Information on toxicological effects

- a. acute toxicity: No acute toxicity information is available for this product.
- b. skin corrosion/irritation: Irritating to eyes and skin.
- c. serious eye damage/irritation: No information available.
- d. respiratory or skin sensitization: No information available.
- e. germ cell mutagenicity: No information available
- f. carcinogenicity: Not listed by IARC, NTP, ACGIH, OR OSHA.
- g. reproductive toxicity: No information available
- h. STOT-single exposure: None known
- i. STOT-repeated exposure: None known
- j. aspiration hazard: No information available.

11.2 Additional information

Symptoms / effects, both acute and delayed: No information available
Endocrine Disruptor Information: No information available

Other Adverse Effects: The toxicological properties have not been fully investigated.
See actual entry in RTECS for complete information, RTECS # SG1623000.

Section 12: Ecological Information

12.1 Toxicity

Do not empty into drains.

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

No data available.

Section 13: Disposal Considerations

13.1 Waste treatment methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Section 14: Transport Information

DOT: Not regulated.

IATA: Not regulated.

IMDG: Not regulated.

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture

TSCA 12(b): Not applicable

SARA 313: Not applicable

SARA 311/312 Hazardous Categorization

Acute Health Hazard - Yes

Chronic Health Hazard - No

Fire Hazard - No

Sudden Release of Pressure Hazard - No

Reactive Hazard - No

Clean Water Act: Not applicable

Clean Air Act: Not applicable

OSHA Occupational Safety and Health Administration: Not applicable

CERCLA: Not applicable

California Proposition 65: This product does not contain any Proposition 65 chemicals

State Right-to-Know: CAS# 477-73-6 is listed on the New Jersey and Pennsylvania Right-to-Know Lists.

U.S. Department of Transportation

Reportable Quantity (RQ): No

DOT Marine Pollutant : No

DOT Severe Marine Pollutant: No

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class D2B Toxic materials

15.2 Chemical Safety Assessment

No further relevant information available.

Date of preparation: 18 May 2016.

Abbreviations and acronyms

Abbreviations and acronyms

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxicological

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

STEL: Short Term Exposure Limit

Section 16: Other Information

Disclaimer of Liability:

Caution! Do not use SPI Supplies products or materials in applications involving implantation within the body; direct or indirect contact with the blood pathway; contact with bone, tissue, tissue fluid, or blood; or prolonged contact with mucous membranes. Products offered by SPI Supplies are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. SPI Supplies will not provide to customers making devices for such applications any notice, certification, or information necessary for such medical device use required by US FDA (Food and Drug Administration) regulation or any other statute. SPI Supplies and Structure Probe, Inc. make no representation, promise, express warranty or implied warranty concerning the suitability of these materials for use in implantation in the human body or in contact with internal body tissues or fluids.

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