

SAFETY DATA SHEET

Preparation Date: 8/5/15

Revision Date: 8/5/15

Revision Number: G1

1. IDENTIFICATION

Product identifier

Product code: SA115
Product Name: SAFRANINE O

Other means of identification

Synonyms: 3,7-Diamino-2,8-dimethyl-5-phenylphenazinium chloride
 2,8-Dimethylphenosafranin
 Basic Red 2
 Brilliant Safranin BR
 Brilliant Safranin G
 Brilliant Safranin GR
 C.I. 50240
 Calcozine Red Y
 Cerven zasadita 2 [Czech]
 Gossypimine
 Hidaco Safranin
 Leather Red HT
 Mitsui Safranin
 Mitsui Safranin T
 Nippon Kagaku Safranin GK
 Nippon Kagaku Safranin T
 Phenazinium, 3,7-diamino-2,8-dimethyl-5-phenyl-, chloride
 Safranin
 Safranin O
 Safranin T
 Safranin
 Safranin A
 Safranin B
 Safranin G
 Safranin GF
 Safranin J
 Safranin O
 Safranin OK
 Safranin T
 Safranin TH
 Safranin TN
 Safranin TS
 Safranin Y
 Safranin YN
 Safranin ZH
 Safranin Superfine G
CAS #: 477-73-6
RTECS # SG1623000
CI#: Not available

1. IDENTIFICATION

Recommended use of the chemical and restrictions on use

Recommended use: Dyes.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000

Order Online At: <https://www.spectrumchemical.com>

Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|--|------------|
| Skin corrosion/irritation | Category 2 |
| Serious eye damage/eye irritation | Category 1 |
| Specific target organ toxicity (single exposure) | Category 3 |

Label elements

Danger

Hazard statements

Causes skin irritation
Causes serious eye damage
May cause respiratory irritation



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Wear protective gloves
 Wear eye/face protection
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Wash face, hands and any exposed skin thoroughly after handling

Precautionary Statements - Response

Specific treatment (see .? on this label)
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
 IF ON SKIN: Wash with plenty of soap and water
 If skin irritation occurs: Get medical advice/attention
 Take off contaminated clothing and wash before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
 Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

| |
|--|
| 3. COMPOSITION/INFORMATION ON INGREDIENTS |
|--|

| Components | CAS-No. | Weight % | Trade Secret |
|------------------------|----------|----------|--------------|
| Safranin O 477-73-6 | 477-73-6 | 100 | * |

| |
|------------------------------|
| 4. FIRST AID MEASURES |
|------------------------------|

First aid measures**General Advice:**

Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First aider needs to protect himself.

Skin Contact:

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact:

Flush eye with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.

Inhalation:

Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion:

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed

Symptoms Causes serious eye damage. Causes skin irritation. May cause respiratory irritation .

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media:

Dry chemical. Carbon dioxide (CO₂). Water spray mist or foam.

Unsuitable Extinguishing Media:

No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products:

Carbon Monoxide. Carbon Dioxide. Nitrogen Oxides, halogenated compounds

Specific hazards:

May be combustible at high temperatures
When heated to decomposition it emits irritating fumes.

Special Protective Actions for Firefighters

Specific Methods:

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions:

Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Evacuate personnel to safe areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid breathing dust. Avoid dust formation. Remove all sources of ignition. All equipment used when handling the product must be grounded.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment

Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up

Use appropriate tools to put the spilled solid in a suitable waste disposal container. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. All equipment used when handling the product must be grounded. Avoid dust formation. Remove all sources of ignition. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Avoid dust formation. Do not breathe vapours/dust. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Keep away from heat and sources of ignition. Store away from incompatible materials.

Incompatible Materials:

Oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters**National occupational exposure limits****United States**

| Components | OSHA | NIOSH | ACGIH | AIHA WHEEL |
|------------------------|------|-------|-------|------------|
| Safranin O 477-73-6 | None | None | None | None |

Canada

| Components | Alberta | British Columbia | Ontario | Quebec |
|------------------------|---------|------------------|---------|--------|
| Safranin O 477-73-6 | None | None | None | None |

Australia and Mexico

| Components | Australia | Mexico |
|------------------------|-----------|--------|
| Safranin O 477-73-6 | None | None |

Appropriate engineering controls**Engineering measures to reduce exposure:**

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment**Personal Protective Equipment**

- Eye protection:** Goggles or Safety glasses with side-shields
- Skin and body protection:** Chemical resistant apron. Long sleeved clothing. Gloves.
- Respiratory protection:** Wear respirator with dust filter. Be sure to use an approved/certified respirator or equivalent..
- Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|--|--|---|
| Physical state: Solid. | Appearance: No information available | Color: Dark brown. |
| Odor: No information available | Taste No information available | Molecular/Formula weight: 350.85 g/mole |
| Formula: C ₂₀ H ₁₉ N ₄ Cl | Flammability: No information available | Flash point (°C): No data available |
| Flashpoint (°C/°F): No information available. | Flash Point Tested according to: Not available | Autoignition Temperature (°C/°F): No information available |
| Lower Explosion Limit (%): No information available | Upper Explosion Limit (%): No information available | pH: No information available |
| Melting point/range(°C/°F): >240°C (464°F) | Boiling point/range(°C/°F): No information available | Bulk density: No information available |
| Decomposition temperature(°C/°F): No information available | Density (g/cm³): No information available | Specific gravity: No information available |
| Vapor pressure @ 20°C (kPa): No information available | Evaporation rate: No information available | Vapor density: No information available |
| VOC content (g/L): No information available | Odor threshold (ppm): No information available | Partition coefficient (n-octanol/water): No information available |
| Viscosity: No information available | Miscibility: No information available | Solubility: Soluble in cold water Soluble in hot water |

10. STABILITY AND REACTIVITY

Reactivity

Reactive with oxidizing agents

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials.

Incompatible Materials: Oxidizing agents.

Hazardous decomposition products: Carbon oxides. Nitrogen oxides (NO_x). Halogenated compounds.

Other Information

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Ingestion. Inhalation.

Acute Toxicity

Component Information

Safranine O - 477-73-6

- LD50/oral/rat = No information available
- LD50/oral/mouse = No information available
- LD50/dermal/rat = No information available
- LD50/dermal/rabbit = No information available
- LC50/inhalation/rat = No information available
- LC50/inhalation/mouse = No information available
- Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = No information available

LD50/oral/mouse =
Value - Acute Tox Oral = No information available

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available

VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye damage.. Contains cationic dye. It can cause permanent injury to the cornea and conjunctiva. Injury can range in severity from conjunctival edema to, hypermeia and purulent discharge to total opacification and even necrosis and sloughing of corneal stroma.

**Inhalation
Ingestion** May cause respiratory tract irritation.
May cause gastrointestinal tract irritation with nausea, vomiting, diarrhea. Animal studies have shown that it may affect behavior/central nervous system (convulsions or seizures) when administered intravenously. Animal testing showed that it may affect respiration (respiratory stimulation) if given intravenously.

Aspiration hazard No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity No information available

Sensitization: No information available

Mutagenic Effects: May affect genetic material
Experiments with bacteria and/or yeast have shown mutagenic effects

Carcinogenic effects: Not considered carcinogenic

| Components | IARC | ACGIH - Carcinogens | NTP | OSHA HCS - Carcinogens | Australia - Prohibited Carcinogenic Substances | Australia - Notifiable Carcinogenic Substances |
|------------|------------|---------------------|------------|------------------------|--|--|
| Safranin O | Not listed | Not listed | Not listed | Not listed | Not listed | Not listed |

Reproductive toxicity No data is available

Reproductive Effects: No information available
Developmental Effects: No information available
Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available
STOT - repeated exposure No information available
Target Organs: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.

Persistence and degradability: No information available

Bioaccumulative potential: No information available

Mobility: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

| Components | RCRA - F Series Wastes | RCRA - K Series Wastes | RCRA - P Series Wastes | RCRA - U Series Wastes |
|------------|------------------------|------------------------|------------------------|------------------------|
| Safranin O | None | None | None | None |

14. TRANSPORT INFORMATION

DOT

| | |
|------------------------------|--------------------------|
| UN-No: | Not Regulated |
| Proper Shipping Name: | No information available |
| Hazard Class: | No information available |
| Subsidiary Risk: | No information available |
| Packing Group: | None |
| ERG No: | No information available |
| Marine Pollutant | No data available |
| DOT RQ (lbs): | No information available |

TDG (Canada)

| | |
|------------------------------|--------------------------|
| UN-No: | Not Regulated |
| Proper Shipping Name: | No information available |
| Hazard Class: | No information available |
| Subsidiary Risk: | No information available |
| Packing Group: | No information available |
| Description: | No information available |

ADR

| | |
|------------------------------|--------------------------|
| UN-No: | Not Regulated |
| Proper Shipping Name: | No information available |
| Hazard Class: | No information available |
| Packing Group: | No information available |
| Subsidiary Risk: | No information available |
| Classification Code: | No information available |
| Description: | No information available |
| CEFIC Tremcard No: | No information available |

IMO / IMDG

| | |
|------------------------------|--------------------------|
| UN-No: | Not Regulated |
| Proper Shipping Name: | No information available |
| Hazard Class: | No information available |
| Subsidiary Risk: | No information available |
| Packing Group: | No information available |
| Description: | No information available |
| IMDG Page: | No information available |
| Marine Pollutant | No information available |
| MFAG: | No information available |
| Maximum Quantity: | No information available |

RID

| | |
|------------------------------|--------------------------|
| UN-No: | Not Regulated |
| Proper Shipping Name: | No information available |
| Hazard Class: | No information available |
| Subsidiary Risk: | No information available |
| Packing Group: | No information available |
| Classification Code: | No information available |
| Description: | No information available |

ICAO

| | |
|------------------------------|--------------------------|
| UN-No: | Not Regulated |
| Proper Shipping Name: | No information available |
| Hazard Class: | No information available |
| Subsidiary Risk: | No information available |
| Packing Group: | No information available |

14. TRANSPORT INFORMATION

Description: No information available

IATA

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

15. REGULATORY INFORMATION

International Inventories

| Components | U.S. TSCA | KOREA KECL | Philippines (PICCS) | Japan ENCS | CHINA | Australia (AICS) | EINECS-No. |
|-------------|-----------|------------------|---------------------|------------------|---------|------------------|-------------------|
| Safranine O | Present | Present KE-09729 | Present | Present (5)-1948 | Present | Present | Present 207-518-8 |

U.S. Regulations

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

| Components | Carcinogen | Developmental Toxicity | Male Reproductive Toxicity | Female Reproductive Toxicity: |
|-------------|------------|------------------------|----------------------------|-------------------------------|
| Safranine O | Not Listed | Not Listed | Not Listed | Not Listed |

CERCLA/SARA

| Components | CERCLA - Hazardous Substances and their Reportable Quantities | Section 302 Extremely Hazardous Substances and TPQs | Section 302 Extremely Hazardous Substances and RQs | Section 313 - Chemical Category | Section 313 - Reporting <i>de minimis</i> |
|-------------|---|---|--|---------------------------------|---|
| Safranine O | None | None | None | None | None |

U.S. TSCA

| Components | TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS) | TSCA 8(d) -Health and Safety Reporting |
|-------------|---|--|
| Safranine O | Not Applicable | Not Applicable |

Canada

WHMIS hazard class:

Non-controlled

Safranine O

Uncontrolled product according to WHMIS classification criteria

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Safranine O

Inventory

| Components | Canada (DSL) | Canada (NDSL) |
|-------------|--------------|---------------|
| Safranine O | Present | Not Listed |

| Components | CEPA Schedule I - Toxic Substances | CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting |
|-------------|------------------------------------|---|
| Safranine O | Not listed | Not listed |

EU Classification

R-phrase(s)

R38 - Irritating to skin.

R41 - Risk of serious damage to eyes.

S -phrase(s)

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37 - Wear suitable gloves.

| Components | Classification | Concentration Limits: | Safety Phrases |
|-------------|----------------|-----------------------|----------------|
| Safranine O | | No information | |

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

Xi - Irritant.



16. OTHER INFORMATION

16. OTHER INFORMATION

Preparation Date: 8/5/15
Revision Date: 8/5/15
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet