

# Safety Data Sheet

## Aceto-Orcein Stain

**CAROLINA**<sup>®</sup>  
www.carolina.com

### Section 1

### Product Description

**Product Name:** Aceto-Orcein Stain  
**Recommended Use:** Science education applications  
**Synonyms:** None known  
**Distributor:** Carolina Biological Supply Company  
2700 York Road, Burlington, NC 27215  
1-800-227-1150  
**Chemical Information:** 800-227-1150 (8am-5pm (ET) M-F)  
**Chemtrec:** 800-424-9300 (Transportation Spill Response 24 hours)

### Section 2

### Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

**DANGER**



Flammable liquid and vapor. Causes severe skin burns and eye damage. Causes serious eye damage. Harmful to aquatic life.

**GHS Classification:**

Skin Corrosion/Irritation Category 1A, Serious Eye Damage/Eye Irritation Category 1, Flammable Liquid Category 3, Hazardous to the aquatic environment - Acute Category 3

### Section 3

### Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Water	7732-18-5	53
Acetic Acid, Glacial	64-19-7	45
Orcein	1400-62-0	2

### Section 4

### First Aid Measures

**Emergency and First Aid Procedures**

**Inhalation:** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
**Eyes:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**Skin Contact:** IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.  
**Ingestion:** IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

### Section 5

### Firefighting Procedures

**Extinguishing Media:** Use dry chemical, CO2 or appropriate foam.  
**Fire Fighting Methods and Protection:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.  
**Fire and/or Explosion Hazards:** Fire or excessive heat may produce hazardous decomposition products.  
**Hazardous Combustion Products:** Carbon dioxide, Carbon monoxide

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## Section 6 Spill or Leak Procedures

### Steps to Take in Case Material Is Released or Spilled:

Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits. Ventilate the contaminated area.

### Methods for Clean-up

Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Shut off ignition sources; including electrical equipment and flames. Do not allow smoking in the area.

## Section 7 Handling and Storage

**Handling:** Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/.../ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Handle and open container with care.

**Storage:** Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up. Store above 17 C (62.6 F)

**Storage Code:** White - Corrosive. Separate acids from bases; separate oxidizer acids from organic acids.

## Section 8 Protection Information

Chemical Name	ACGIH		OSHA PEL	
	(TWA)	(STEL)	(TWA)	(STEL)
Acetic Acid, Glacial	10 ppm TWA	15 ppm STEL	10 ppm TWA; 25 mg/m <sup>3</sup> TWA	N/A
Orcein	N/A	N/A	N/A	N/A

### Control Parameters

#### Engineering Measures:

Local exhaust ventilation, process enclosures, or other engineering controls are necessary when handling or using this product to avoid overexposure.

#### Personal Protective Equipment (PPE):

Lab coat, apron, eye wash, safety shower.

#### Respiratory Protection:

No respiratory protection required under normal conditions of use.

#### Respirator Type(s):

NIOSH approved air purifying respirator with acid gas cartridge and dust/mist filter

#### Eye Protection:

Wear chemical splash goggles when handling this product. Have an eye wash station available.

#### Skin Protection:

Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

#### Gloves:

Nitrile - Extra Thick (8 mm)

## Section 9 Physical Data

**Formula:** See Section 3

**Molecular Weight:** 60.05

**Appearance:** Colorless Liquid

**Odor:** Strong Vinegar

**Odor Threshold:** No data available

**pH:** No data available

**Melting Point:** 17 C

**Boiling Point:** 118 C

**Flash Point:** 39 C

**Flammable Limits in Air:** LEL: 5.4% - UEL: 16.0%

**Vapor Pressure:** 11.4 mmHg at 20 °C

**Evaporation Rate (BuAc=1):** 0.97

**Vapor Density (Air=1):** 2.07

**Specific Gravity:** 1.049

**Solubility in Water:** Soluble

**Log Pow (calculated):** No data available

**Autoignition Temperature:** No data available

**Decomposition Temperature:** No data available

**Viscosity:** No data available

**Percent Volatile by Volume:** 100%

## Section 10 Reactivity Data

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<b>Reactivity:</b>	Not generally reactive under normal conditions.
<b>Chemical Stability:</b>	Stable under normal conditions.
<b>Conditions to Avoid:</b>	Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition. No data available.
<b>Incompatible Materials:</b>	Water-reactive materials, Acetic anhydride, Acetaldehydes, Caustics (bases), Oxidizing materials, Halogens, Carbonates, Strong oxidizing agents
<b>Hazardous Polymerization:</b>	Will not occur

## Section 11 Toxicity Data

<b>Routes of Entry</b>	Inhalation, ingestion, eye or skin contact.
<b>Symptoms (Acute):</b>	Respiratory disorders
<b>Delayed Effects:</b>	No data available

### Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Water	7732-18-5	Oral LD50 Rat 90000 mg/kg		
Acetic Acid, Glacial	64-19-7			INHALATION LC50 MAMMAL 11.4 GM/M3 4H INHALATION LC50 Mouse 5620 PPM 1H
Orcein	1400-62-0			

### Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Acetic Acid	64-19-7	Not listed	Not listed	Not listed
Orcein	1400-62-0	Not listed	Not listed	Not listed

### Chronic Effects:

<b>Mutagenicity:</b>	No evidence of a mutagenic effect.
<b>Teratogenicity:</b>	No evidence of a teratogenic effect (birth defect).
<b>Sensitization:</b>	No evidence of a sensitization effect.
<b>Reproductive:</b>	No evidence of negative reproductive effects.
<b>Target Organ Effects:</b>	
<b>Acute:</b>	Skin, Eyes, Respiratory system
<b>Chronic:</b>	Not listed as a carcinogen by IARC, NTP or OSHA.

## Section 12 Ecological Data

<b>Overview:</b>	Slight ecological hazard. In high concentrations, this product may be dangerous to plants and/or wildlife. Harmful to fish and other water organisms.
<b>Mobility:</b>	No data
<b>Persistence:</b>	Biodegradation
<b>Bioaccumulation:</b>	No data
<b>Degradability:</b>	No data
<b>Other Adverse Effects:</b>	No data

Chemical Name	CAS Number	Eco Toxicity
Water	7732-18-5	No data available
Acetic Acid, Glacial	64-19-7	Aquatic LC50 (96h) Fathead Minnow 79 MG/L Aquatic EC50 (24h) Daphnia 47 MG/L
Orcein	1400-62-0	

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## Section 13

## Disposal Information

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

**Waste Disposal Code(s):** D002

## Section 14

## Transport Information

**Ground - DOT Proper Shipping Name:** UN2790, Acetic Acid Solution, 8, III

**Air - IATA Proper Shipping Name:** UN2790, Acetic Acid Solution, 8, III

## Section 15

## Regulatory Information

**TSCA Status:** All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Acetic Acid, Glacial	64-19-7	No	5000 lb RQ	5000 lb final RQ; 2270 kg final RQ	No	No
Orcein	1400-62-0	No	No	No	No	No

**California Prop 65:** No California Proposition 65 ingredients

## Section 16

## Additional Information

**Revised:** 02/17/2025

**Replaces:** 02/17/2025

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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.

### Glossary

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