

# Material Safety Data Sheet

## Aceto-Orcein Solution

ACC# 45407

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Aceto-Orcein Solution**Catalog Numbers:** S71902, S71903**Synonyms:** None**Company Identification:**

Fisher Scientific

1 Reagent Lane

Fair Lawn, NJ 07410

**For information, call:** 201-796-7100**Emergency Number:** 201-796-7100**For CHEMTREC assistance, call:** 800-424-9300**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7732-18-5	Water	53	231-791-2
64-19-7	Acetic acid	45	200-580-7
1400-62-0	Orcein	2	215-750-6

**Hazard Symbols:** C**Risk Phrases:** 34

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: violet liquid. Causes digestive tract burns. Causes respiratory tract burns. Corrosive. **Danger!** Causes eye and skin burns. May be harmful if absorbed through the skin.

**Target Organs:** None.

#### Potential Health Effects

**Eye:** Causes eye burns. Contact with liquid or vapor causes severe burns and possible

irreversible eye damage.

**Skin:** Causes skin burns. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. May be harmful if absorbed through the skin.

**Ingestion:** May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns. Causes severe pain, nausea, vomiting, diarrhea, and shock.

**Inhalation:** Effects may be delayed. Causes chemical burns to the respiratory tract.

**Chronic:** Prolonged or repeated skin contact may cause dermatitis. Repeated inhalation may cause chronic bronchitis. Repeated exposure may cause erosion of teeth.

## Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Do NOT allow victim to rub or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).

**Skin:** Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes.

**Ingestion:** Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

**Notes to Physician:** Treat symptomatically and supportively.

**Antidote:** None reported.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Reacts with most metals to form highly flammable hydrogen gas which can form explosive mixtures with air.

**Extinguishing Media:** For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

**Flash Point:** Not applicable.

**Autoignition Temperature:** 800 deg F ( 426.67 deg C)

**Explosion Limits, Lower:**5.4

**Upper:** 16

**NFPA Rating:** (estimated) Health: 3; Flammability: 0; Instability: 0

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Discard contaminated shoes.

**Storage:** Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Store in a suitable container in a dry area above the substance's freezing point.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Water	none listed	none listed	none listed
Acetic acid	10 ppm TWA; 15 ppm STEL	10 ppm TWA; 25 mg/m <sup>3</sup> TWA 50 ppm IDLH	10 ppm TWA; 25 mg/m <sup>3</sup> TWA
Orcein	none listed	none listed	none listed

**OSHA Vacated PELs:** Water: No OSHA Vacated PELs are listed for this chemical. Acetic acid: 10 ppm TWA; 25 mg/m<sup>3</sup> TWA Orcein: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** 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:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** violet

**Odor:** Vinegar-like odor.

**pH:** Acidic.

**Vapor Pressure:** 11 mm Hg

**Vapor Density:** 2.07

**Evaporation Rate:**0.97 (n-Butyl Acetate=1)

**Viscosity:** Not available.

**Boiling Point:** 108 deg C

**Freezing/Melting Point:**0 deg C

**Decomposition Temperature:**Not available.

**Solubility:** Soluble in water.

**Specific Gravity/Density:**1.025

**Molecular Formula:**Mixture

**Molecular Weight:**Not available.

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.

**Conditions to Avoid:** Incompatible materials, ignition sources, excess heat.

**Incompatibilities with Other Materials:** Acetaldehyde; 2-aminoethanol; ammonium nitrate; bromine pentafluoride; chlorine trifluoride; chlorosulfonic acid; chromic acid; chromic anhydride+acetic anhydride; diallyl methyl carbinol+ozone; ethylene diamine; ethylamine; hydrogen peroxide; nitric acid; nitric acid+acetone; oleum; perchloric acid; permanganates; phosphorus isocyanate; phosphorus trichloride; potassium hydroxide; potassium-t-butoxide; sodium peroxide; xylene.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS# 7732-18-5:** ZC0110000

**CAS# 64-19-7:** AF1225000

**CAS# 1400-62-0** unlisted.

**LD50/LC50:**

**CAS# 7732-18-5:**

Oral, rat: LD50 = >90 mL/kg;

**CAS# 64-19-7:**

Draize test, rabbit, skin: 50 mg/24H Mild;

Inhalation, mouse: LC50 = 5620 ppm/1H;

Oral, rat: LD50 = 3310 mg/kg;

Skin, rabbit: LD50 = 1060 uL/kg;

**CAS# 1400-62-0:**

**Carcinogenicity:**

**CAS# 7732-18-5:** Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. **CAS# 64-19-7:** Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. **CAS# 1400-62-0:** Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

**Epidemiology:** No information available.

**Teratogenicity:** Effects on newborn: behavioral, orl. rat TDLo=700 mg/kg.

**Reproductive Effects:** Fertility: male index, itt-rat TDLo=400 mg/kg.

**Neurotoxicity:** No information available.

**Mutagenicity:** No information available.

**Other Studies:** No data available.

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. No information available.

**Environmental:** No information found.

**Physical:** No information found.

**Other:** No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
<b>Shipping Name:</b>	CORROSIVE LIQUID, ACIDIC, ORGANIC, N. O.S.				ACETIC ACID SOLUTION
<b>Hazard Class:</b>	8				8
<b>UN Number:</b>	UN3265				UN2790
<b>Packing Group:</b>	II				II

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 7732-18-5 is listed on the TSCA inventory.

CAS# 64-19-7 is listed on the TSCA inventory.

CAS# 1400-62-0 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### SARA

#### CERCLA Hazardous Substances and corresponding RQs

CAS# 64-19-7: 5000 lb final RQ; 2270 kg final RQ

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 64-19-7: acute, chronic, flammable.

#### Section 313

No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

### **Clean Water Act:**

CAS# 64-19-7 is listed as a Hazardous Substance under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

### **OSHA:**

None of the chemicals in this product are considered highly hazardous by OSHA.

### **STATE**

CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 64-19-7 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

CAS# 1400-62-0 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California No Significant Risk Level: None of the chemicals in this product are listed.

## **European/International Regulations**

### **European Labeling in Accordance with EC Directives**

#### **Hazard Symbols:**

C

#### **Risk Phrases:**

R 34 Causes burns.

#### **Safety Phrases:**

### **WGK (Water Danger/Protection)**

CAS# 7732-18-5: No information available.

CAS# 64-19-7: 1

CAS# 1400-62-0: No information available.

### **Canada - DSL/NDSL**

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 64-19-7 is listed on Canada's DSL List.

CAS# 1400-62-0 is listed on Canada's DSL List.

### **Canada - WHMIS**

This product has a WHMIS classification of E.

### **Canadian Ingredient Disclosure List**

CAS# 64-19-7 is listed on the Canadian Ingredient Disclosure List.

### **Exposure Limits**

CAS# 64-19-7: OEL-AUSTRALIA: TWA 10 ppm (25 mg/m<sup>3</sup>); STEL 15 ppm (37 mg/m<sup>3</sup>) OEL-AUSTRIA: TWA 10 ppm (25 mg/m<sup>3</sup>) OEL-BELGIUM: TWA 10 ppm (25 mg/m<sup>3</sup>); STEL 15 ppm (37 mg/m<sup>3</sup>) OEL-CZECHOSLOVAKIA: TWA 25 mg/m<sup>3</sup>; STEL 50 mg/m<sup>3</sup> OEL-DENMARK: TWA 10 ppm (25 mg/m<sup>3</sup>) OEL-FINLAND: TWA 10 ppm (25 mg/m<sup>3</sup>); STEL 15 ppm (37 mg/m<sup>3</sup>); Skin OEL-FRANCE: STEL 10 ppm (25 mg/m<sup>3</sup>) OEL-GERMANY: TWA 10 ppm (25 mg/m<sup>3</sup>) OEL-HUNGARY: TWA 10 mg/m<sup>3</sup>; STEL 20 mg/m<sup>3</sup> OEL-INDIA: TWA 10 ppm (25 mg/m<sup>3</sup>); STEL 15 ppm (37 mg/m<sup>3</sup>) OEL-JAPAN: TWA 10 ppm (25 mg/m<sup>3</sup>) OEL-THE NETHERLANDS: TWA 10 ppm (25 mg/m<sup>3</sup>) OEL-THE PHILIPPINES: TWA 10 ppm (25 mg/m<sup>3</sup>) OEL-POLAND: TWA 5 mg/m<sup>3</sup> OEL-RUSSIA: TWA 10 ppm; STEL 5 mg/m<sup>3</sup>; Skin OEL-SWEDEN: TWA 10 ppm (25 mg/m<sup>3</sup>); STEL 15 ppm (35 mg/m<sup>3</sup>) OEL-SWITZERLAND: TWA 10 ppm (25 mg/m<sup>3</sup>); STEL 20 ppm (50 mg/m<sup>3</sup>) OEL-THAILAND: TWA 10 ppm (25 mg/m<sup>3</sup>) OEL-TURKEY: TWA 10 ppm

(25 mg/m<sup>3</sup>) OEL-UNITED KINGDOM: TWA 10 ppm (25 mg/m<sup>3</sup>); STEL 15 ppm (35 mg/m<sup>3</sup>) OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

## Section 16 - Additional Information

**MSDS Creation Date:** 11/30/1998

**Revision #3 Date:** 3/18/2003

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