

# Safety Data Sheet

## SCHIFF'S REAGENT

### Section 1 - Chemical Product and Company Identification

**SDS Name:** Schiff's Reagent

**Catalog Numbers:** SO-429, E-311-1, E-312-1A, E-330-2, F-355-1, G-461-2, K-672-4, L-774-1, N-853-1, O-920-4, O-921-4

**Company Identification:** Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.  
10 ELECTRONICS AVENUE  
DANVERS, MA 01923

**For information, call:** 978-739-4883

**Emergency Number:** 800-424-9300

**For CHEMTREC assistance, call:** 800-424-9300

### Section 2 - Hazards Identification

#### GHS Classifications

H290-Corrosive to metals: 1

H314-Skin corrosion/irritation: 1B

H318-Serious eye damage/eye irritation: 1

H334-Sensitisation, respiratory: 1

H335-Specific target organ toxicity, single exposure; Respiratory tract irritation: 3

H351-Carcinogenicity: 2

#### Pictogram or Hazard Symbols and Hazard Statement(s):



Signal Word: Danger

#### Hazard Statements:

H290-May be corrosive to metals

H314-Causes severe skin burns and eye damage

H318-Causes serious eye damage

H334-May cause allergy or asthma symptoms or breathing difficulties if inhaled

H335-May cause respiratory irritation

H351-Suspected of causing cancer

### **Precautionary Statements:**

P201-Obtain special instructions before use.  
P202-Do not handle until all safety precautions have been read and understood.  
P234-Keep only in original container.  
P260-Do not breathe dusts or mists.  
P261-Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264-Wash thoroughly after handling.  
P271-Use only outdoors or in a well-ventilated area.  
P280-Wear protective gloves/protective clothing/eye protection/face protection.  
P281-Use personal protective equipment as required.  
P285-In case of inadequate ventilation wear respiratory protection.  
P301+P330+P331-If swallowed: Rinse mouth. Do NOT induce vomiting.  
P303+P361+P353-If on skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340-If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P304+P341-If inhaled: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305+P351+P338-If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308+P313-If exposed or concerned: Get medical advice/attention.  
P310-Immediately call a Poison Center or doctor/physician.  
P312-Call a Poison Center or doctor/physician if you feel unwell.  
P342+P311-If experiencing respiratory symptoms: Call a Poison Center or doctor/physician.  
P363-Wash contaminated clothing before reuse.  
P390-Absorb spillage to prevent material damage.  
P403+P233-Store in a well-ventilated place. Keep container tightly closed.  
P405-Store locked up.  
P406-Store in corrosive resistant/container with a resistant inner liner.  
P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

### Section 3 - Composition, Information on Ingredients

<b>CAS#</b>	<b>Chemical Name</b>	<b>Percent</b>
632-99-5	Basic Fuchsin	0.45 w/v
7631-90-5	Sodium bisulfite	0.45 w/v
7647-01-0	Hydrochloric Acid	0.88 v/v
7732-18-5	Water	balance

### Section 4 - First Aid Measures

**Eye Exposure:** In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing separating the eyelids with fingers. Seek medical attention.

**Dermal Exposure:** In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Seek medical attention.

**Oral Exposure:** If swallowed, seek immediate medical advice. Do NOT induce vomiting. Rinse mouth with water.

**Inhalation Exposure:** If inhaled, remove to fresh air. If breathing becomes difficult, seek immediate medical attention.

#### 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 gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam.

**Hazardous Combustion Products:** Carbon oxides, nitrogen oxides, sulfur oxides, sodium oxides, hydrogen chloride gas, irritating and toxic fumes and gases.

**Flash Point:** Not available

**Autoignition Temperature:** Not available

**Explosion Limits, Lower:** Not available

**Upper:** Not available

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 0

#### Section 6 - Accidental Release Measures

**Procedure(s) of Personal Precaution(s):**

Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation.

**Methods for Cleaning up:** Absorb with sand, earth, or vermiculite. Carefully sweep up and containerize for proper disposal. Do not release to the environment. Do not release to drains.

#### Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Ensure adequate ventilation. Wash thoroughly after handling. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Keep in a tightly closed and corrosion-resistant container. Air and moisture sensitive. Light sensitive. Keep away from incompatible materials. **Store in the refrigerator (4 °C).**

Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use explosion-proof ventilation equipment. 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.

**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:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

**Exposure Limits:**

Chemical Name	ACGIH - TLV	NIOSH - IDLH	OSHA - Final PELs
Basic Fuchsin CAS#632-99-5	Not listed	Not listed	Not listed
Sodium Bisulfite CAS#7631-90-5	5 mg/m3 TWA	5 mg/m3 TWA	5 mg/m3 TWA (vacated)
Hydrochloric Acid CAS#7647-01-0	2 ppm Ceiling	5 ppm Ceiling 7 mg/m3 Ceiling 50 ppm IDLH	5 ppm Ceiling 7 mg/m3 Ceiling

**OSHA Vacated PELs:** Sodium Bisulfite: 5 mg/m3 TWA  
Hydrochloric acid: 5ppm Ceiling; 7 mg/m3 Ceiling

Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** Clear, colorless

**Odor:** Pungent

**Vapor Pressure:** Not available

**Odor Threshold:** Not available

**Vapor Density:** Not available

**pH:** 1.3-1.5

**Relative Density:** Not available

**Melting point/freezing point:** Not available  
**Solubility:** Soluble in water  
**Boiling Point:** Not available  
**Flash Point:** Not available  
**Evaporation Rate:** Not available  
**Flammability (solid, gas):** Not available  
**Partition coefficient: n-octanol/water:** Not available  
**Auto-ignition Temperature:** Not available  
**Decomposition Temperature:** Not available  
**Viscosity:** Not available  
**Specific Gravity/Density:** Not available

#### Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal storage and handling conditions. **Keep refrigerated (4 °C).**

**Conditions to Avoid:** Incompatible materials, ignition sources, excess heat, and freezing. Light sensitive.

**Incompatibilities with Other Materials:** Strong oxidizing agents, strong reducing agents, acids, bases, alkali metals, metals, sodium hypochlorite, amines, fluorine, cyanides, metal acetylides, permanganates, and hexalithium disilicide metals.

**Hazardous Decomposition Products:** Carbon oxides, nitrogen oxides, sulfur oxides, sodium oxides, hydrogen chloride gas, irritating and toxic fumes and gases.

#### Section 11 - Toxicological Information

**CAS#632-99-5 Basic Fuchsin: RTECS#: CX9850000**

LD50 Oral: Not available

LD50 Oral: 5000 mg/kg (CAS#569-61-9 pararosaniline hydrochloride, Basic Red 9)

LD50 Dermal: Not available

LC50 Inhalation: Not available

**Carcinogenicity:** Basic Fuchsin CAS#632-99-5 is not listed by NTP, ACGIH, OSHA, or California Prop 65. Basic Fuchsin is listed by IARC (Group 2B, Possibly Carcinogenic to Humans).

**CAS#7631-90-5 Sodium Bisulfite:**

LD50 Oral: 1540 mg/kg (rat)

LD50 Dermal: >2000 mg/kg (rat)

LC50 Inhalation: >5.5 mg/L 4h (rat)

**Carcinogenicity:** Sodium Bisulfite CAS#7631-90-5 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop 65.

**CAS#7647-01-0 Hydrochloric Acid: RTECS#: MW4025000**

LD50 Oral: 238-277 mg/kg (rat)

LD50 Dermal: >5010 mg/kg (rabbit)

LC50 Inhalation: 1.68 mg/L 1h (rat)

**Carcinogenicity:** Hydrochloric Acid CAS#7647-01-0 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop 65.

**Epidemiology:** Not available.

**Teratogenicity:** Not available.

**Reproductive Effects:** Not available.

**Developmental Effects:** Not available.

**Neurotoxicity:** Not available.

**Mutagenicity:** Not available.

**Specific Target Organ Toxicity, Single Exposure:** Respiratory system.

**Specific Target Organ Toxicity, Repeated Exposure:** Not available.

**Note:** May cause respiratory irritation and irritation of the mucous membranes.

**The toxicological properties of this material have not been thoroughly investigated.**

## Section 12 - Ecological Information

**Ecotoxicity:** Do not release to the environment. Do not release to drains. Harmful to aquatic life.

### **CAS#7631-90-5 Sodium Bisulfite:**

LC50, freshwater fish: 215 - 464 mg/L 96h static

EC50, water flea: 119 mg/L 48h (daphnia magna)

EC50, algae: 43.8 mg/L 72h static (desmodesmus subspicatus)(green algae)

EC50, bacteria: >1000 mg/L 3h static (activated sludge)

### **CAS#7647-01-0 Hydrochloric Acid:**

LC50, freshwater fish: 282 mg/L 96h (gambusia affinis)

EC50, water flea: 56 mg/L 72h (daphnia magna)

**Persistence and degradability:** Not available.

**Bio-accumulative potential:** Not available.

**Mobility:** This material will likely be mobile in the environment due to its water solubility.

## Section 13 - Disposal Considerations

**DISPOSAL:** Dispose of in accordance with all federal, state, and local regulations.

## Section 14 - Transport Information

**DOT**

Proper shipping name: Hydrochloric Acid Solution  
UN1789  
PG III  
Hazard class 8

Section 15 - Regulatory Information

**Canada Regulatory Information**

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

Section 16 - Additional Information

**SDS Creation Date:** 5/11/12

**Revision #1.** 4/14/14 YM

**Revision #2.** 3/23/17

**Revision #3.** 6-18-19

**Revision #4.** 9-9-19

**Revision #5.** 8-25-22

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Rowley Biochemical, Inc. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Rowley Biochemical, Inc. has been advised of the possibility of such damages.*