

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

CAS#	Chemical Name	Percent
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

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