Schiff's Reagent

SECTION 1: Identification

Product identifier

Product name: Schiff's Reagent
Product code: S25794

Recommended use of the product and restriction on use

Relevant identified uses: Laboratory chemicals
Uses advised against: Not determined or not applicable.
Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:	**Supplier:**
United States	**United States**
AquaPhoenix Scientific	Fisher Science Education
860 Gitts Run Road	6771 Silver Crest Road
Hanover	Nazareth
PA 17331	PA 18064
(717) 632-1291	800 955-1177

Emergency telephone number:

United States

Emergency Telephone No.: 800-255-3924

SECTION 2: Hazard identification

GHS classification:

Carcinogenicity, category 2

Label elements

Hazard pictograms:

Signal word: Warning

Hazard statements:

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.
P281 Use personal protective equipment as required.
P308+P313 If exposed or concerned: Get medical advice/attention.
P405 Store locked up.
P501 Dispose of contents and container as instructed in Section 13.

Hazards not otherwise classified: None

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SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 7732-18-5	Water	>95.7
CAS number: 7647-01-0	Hydrochloric acid	<1
CAS number: 7681-57-4	Sodium Metabisulfite	<1
CAS number: 632-99-5	Basic Fuchsin	<1
CAS number: 64365-11-3	Charcoal	<1
CAS number: 7440-44-0	Activated Charcoal	0.3

Additional Information: None

SECTION 4: First-aid measures

Description of first-aid measures

General notes:
Not determined or not available.

After inhalation:
Loosen clothing as necessary and position individual in a comfortable position
Maintain an unobstructed airway
Get medical advice/attention if you feel unwell

After skin contact:
Rinse affected area with soap and water
If symptoms develop or persist, seek medical attention

After eye contact:
Rinse/flush exposed eye(s) gently using water for 15-20 minutes
Remove contact lenses, if present and easy to do
Continue rinsing
Get medical advice/attention

After ingestion:
Rinse mouth and then drink plenty of water
Do not induce vomiting
Get medical advice/attention if you feel unwell

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:
Not determined or not available.

Delayed symptoms and effects:
Not determined or not available.

Immediate medical attention and special treatment

Specific treatment:
Not determined or not available.
Notes for the doctor:
Not determined or not available.

SECTION 5: Fire-fighting measures

Extinguishing media

Suitable extinguishing media:
Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition
Unsuitable extinguishing media:
Not determined or not applicable.

Specific hazards during fire-fighting:
Thermal decomposition can lead to release of irritating gases and vapors

Special protective equipment for firefighters:
Wear protective eye wear, gloves and clothing
Refer to Section 8
Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

Special precautions:
Heating causes a rise in pressure, risk of bursting and combustion
Shut off sources of ignition
Carbon monoxide and carbon dioxide may form upon combustion

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:
Ensure adequate ventilation
Ensure air handling systems are operational
Wear protective eye wear, gloves and clothing

Environmental precautions:
Should not be released into the environment
Prevent from reaching drains, sewer or waterway

Methods and material for containment and cleaning up:
Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders)
Dispose of contents / container in accordance with local regulations

Reference to other sections:
Not determined or not applicable.

SECTION 7: Handling and storage

Precautions for safe handling:
Do not eat, drink, smoke or use personal products when handling chemical substances.
Avoid breathing mist or vapor.
Use only with adequate ventilation.

Conditions for safe storage, including any incompatibilities:
Store in a cool, well-ventilated area.

Store away from foodstuffs.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
ACGIH	Sodium Metabisulfite	7681-57-4	ACGIH TLV TWA 5.0 mg/m³
	Hydrochloric acid	7647-01-0	ACGIH TLV C 2.0 ppm
NIOSH	Sodium Metabisulfite	7681-57-4	NIOSH REL TWA 5.0 mg/m³
	Hydrochloric acid	7647-01-0	NIOSH REL C 5.0 ppm
	Hydrochloric acid	7647-01-0	NIOSH REL C 7.0 mg/m³
United States (OSHA)	Hydrochloric acid	7647-01-0	OSHA PEL C 5.0 ppm
	Hydrochloric acid	7647-01-0	OSHA PEL C 7.0 mg/m³

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Not determined or not applicable.

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Personal protection equipment

Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.

Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

General hygienic measures:

Wash hands before breaks and at the end of work.

Avoid contact with skin, eyes and clothing.

Perform routine housekeeping.

Wash contaminated clothing before reusing.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance (physical state, color):	Colorless liquid
Odor:	Strong, disagreeable sulfur dioxide odor
Odor threshold:	Not available
pH-value:	Not available

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Melting/Freezing point:	Not available
Boiling point/range:	Not available
Flash point:	Not available
Evaporation rate:	Not available
Flammability (solid, gaseous):	Not available
Explosion limit upper:	Not available
Explosion limit lower:	Not available
Vapor pressure:	Not available
Vapor density:	Not available
Density:	Not available
Relative density:	Not available
Solubilities:	Not determined or not available.
Partition coefficient (n-octanol/water):	Not available
Auto/Self-ignition temperature:	Not available
Decomposition temperature:	Not available
Dynamic viscosity:	Not available
Kinematic viscosity:	Not available
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:
Does not react under normal conditions of use and storage.

Chemical stability:
Stable under normal conditions of use and storage.

Possibility of hazardous reactions:
None under normal conditions of use and storage.

Conditions to avoid:
None known.

Incompatible materials:
None known.

Hazardous decomposition products:
None known.

SECTION 11: Toxicological information

Acute toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Route	Result
Sodium Metabisulfite	oral	LD50 Oral - Rat - 1131 mg/kg
Hydrochloric acid	inhalation	LC50 - Mouse - 1,108 ppm / 1h

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Skin corrosion/irritation

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Result
Hydrochloric acid	Causes severe skin burns and eye damage.

Serious eye damage/irritation

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Result
Sodium Metabisulfite	Causes serious eye damage

Respiratory or skin sensitization

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Carcinogenicity

Assessment: Suspected of causing cancer

Product data: No data available.

Substance data:

Name	Species	Result
Basic Fuchsin	(4-(4-aminophenyl)(4-iminocyclohexa-2,5-dienylidene)methyl)-2-methylaniline hydrochloride	Suspected of causing cancer.

International Agency for Research on Cancer (IARC):

Name	Classification
Sodium Metabisulfite	Group 3 - Not classifiable as to its carcinogenicity to humans
Basic Fuchsin	Group 2B - Possibly carcinogenic to humans
Hydrochloric acid	Group 3 - Not classifiable as to its carcinogenicity to humans

National Toxicology Program (NTP): None of the ingredients are listed.

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Reproductive toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Specific target organ toxicity (single exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

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Specific target organ toxicity (repeated exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Information on likely routes of exposure: No data available.

Symptoms related to the physical, chemical and toxicological characteristics: No data available.

Other information: No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Chronic (long-term) toxicity

Product data: No data available.

Substance data: No data available.

Persistence and degradability

Product data: No data available.

Substance data: No data available.

Bioaccumulative potential

Product data: No data available.

Substance data: No data available.

Mobility in soil

Product data: No data available.

Substance data: No data available.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11)

SECTION 14: Transport information

Canadian Transportation of Dangerous Goods (TDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None

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Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
Bulk Name	None
Ship type	None
Pollution category	None

SECTION 15: Regulatory information

Canada regulations

Domestic substances list (DSL):

7681-57-4	Sodium Metabisulfite	Listed
632-99-5	Basic Fuchsin	Listed
7647-01-0	Hydrochloric acid	Listed
7732-18-5	Water	Listed
64365-11-3	Charcoal	Listed
7440-44-0	Activated Charcoal	Listed

Non-domestic substances list (NDSL): Not determined.

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations

and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

NFPA: 2-0-0

HMIS: 2-0-0

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End of Safety Data Sheet