## Schiff's Reagent

## SECTION 1: Identification

**Product identifier**

**Product name:** Schiff's Reagent
**Product code:** SH3300SS

**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:**
**United States**
AquaPhoenix Scientific, Inc.
860 Gitts Run Road
Hanover, PA 17331
1-717-632-1291

**Emergency telephone number:**

**Canada**
**ChemTel: (24-hour)**
+1(800)255-3924
+1(813)248-0585 (International)

## SECTION 2: Hazard(s) 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

## SECTION 3: Composition/information on ingredients

## Schiff's Reagent

| 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 applicable.

**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 swallowing:**

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 applicable.

**Delayed symptoms and effects:**

Not determined or not applicable.

### Immediate medical attention and special treatment

**Specific treatment:**

Not determined or not applicable.

**Notes for the doctor:**

Not determined or not applicable.

## SECTION 5: Firefighting 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 |

## Schiff's Reagent

| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|---|---|---|---|
| | 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** | Colorless liquid |
| **Odor** | Strong, disagreeable sulfur dioxide odor |
| **Odor threshold** | Not available |
| **pH** | Not available |
| **Melting point/freezing point** | Not available |
| **Initial boiling point/range** | Not available |
| **Flash point (closed cup)** | Not available |
| **Evaporation rate** | Not available |
| **Flammability (solid, gas)** | Not available |
| **Upper flammability/explosive limit** | Not available |
| **Lower flammability/explosive limit** | Not available |
| **Vapor pressure** | Not available |
| **Vapor density** | Not available |

**Schiff's Reagent**

| | |
|---|---|
| **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 |

**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:**

## Schiff's Reagent

| 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.

**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

## Schiff's Reagent

**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

**United States Transportation of dangerous goods (49 CFR DOT)**

| | |
|---|---|
| **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 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 |

**Schiff's Reagent**

| | |
|---|---|
| **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

**United States regulations**

**Inventory listing (TSCA):**

| | | |
|---|---|---|
| 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 | Not Listed |
| 7440-44-0 | Activated Charcoal | Listed |

**Significant New Use Rule (TSCA Section 5):** Not determined.

**Export notification under TSCA Section 12(b):** Not determined.

**SARA Section 311/312 hazards:**

| Acute | Chronic | Fire | Pressure | Reactive |
|---|---|---|---|---|
| No | No | No | No | No |

**SARA Section 302 extremely hazardous substances:**

| | | |
|---|---|---|
| 7647-01-0 | Hydrochloric acid | Listed |

**SARA Section 313 toxic chemicals:**

| | | |
|---|---|---|
| 7647-01-0 | Hydrochloric acid | Listed |

**CERCLA:**

| | | | |
|---|---|---|---|
| 7647-01-0 | Hydrochloric acid | Listed | 5000 |

**RCRA:** Not determined.

**Section 112(r) of the Clean Air Act (CAA):** Not determined.

**Massachusetts Right to Know:**

| | | |
|---|---|---|
| 632-99-5 | (4-(4-aminophenyl) (4-iminocyclohexa-2,5-dienylidene) methyl)-2-methylaniline hydrochloride | Not Listed |
| 64365-11-3 | Charcoal | Not Listed |
| 7440-44-0 | Activated Charcoal | Not Listed |
| 7647-01-0 | Hydrochloric acid | Listed |
| 7681-57-4 | Sodium Metabisulfite | Listed |
| 7732-18-5 | Water | Not Listed |

**New Jersey Right to Know:**

**Schiff's Reagent**

| | | |
|---|---|---|
| 632-99-5 | (4-(4-aminophenyl) (4-iminocyclohexa-2,5-dienylidene) methyl)-2-methylaniline hydrochloride | Not Listed |
| 64365-11-3 | Charcoal | Not Listed |
| 7440-44-0 | Activated Charcoal | Not Listed |
| 7647-01-0 | Hydrochloric acid | Listed |
| 7681-57-4 | Sodium Metabisulfite | Not Listed |
| 7732-18-5 | Water | Not Listed |

**New York Right to Know:**

| | | |
|---|---|---|
| 632-99-5 | (4-(4-aminophenyl) (4-iminocyclohexa-2,5-dienylidene) methyl)-2-methylaniline hydrochloride | Not Listed |
| 64365-11-3 | Charcoal | Not Listed |
| 7440-44-0 | Activated Charcoal | Not Listed |
| 7647-01-0 | Hydrochloric acid | Listed |
| 7681-57-4 | Sodium Metabisulfite | Listed |
| 7732-18-5 | Water | Not Listed |

**Pennsylvania Right to Know:**

| | | |
|---|---|---|
| 632-99-5 | (4-(4-aminophenyl) (4-iminocyclohexa-2,5-dienylidene) methyl)-2-methylaniline hydrochloride | Not Listed |
| 64365-11-3 | Charcoal | Not Listed |
| 7440-44-0 | Activated Charcoal | Not Listed |
| 7647-01-0 | Hydrochloric acid | Listed |
| 7681-57-4 | Sodium Metabisulfite | Listed |
| 7732-18-5 | Water | Not Listed |

**California Proposition 65:** 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

**Schiff's Reagent**

**HMIS:** 2-0-0
**Initial preparation date:** 04.04.2017

**End of Safety Data Sheet**