



# Safety Data Sheet

## SECTION 1: Identification

### 1.1. Product Identifier

**Trade Name or Designation:** Starch Indicator  
for Sulfite

**Product Number:** S-0010

**Other Identifying Product Numbers:** CS001000-1A, S-0010-4L

### 1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

### 1.3. Details of the Supplier of the Safety Data Sheet

**Company:** Reagents Inc.

**Address:** 4746 Sweden Road  
Charlotte, NC 28224 USA

**Telephone:** 800-732-8484

### 1.4. Emergency Telephone Number (24 hr)

CHEMTREC (USA) 800-424-9300  
CHEMTREC (International) 1+ 703-527-3887

## SECTION 2: Hazard(s) Identification

### 2.1. Classification of the Substance or Mixture (in accordance with OSHA HCS 29 CFR 1910.1200)

*For the full text of the Hazard and Precautionary Statements listed below, see Section 16.*

| Hazard Class                                                         | Category   | Hazard Statement | Precautionary Statements                      |
|----------------------------------------------------------------------|------------|------------------|-----------------------------------------------|
| Skin Corrosion / Irritation                                          | Category 2 | H315             | P264, P280, P302+P352, P321, P332+P313, P362  |
| Eye Damage / Irritation                                              | Category 1 | H318             | P280, P305+P351+P338, P310                    |
| Respiratory Sensitizer                                               | Category 1 | H334             | P261, P285, P304+P341, P342+P311, P501        |
| Specific Target Organs/Systemic Toxicity Following Single Exposure   | Category 1 | H370             | P260, P264, P270, P307+P311, P321, P405, P501 |
| Specific Target Organs/Systemic Toxicity Following Repeated Exposure | Category 1 | H372             | P260, P264, P270, P314, P501                  |
| Hazardous to the Aquatic Environment (Acute)                         | Category 3 | H402             | P273, P501                                    |

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### 2.2. GHS Label Elements

Pictograms:



Signal Word: **Danger**

Hazard Statements:

| Hazard Number | Hazard Statement                                                           |
|---------------|----------------------------------------------------------------------------|
| H315          | Causes skin irritation.                                                    |
| H318          | Causes serious eye damage.                                                 |
| H334          | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H370          | Causes damage to organs.                                                   |
| H372          | Causes damage to organs through prolonged or repeated exposure.            |
| H402          | Harmful to aquatic life.                                                   |

Precautionary Statements:

| Precautionary Number | Precautionary Statement                                                                                                          |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------|
| P260                 | Do not breathe dust, fumes or mist.                                                                                              |
| P261                 | Avoid breathing dust, fumes or mist.                                                                                             |
| P264                 | Wash arms, hands and face thoroughly after handling.                                                                             |
| P270                 | Do not eat, drink or smoke when using this product.                                                                              |
| P273                 | Avoid release to the environment.                                                                                                |
| P280                 | Wear protective gloves and eye protection.                                                                                       |
| P285                 | In case of inadequate ventilation wear respiratory protection.                                                                   |
| P302+P352            | IF ON SKIN: Wash with plenty of soap and water.                                                                                  |
| P304+P341            | IF INHALED: If breathing is difficult, remove person to fresh air and keep 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. |
| P307+P311            | IF exposed: Call a POISON CENTER or physician.                                                                                   |
| P310                 | Immediately call a POISON CENTER or physician.                                                                                   |
| P314                 | Get medical attention if you feel unwell.                                                                                        |
| P321                 | Specific treatment (Wash areas of contact with water immediately).                                                               |
| P332+P313            | If skin irritation occurs: Get medical attention.                                                                                |
| P342+P311            | If experiencing respiratory symptoms: Call a POISON CENTER or physician.                                                         |
| P362                 | Take off contaminated clothing and wash it before reuse.                                                                         |
| P405                 | Store locked up.                                                                                                                 |
| P501                 | Dispose of contents in accordance with local, state, federal and international regulations.                                      |

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### 2.3. WHMIS Classification

WHMIS classification is not included based on the recommended option (Option 4) found in the Canada Gazette Part II, Vol. 149, No.3, page 458

### 2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

## SECTION 3: Composition / Information on Ingredients

### 3.1. Components of Substance or Mixture

| Chemical Name       | Formula                                                       | Molecular Weight    | CAS Number | Weight% |
|---------------------|---------------------------------------------------------------|---------------------|------------|---------|
| Water               | H <sub>2</sub> O                                              | 18.01 g/mol         | 7732-18-5  | 95.74%  |
| Potassium Hydroxide | KOH                                                           | 56.10 g/mol         | 1310-58-3  | 1.83%   |
| Hydrochloric Acid   | HCl                                                           | 36.46 g/mol         | 7647-01-0  | 1.20%   |
| Acetic Acid         | CH <sub>3</sub> COOH                                          | 60.05 g/mol         | 64-19-7    | 0.63%   |
| Starch, soluble     | (C <sub>6</sub> H <sub>10</sub> O <sub>5</sub> ) <sub>n</sub> | Data not available. | 9005-84-9  | 0.60%   |

## SECTION 4: First-Aid Measures

### 4.1. General First Aid Information

**Eye Contact:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May cause slight irritation.

**Inhalation:** IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

**Skin Contact:** IF ON SKIN: Wash with plenty of soap and water. May cause slight irritation.

**Ingestion:** Dilute with water or milk. Call a physician if necessary.

### 4.2. Most Important Symptoms and Effects, Acute and Delayed

Non-flammable, non-toxic, non-corrosive. Does not present any significant health hazards. Wash areas of contact with water. EYE CONTACT: May cause slight irritation. SKIN CONTACT: May cause slight irritation.

### 4.3. Medical Attention or Special Treatment Needed

Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately).

## SECTION 5: Fire-Fighting Measures

### 5.1. Extinguishing Media

Use any means suitable for extinguishing surrounding fire.

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### 5.2. Specific Hazards Arising from the Substance or Mixture

Not considered to be a fire or explosion hazard.

### 5.3. Special Protective Equipment for Firefighters

Use protective clothing and breathing equipment appropriate for the surrounding fire.

## SECTION 6: Accidental Release Measures

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection.

### 6.2. Cleanup and Containment Methods and Materials

Absorb with suitable material and dispose of in accordance with local regulations.

## SECTION 7: Handling and Storage

### 7.1. Precautions for Safe Handling and Storage Conditions

Store locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

## SECTION 8: Exposure Controls / Personal Protection

### 8.1. Control Parameters

| Chemical Name                   | Limit Type  | Country | Exposure Limit                               | Information Source                                                     |
|---------------------------------|-------------|---------|----------------------------------------------|------------------------------------------------------------------------|
| Acetic Acid (64-19-7)           | TWA         | USA     | 10 ppm TWA<br>25 mg/m <sup>3</sup> TWA       | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)               |
| Acetic Acid (64-19-7)           | TLV-STEL    | USA     | 15 ppm STEL                                  | ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL) |
| Acetic Acid (64-19-7)           | TLV-TWA     | USA     | 10 ppm TWA                                   | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)      |
| Hydrochloric Acid (7647-01-0)   | TLV-Ceiling | USA     | 2 ppm Ceiling                                | ACGIH - Threshold Limit Values - Ceilings (TLV-C)                      |
| Hydrochloric Acid (7647-01-0)   | PEL-Ceiling | USA     | 5 ppm Ceiling<br>7 mg/m <sup>3</sup> Ceiling | U.S. - OSHA - Final PELs - Ceiling Limits                              |
| Potassium Hydroxide (1310-58-3) | TLV-Ceiling | USA     | 2 mg/m <sup>3</sup> Ceiling                  | ACGIH - Threshold Limit Values - Ceilings (TLV-C)                      |

### 8.2. Exposure Controls

**Engineering Controls:** No specific controls are needed. Normal room ventilation is adequate.

**Respiratory Protection:** In case of inadequate ventilation wear respiratory protection. Normal room ventilation is adequate.

**Skin Protection:** Wear protective gloves and eye protection. Chemical resistant gloves.

**Eye Protection:** Wear protective gloves and eye protection. Safety glasses or goggles.

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### 8.3. Personal Protective Equipment

Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection. Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.

## SECTION 9: Physical and Chemical Properties

### 9.1. Basic Physical and Chemical Properties

**Appearance:** White translucent liquid

**Physical State:** Liquid

**Odor:** Data not available.

**Odor Threshold:** Data not available.

**pH:** Data not available.

**Melting/Freezing Point:** Approximately 0°C

**Initial Boiling Point /Range:** Approximately 100°C - Approximately 100°C

**Flash Point:** Data not available.

**Evaporation Rate:** Data not available.

**Flammability:** Data not available.

**Flammability/Explosive Limits:** Data not available.

**Vapor Pressure:** Data not available.

**Vapor Density:** Data not available.

**Relative Density:** Data not available.

**Solubility:** Miscible

**Partition Coefficient (n-Octanol/Water):** Data not available.

**Auto-Ignition Temperature:** Data not available.

**Decomposition Temperature:** Data not available.

**Viscosity:** Data not available.

**Explosive Properties:** Data not available.

**Oxidizing Properties:** Data not available.

## SECTION 10: Stability and Reactivity

### 10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

### 10.2. Possibility of Hazardous Reactions

Data not available.



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### 10.3. Conditions to Avoid and Incompatible Materials

Strong oxidizing agents.

### 10.4. Hazardous Decomposition Products

Will not occur.

## SECTION 11: Toxicological Information

### 11.1. Information on Toxicological Effects

#### Acute Toxicity - Oral Exposure:

Not applicable.

#### Acute Toxicity - Dermal Exposure:

Not applicable.

#### Acute Toxicity - Inhalation Exposure:

Not applicable.

#### Acute Toxicity - Other Information:

LD50, Oral, Rat: >3200 mg/kg (Potassium Acid Phthalate), details of toxic effects not reported other than lethal dose value.

#### Skin Corrosion and Irritation:

Causes skin irritation. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. Specific treatment (Wash areas of contact with water immediately). If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

#### Serious Eye Damage and Irritation:

Causes serious eye damage. Wear protective gloves and eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

#### Respiratory Sensitization:

May cause allergy or asthma symptoms or breathing difficulties if inhaled. Avoid breathing dust, fumes or mist. In case of inadequate ventilation wear respiratory protection. IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or physician. Dispose of contents in accordance with local, state, federal and international regulations.

#### Skin Sensitization:

Not applicable.

#### Germ Cell Mutagenicity:

Not applicable.

#### Carcinogenicity:

Not applicable.

#### Reproductive Toxicity:

Not applicable.



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### **Specific Target Organ Toxicity from Single Exposure:**

Causes damage to organs. Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF exposed: Call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately). Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

### **Specific Target Organ Toxicity from Repeated Exposure:**

Causes damage to organs through prolonged or repeated exposure. Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations.

### **Aspiration Hazard:**

Not applicable.

### **Additional Toxicology Information:**

Data not available.

## SECTION 12: Ecological Information

### **12.1. Ecotoxicity**

Harmful to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations.

### **12.2. Persistence and Degradability**

Data not available.

### **12.3. Bioaccumulative Potential**

Data not available.

### **12.4. Mobility in Soil**

Data not available.

### **12.5. Other Adverse Ecological Effects**

Data not available.

## SECTION 13: Disposal Considerations

### **13.1. Waste Treatment Methods**

Data not available.



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### SECTION 14: Transportation Information

#### 14.1. Transportation by Land - Department of Transportation (DOT, United States of America)

Not regulated according to DOT Regulations.

#### 14.2. Transportation by Air - International Air Transport Association (IATA)

UN Number: N/A

Proper Shipping Name:

Hazard Class:

Packing Group:

Hazard Placard Labels:

### SECTION 15: Regulatory Information

#### 15.1. Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

#### 15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Hydrochloric Acid (CAS # 7647-01-0): 500 lb TPQ (gas only)

Hydrochloric Acid (CAS # 7647-01-0): 5000 lb EPCRA RQ (gas only)

#### 15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Potassium Hydroxide (CAS # 1310-58-3): 1000 lb final RQ; 454 kg final RQ

Acetic Acid (CAS # 64-19-7): 5000 lb final RQ; 2270 kg final RQ

Hydrochloric Acid (CAS # 7647-01-0): 5000 lb final RQ; 2270 kg final RQ

#### 15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Hydrochloric Acid (CAS # 7647-01-0): 1.0 % de minimis concentration (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)



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### 15.5. Massachusetts Right-to-Know Substance List

Potassium Hydroxide (CAS # 1310-58-3): Present  
Acetic Acid (CAS # 64-19-7): Present  
Hydrochloric Acid (CAS # 7647-01-0): Extraordinarily hazardous

### 15.6. Pennsylvania Right-to-Know Hazardous Substances

Potassium Hydroxide (CAS # 1310-58-3): Environmental hazard  
Potassium Hydroxide (CAS # 1310-58-3): Present  
Acetic Acid (CAS # 64-19-7): Environmental hazard  
Acetic Acid (CAS # 64-19-7): Present  
Hydrochloric Acid (CAS # 7647-01-0): Environmental hazard  
Hydrochloric Acid (CAS # 7647-01-0): Present  
Water (CAS # 7732-18-5): Present

### 15.7. New Jersey Worker and Community Right-to-Know Components

Potassium Hydroxide (CAS # 1310-58-3): corrosive  
Potassium Hydroxide (CAS # 1310-58-3): sn 1571  
Acetic Acid (CAS # 64-19-7): corrosive  
Acetic Acid (CAS # 64-19-7): sn 0004  
Hydrochloric Acid (CAS # 7647-01-0): corrosive  
Hydrochloric Acid (CAS # 7647-01-0): sn 1012  
Hydrochloric Acid (CAS # 7647-01-0): SN 1012 TPQ: 500 lb (>=37% concentration); SN 2909 TPQ: 500 lb (Hydrogen chloride gas only. NJ uses UN1050 for reporting purposes)

### 15.8. California Proposition 65

Not listed.

### 15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Potassium Hydroxide (CAS # 1310-58-3): Present  
Acetic Acid (CAS # 64-19-7): Present  
Hydrochloric Acid (CAS # 7647-01-0): Present  
Water (CAS # 7732-18-5): Present  
Starch, soluble (CAS # 9005-84-9): Present

### 15.10. United States of America Toxic Substances Control Act (TSCA) List

Potassium Hydroxide (CAS # 1310-58-3): Present  
Acetic Acid (CAS # 64-19-7): Present  
Hydrochloric Acid (CAS # 7647-01-0): Present [T]  
Water (CAS # 7732-18-5): Present  
Starch, soluble (CAS # 9005-84-9): Present [XU]

### 15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Not listed.

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### SECTION 16: Other Information

#### 16.1. Full Text of Hazard Statements and Precautionary Statements

Causes skin irritation. Causes serious eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Causes damage to organs. Causes damage to organs through prolonged or repeated exposure. Harmful to aquatic life.

Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection.

IF ON SKIN: Wash with plenty of soap and water. IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed: Call a POISON CENTER or physician. Get medical attention if you feel unwell. Specific treatment (Wash areas of contact with water immediately). If skin irritation occurs: Get medical attention. If experiencing respiratory symptoms: Call a POISON CENTER or physician. Take off contaminated clothing and wash it before reuse.

Store locked up.

Dispose of contents in accordance with local, state, federal and international regulations.

#### 16.2. Miscellaneous Hazard Classes

**Canadian Carcinogenicity Hazard Class:** Not Applicable.

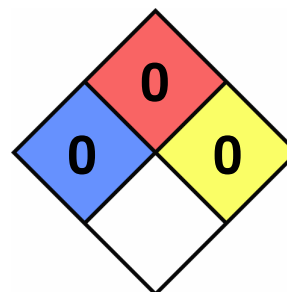
**Physical Hazards Not Otherwise Classified (PHNOC):** Not Applicable.

**Health Hazards Not Otherwise Classified (HHNOC):** Not Applicable.

**Biohazardous Infectious Materials Hazard Class:** Not Applicable.

#### 16.3. National Fire Protection Association (NFPA) Rating

**Health:** 0  
**Flammability:** 0  
**Reactivity:** 0  
**Special Hazard:**



#### 16.4. Document Revision

**Last Revision Date:** 6/23/2015



## Safety Data Sheet

### DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and REAGENTS, INC. assumes no legal responsibility or liability whatsoever resulting from its use.