

# Safety Data Sheet

## Alcohol Indicator Reagent

**CAROLINA**<sup>®</sup>  
www.carolina.com

### Section 1 Product Description

**Product Name:** Alcohol Indicator Reagent  
**Recommended Use:** Science education applications  
**Synonyms:** Alcohol Indicator Solution  
**Distributor:** Carolina Biological Supply Company  
2700 York Road, Burlington, NC 27215  
1-800-227-1150  
**Chemical Information:** 800-227-1150 (8am-5pm (ET) M-F)  
**Chemtrec:** 800-424-9300 (Transportation Spill Response 24 hours)

### Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

**DANGER**



Causes severe skin burns and eye damage. Causes serious eye damage. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause genetic defects. May cause cancer. May damage fertility or the unborn child. Very toxic to aquatic life.

**GHS Classification:**

Skin Corrosion/Irritation Category 1A, Serious Eye Damage/Eye Irritation Category 1, Respiratory Sensitisation Category 1, Germ Cell Mutagenicity Category 1B, Carcinogenicity Category 1A, Reproductive Toxicity Category 1B, Hazardous to the aquatic environment - Acute Category 1, Acute Toxicity - Inhalation Dust / Mist Category 4

**Other Safety Precautions:** IF exposed or concerned: Get medical advice/attention.

**Acute Toxicity Dermal Contains** 50.3 % of the mixture consists of ingredient(s) of unknown toxicity

### Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Sulfuric Acid, Concentrated 18M	7664-93-9	49.7
Water	7732-18-5	49.7
Potassium Dichromate	7778-50-9	0.5
Silver Nitrate	7761-88-8	0.1

### Section 4 First Aid Measures

**Emergency and First Aid Procedures**

**Inhalation:** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.  
**Eyes:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**Skin Contact:** IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.  
**Ingestion:** IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

### Section 5 Firefighting Procedures

**Extinguishing Media:** Use dry chemical, CO2 or appropriate foam.

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**Fire Fighting Methods and Protection:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.  
**Fire and/or Explosion Hazards:** Never add water to this product.  
**Hazardous Combustion Products:** Carbon dioxide, Carbon monoxide

## Section 6 Spill or Leak Procedures

**Steps to Take in Case Material Is Released or Spilled:** Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill.  
Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Do not allow the spilled product to enter public drainage system or open waterways.

## Section 7 Handling and Storage

**Handling:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. In case of inadequate ventilation wear respiratory protection. Never add water to this product.  
**Storage:** Store locked up. Store in a secure area suitable for corrosives.  
**Storage Code:** White - Corrosive. Separate acids from bases; separate oxidizer acids from organic acids.

## Section 8 Protection Information

<u>Chemical Name</u>	<u>ACGIH</u>		<u>OSHA PEL</u>	
	<u>(TWA)</u>	<u>(STEL)</u>	<u>(TWA)</u>	<u>(STEL)</u>
Sulfuric Acid, Concentrated 18M	0.2 mg/m <sup>3</sup> TWA (thoracic fraction)	N/A	1 mg/m <sup>3</sup> TWA	N/A
Potassium Dichromate	0.05 mg/m <sup>3</sup> TWA (as Cr)	N/A	5 µg/m <sup>3</sup> TWA	N/A
Silver Nitrate	0.01 mg/m <sup>3</sup> TWA (as Ag)	N/A	0.01 mg/m <sup>3</sup> TWA (as Ag)	N/A

### Control Parameters

**Engineering Measures:** No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.  
**Personal Protective Equipment (PPE):** Lab coat, apron, eye wash, safety shower.  
**Respiratory Protection:** No respiratory protection required under normal conditions of use.  
**Respirator Type(s):** NIOSH approved air purifying respirator with acid gas cartridge and dust/mist filter  
**Eye Protection:** Wear chemical splash goggles when handling this product. Have an eye wash station available.  
**Skin Protection:** Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.  
**Gloves:** Nitrile - Extra Thick (8 mm)

## Section 9 Physical Data

**Formula:** See Section 3  
**Molecular Weight:** N/A  
**Appearance:** Colorless Liquid  
**Odor:** Strong Pungent  
**Odor Threshold:** No data available  
**pH:** No data available  
**Melting Point:** 10 C  
**Boiling Point:** 100 C  
**Flash Point:** No data available  
**Flammable Limits in Air:** N/A  
**Vapor Pressure:** N/A  
**Evaporation Rate (BuAc=1):** N/A  
**Vapor Density (Air=1):** N/A  
**Specific Gravity:** 1.4  
**Solubility in Water:** Soluble  
**Log Pow (calculated):** No data available  
**Autoignition Temperature:** No data available  
**Decomposition Temperature:** No data available  
**Viscosity:** No data available  
**Percent Volatile by Volume:** N/A

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## Section 10

## Reactivity Data

<b>Reactivity:</b>	No data available
<b>Chemical Stability:</b>	Stable under normal conditions.
<b>Conditions to Avoid:</b>	Contact with water
<b>Incompatible Materials:</b>	Water, Organic Compounds, Strong reducing agents, Acetaldehydes, Amines, Water-reactive materials
<b>Hazardous Decomposition Products:</b>	Cr (VI) compounds, Sulfur containing gases
<b>Hazardous Polymerization:</b>	Will not occur

## Section 11

## Toxicity Data

<b>Routes of Entry</b>	Inhalation, ingestion, eye or skin contact.
<b>Symptoms (Acute):</b>	Eye disorders, Cardiovascular system, Respiratory disorders
<b>Delayed Effects:</b>	No data available

### Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Sulfuric Acid, Concentrated 18M	7664-93-9	Oral LD50 Rat 2140 mg/kg		INHALATION LC50 Mouse 320 MG/M3 INHALATION LC50 Rat 510 MG/M3 INHALATION LC50 GUINEA PIG 18 MG/M3
Water	7732-18-5	Oral LD50 Rat 90000 mg/kg		
Potassium Dichromate	7778-50-9	Oral LD50 Rat 25 mg/kg Oral LD50 Mouse 190 mg/kg	Dermal LD50 Rabbit 14 mg/kg	Inhalation LC50 (4h) Rat 29 MG/CU M
Silver Nitrate	7761-88-8	Oral LD50 Rat 1173 mg/kg Oral LD50 Rabbit 800 mg/kg Oral LD50 Mouse 50 mg/kg Oral LD50 GUINEA PIG 473 mg/kg		

### Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Sulfuric Acid, Concentrated 18M	7664-93-9	Not listed	Not listed	Listed
Potassium Dichromate	7778-50-9	Listed	Listed	Listed
Silver Nitrate	7761-88-8	Not listed	Not listed	Not listed

### Chronic Effects:

<b>Mutagenicity:</b>	Evidence of a mutagenic effect.
<b>Teratogenicity:</b>	Evidence of a teratogenic effect (birth defect).
<b>Sensitization:</b>	Evidence of a sensitization effect.
<b>Reproductive:</b>	Evidence of negative reproductive effects.
<b>Target Organ Effects:</b>	
<b>Acute:</b>	See Section 2
<b>Chronic:</b>	Certain components or species of this product are considered potential carcinogens.

## Section 12

## Ecological Data

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**Overview:** Slight ecological hazard. In high concentrations, this product may be dangerous to plants and/or wildlife. Harmful to fish and other water organisms.

**Mobility:** No data This material is soluble in water. It's adsorption to soil and sediment should not be significant.

**Persistence:** Biodegradation, adsorption to sediment, and bioconcentration to aquatic organisms should not be significant.

**Bioaccumulation:** No data

**Degradability:** No data

**Other Adverse Effects:** No data

Chemical Name	CAS Number	Eco Toxicity
Sulfuric Acid, Concentrated 18M	7664-93-9	96 HR LC50 BRACHYDANIO RERIO > 500 MG/L [STATIC] 24 HR EC50 DAPHNIA MAGNA 29 MG/L
Water	7732-18-5	No data available
Potassium Dichromate	7778-50-9	Aquatic LC50 (96h) Bluegill Sunfish 320 MG/L
Silver Nitrate	7761-88-8	96 HR LC50 PIMEPHALES PROMELAS 0.009 MG/L 48 HR EC50 DAPHNIA MAGNA 0.0006 MG/L

## Section 13 Disposal Information

**Disposal Methods:** Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

**Waste Disposal Code(s):** D002

## Section 14 Transport Information

**Ground - DOT Proper Shipping Name:** UN 2796, SULFURIC ACID, Class 8, P.G. II

**Air - IATA Proper Shipping Name:** Not regulated for air transport by IATA.

## Section 15 Regulatory Information

**TSCA Status:** All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Sulfuric Acid, Concentrated 18M	7664-93-9	Sulfuric acid	1000 lb RQ	1000 lb final RQ; 454 kg final RQ	1000 lb TPQ	No
Potassium Dichromate	7778-50-9	No	10 lb RQ	10 lb final RQ; 4.54 kg final RQ	No	No
Silver Nitrate	7761-88-8	No	1 lb RQ	1 lb final RQ; 0.454 kg final RQ	No	No

**California Prop 65:** WARNING: This product contains a chemical known to the state of California to cause cancer and birth defects or other reproductive harm.

## Section 16 Additional Information

**Revised:** 09/09/2015

**Replaces:** 09/03/2014

**Printed:** 10-29-2015

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

### Glossary

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ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health