

## Phenolphthalein Indicator Solution

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Phenolphthalein Indicator Solution

**Synonyms/Generic Names:** Phenolphthalein pH indicator 0.5, 1.0, or 2.0% solution

**SDS Number:** 528.00

**Product Use:** For Educational Use Only

**Manufacturer:** Columbus Chemical Industries, Inc.  
N4335 Temkin Rd.  
Columbus, WI. 53925

**For More Information Contact:** Ward's Science  
5100 West Henrietta Rd.  
PO Box 92912-9012  
Rochester, NY 14692  
(800) 962-2660 (Monday-Friday 7:30-7:00 Eastern Time)

**In Case of Emergency Call:** CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

### 2. HAZARDS IDENTIFICATION

**OSHA Hazards:** Flammable liquid, Target organ effect, Irritant

**Target Organs:** Nerves, Kidneys, Cardiovascular system, Gastrointestinal tract, Liver

**Signal Word:** Danger

**Pictograms:**



**GHS Classification:**

|                                                |             |
|------------------------------------------------|-------------|
| Flammable liquids                              | Category 2  |
| Skin irritation                                | Category 3  |
| Eye irritation                                 | Category 2A |
| Specific target organ toxicity-single exposure | Category 3  |

**GHS Label Elements, including precautionary statements:**

**Hazard Statements:**

|      |                                    |
|------|------------------------------------|
| H225 | Highly flammable liquid and vapor  |
| H316 | Causes mild skin irritation.       |
| H319 | Causes serious eye irritation.     |
| H336 | May cause drowsiness or dizziness. |

**Precautionary Statements:**

|                |                                                                                                                                  |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| P210           | Keep away from heat/sparks/open flames/hot surfaces. - No smoking.                                                               |
| P261           | Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.                                                                            |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

**Potential Health Effects**

|                   |                                                                                                            |
|-------------------|------------------------------------------------------------------------------------------------------------|
| <b>Eyes</b>       | Causes eye irritation.                                                                                     |
| <b>Inhalation</b> | May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness and dizziness. |
| <b>Skin</b>       | May be harmful if absorbed through skin. Causes skin irritation.                                           |
| <b>Ingestion</b>  | May be harmful if swallowed.                                                                               |

**NFPA Ratings**

|                        |               |
|------------------------|---------------|
| <b>Health</b>          | 1             |
| <b>Flammability</b>    | 3             |
| <b>Reactivity</b>      | 0             |
| <b>Specific hazard</b> | Not Available |

**HMIS Ratings**

|                   |   |
|-------------------|---|
| <b>Health</b>     | 1 |
| <b>Fire</b>       | 3 |
| <b>Reactivity</b> | 0 |
| <b>Personal</b>   | E |

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Component         | Weight % | CAS #     | EINECS# / ELINCS# | Formula                                        | Molecular Weight |
|-------------------|----------|-----------|-------------------|------------------------------------------------|------------------|
| Isopropyl Alcohol | 94-95    | 67-63-0   | 200-661-7         | CH <sub>3</sub> CHOHCH <sub>3</sub>            | 60.10 g/mol      |
| Water             | 3-5      | 7732-18-5 | 231-791-2         | H <sub>2</sub> O                               | 18.00 g/mol      |
| Phenolphthalein   | <1-2     | 77-09-8   | 201-004-7         | C <sub>20</sub> H <sub>14</sub> O <sub>4</sub> | 318.32 g/mol     |

**4. FIRST-AID MEASURES**

|                   |                                                                                                                                                                    |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Eyes</b>       | In case of eye contact, rinse with plenty of water and seek medical attention.                                                                                     |
| <b>Inhalation</b> | Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.         |
| <b>Skin</b>       | Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention if necessary.       |
| <b>Ingestion</b>  | <b>Do Not Induce Vomiting!</b> Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention if necessary. |

**5. FIRE-FIGHTING MEASURES**

|                                                                      |                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Suitable (and unsuitable) extinguishing media</b>                 | Flammable in the presence of a source of ignition when the temperature is above the flash point. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use appropriate media for adjacent fire. Cool containers with water. |
| <b>Special protective equipment and precautions for firefighters</b> | Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.                                                                                                                            |
| <b>Specific hazards arising from the chemical</b>                    | Emits toxic fumes (carbon oxides) under fire conditions. (See also Stability and Reactivity section).                                                                                                                                          |

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## 6. ACCIDENTAL RELEASE MEASURES

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|                                                                            |                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal precautions, protective equipment and emergency procedures</b> | See section 8 for recommendations on the use of personal protective equipment.                                                                                                                                                                                            |
| <b>Environmental precautions</b>                                           | Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.                                                                                                                                 |
| <b>Methods and materials for containment and cleaning up</b>               | Neutralize spill. Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations. |

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## 7. HANDLING AND STORAGE

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### Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols.

### Conditions for safe storage, including any incompatibilities

Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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### Occupational exposure controls:

| Component         | Exposure Limits                   | Basis | Entity |
|-------------------|-----------------------------------|-------|--------|
| Isopropyl Alcohol | 200 ppm<br>492 mg/m <sup>3</sup>  | TLV   | ACGIH  |
|                   | 400 ppm<br>984 mg/m <sup>3</sup>  | STEL  | ACGIH  |
|                   | 400 ppm<br>980 mg/m <sup>3</sup>  | PEL   | OSHA   |
|                   | 400 ppm<br>980 mg/m <sup>3</sup>  | REL   | NIOSH  |
|                   | 500 ppm<br>1225 mg/m <sup>3</sup> | STEL  | NIOSH  |

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

### Personal Protection

|                   |                                                                                                             |
|-------------------|-------------------------------------------------------------------------------------------------------------|
| <b>Eyes</b>       | Wear chemical safety glasses or goggles.                                                                    |
| <b>Inhalation</b> | Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator. |
| <b>Skin</b>       | Wear nitrile or rubber gloves, apron or lab coat.                                                           |
| <b>Other</b>      | Not Available                                                                                               |

### Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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|                                             |                          |
|---------------------------------------------|--------------------------|
| Appearance (physical state, color, etc.)    | Clear, colorless liquid. |
| Odor                                        | Alcohol-like.            |
| Odor threshold                              | Not Available            |
| pH                                          | Not Available            |
| Melting point/freezing point                | Not Available            |
| Initial boiling point and boiling range     | Not Available            |
| Flash point                                 | Not Available            |
| Evaporation rate                            | Not Available            |
| Flammability (solid, gas)                   | Flammable liquid.        |
| Upper/lower flammability or explosive limit | Not Available            |
| Vapor pressure                              | Not Available            |
| Vapor density                               | Not Available            |
| Density                                     | 0.9113 (Water = 1)       |
| Solubility (ies)                            | Not Available            |
| Partition coefficient: n-octanol/water      | Not Available            |
| Auto-ignition temperature                   | Not Available            |
| Decomposition temperature                   | Not Available            |

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## 10. STABILITY AND REACTIVITY

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|                                           |                                                                            |
|-------------------------------------------|----------------------------------------------------------------------------|
| <b>Chemical Stability</b>                 | Stable                                                                     |
| <b>Possibility of Hazardous Reactions</b> | Will not occur.                                                            |
| <b>Conditions to Avoid</b>                | Heat, flames and sparks. Extremes of temperature and direct sunlight.      |
| <b>Incompatible Materials</b>             | Aluminum, acids, oxidizing agents, halogenated compounds, acid anhydrides. |
| <b>Hazardous Decomposition Products</b>   | Carbon oxides.                                                             |

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## 11. TOXICOLOGICAL INFORMATION

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### Acute Toxicity

|                    |                              |
|--------------------|------------------------------|
| <b>Skin</b>        | LD50 – rabbit – 18,286 mg/kg |
| <b>Eyes</b>        | Not Available                |
| <b>Respiratory</b> | Not Available                |
| <b>Ingestion</b>   | LD50 – mouse – 5,143 mg/kg   |

### Carcinogenicity

|              |                                                                                                                                              |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>IARC</b>  | 3-Group 3: Not classifiable as to its carcinogenicity to humans (Isopropyl Alcohol).                                                         |
| <b>ACGIH</b> | A4: Not classifiable as a human carcinogen (Isopropyl Alcohol).                                                                              |
| <b>NTP</b>   | No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.     |
| <b>OSHA</b>  | No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. |

### Signs & Symptoms of Exposure

|                    |                                                                |
|--------------------|----------------------------------------------------------------|
| <b>Skin</b>        | Irritation, redness, itchiness.                                |
| <b>Eyes</b>        | Irritation, redness, watering eyes, itchiness.                 |
| <b>Respiratory</b> | Irritation, coughing, wheezing, dizziness, drowsiness.         |
| <b>Ingestion</b>   | Irritation, nausea, vomiting, diarrhea, dizziness, drowsiness. |

|                                       |                                                                                                |
|---------------------------------------|------------------------------------------------------------------------------------------------|
| <b>Chronic Toxicity</b>               | May cause damage to the following organs: kidneys, liver, skin, central nervous system.        |
| <b>Teratogenicity</b>                 | Not Available                                                                                  |
| <b>Mutagenicity</b>                   | Not Available                                                                                  |
| <b>Embryotoxicity</b>                 | Not Available                                                                                  |
| <b>Specific Target Organ Toxicity</b> | Not Available                                                                                  |
| <b>Reproductive Toxicity</b>          | Classified Reproductive system/toxin/female. (Isopropanol)<br>Development toxin. (Isopropanol) |
| <b>Respiratory/Skin Sensitization</b> | Not Available                                                                                  |

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## 12. ECOLOGICAL INFORMATION

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### Ecotoxicity

|                             |               |
|-----------------------------|---------------|
| <b>Aquatic Vertebrate</b>   | Not Available |
| <b>Aquatic Invertebrate</b> | Not Available |
| <b>Terrestrial</b>          | Not Available |

|                                      |               |
|--------------------------------------|---------------|
| <b>Persistence and Degradability</b> | Not Available |
| <b>Bioaccumulative Potential</b>     | Not Available |
| <b>Mobility in Soil</b>              | Not Available |
| <b>PBT and vPvB Assessment</b>       | Not Available |
| <b>Other Adverse Effects</b>         | Not Available |

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## 13. DISPOSAL CONSIDERATIONS

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|                           |                                                                                                                                                                                                                    |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Waste Residues</b>     | Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residues. |
| <b>Product Containers</b> | Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product containers.  |

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

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## 14. TRANSPORTATION INFORMATION

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|                  |                                        |
|------------------|----------------------------------------|
| US DOT           | UN1219, Isopropanol solution, 3, pg II |
| TDG              | UN1219, ISOPROPANOL SOLUTION, 3, PG II |
| IMDG             | UN1219, ISOPROPANOL SOLUTION, 3, PG II |
| Marine Pollutant | No                                     |
| IATA/ICAO        | UN1219, Isopropanol solution, 3, pg II |

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## 15. REGULATORY INFORMATION

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|                           |                                                                                                                                        |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| TSCA Inventory Status     | All ingredients are listed on the TSCA inventory.                                                                                      |
| DSCL (EEC)                | All ingredients are listed on the DSCL inventory.                                                                                      |
| California Proposition 65 | Not Listed                                                                                                                             |
| SARA 302                  | Not Listed                                                                                                                             |
| SARA 304                  | Not listed                                                                                                                             |
| SARA 311                  | Isopropyl Alcohol                                                                                                                      |
| SARA 312                  | Isopropyl Alcohol                                                                                                                      |
| SARA 313                  | Listed: Isopropyl Alcohol                                                                                                              |
| WHMIS Canada              | CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).<br>CLASS D-2B: Material causing other toxic effects (TOXIC). |

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## 16. OTHER INFORMATION

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| Revision   | Date       |
|------------|------------|
| Revision 1 | 01/04/2012 |
|            |            |
|            |            |

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