

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 01.06.2015**Universal Indicator****SECTION 1: Identification of the substance/mixture and of the supplier****Product name:** Universal Indicator**Manufacturer/Supplier Article number:** S25363B**Recommended uses of the product and restrictions on use:** Laboratory**Manufacturer Details:**

AquaPhoenix Scientific  
860 Gitts Run Road,  
Hanover, PA 17331  
(717) 632-1291

**Supplier Details:**

Fisher Science Education  
6771 Silver Crest Road, Nazareth, PA 18064  
800 955-1177

**Emergency telephone number:**

Emergency Telephone No.: 800-255-3924

**SECTION 2: Hazards identification****Classification of the substance or mixture:****Flammable**

Flammable solids, category 2

Flammable liq. 2.

**Signal word:** Danger**Hazard statements:**

Highly flammable liquid and vapour.

**Precautionary statements:**

If medical advice is needed have product container or label at hand.  
Keep out of reach of children.  
Read label before use.  
Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/light/.../equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
In case of fire: Use ... for extinction.  
Store in a well ventilated place. Keep cool.  
Dispose of contents/container.

**Other Non-GHS Classification:** None

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**Universal Indicator****SECTION 3: Composition/information on ingredients****Ingredients:**

| <b>Ingredients:</b>       |                                |         |
|---------------------------|--------------------------------|---------|
| CAS 64-17-5               | Ethanol                        | 47.34 % |
| CAS 34722-90-2            | Bromothymol Blue, Sodium Salt  | 0.05 %  |
| CAS 7732-18-5             | Deionized Water                | 52.45 % |
| CAS 547-58-0              | Methyl Orange                  | 0.02 %  |
| CAS 845-10-3              | Methyl Red, Sodium Salt        | 0.015 % |
| CAS 518-51-4              | Phenolphthalein, Disodium Salt | 0.035 % |
| Percentages are by weight |                                |         |

**SECTION 4: First aid measures****Description of first aid measures****After inhalation:**

Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. If breathing is difficult give oxygen. Immediately get medical assistance.

**After skin contact:**

Wash affected area with soap and water. Rinse/flush exposed skin gently using water for 15-20 minutes. Seek medical attention if irritation persists or if concerned.

**After eye contact:**

Protect unexposed eye. Remove contact lens(es) if able to do so during rinsing. Rinse or flush exposed eye gently using water for 15-20 minutes. Immediately get medical assistance.

**After swallowing:**

Rinse mouth thoroughly. Do not induce vomiting. Dilute mouth with water or milk after rinsing. Immediately get medical assistance.

**Most important symptoms and effects, both acute and delayed:**

Irritation. Nausea. Headache. Shortness of breath.

**Indication of any immediate medical attention and special treatment needed:**

If seeking medical attention, provide SDS document to physician. Physician should treat symptomatically.

**SECTION 5: Firefighting measures****Extinguishing media****Suitable extinguishing agents:**

Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam. Water spray can keep containers cool.

**Unsuitable extinguishing agents:** None**Special hazards arising from the substance or mixture:**

Moderate explosion hazard. Dangerous fire hazard when exposed to heat, sparks, and open flames.

**Advice for firefighters:****Protective equipment:**

Wear protective eyewear, gloves, and clothing. Refer to Section 8.

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Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

**SECTION 6: Accidental release measures****Personal precautions, protective equipment and emergency procedures:**

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. Ensure adequate ventilation.

**Environmental precautions:**

Prevent from reaching drains, sewer or waterway. Ethanol has a slight acute and chronic toxicity to aquatic life.

**Methods and material for containment and cleaning up:**

If necessary use trained response staff or contractor. Refer to Section 8. Wear protective eyewear, gloves, and clothing. Remove all sources of ignition. Contain spill. Absorb with suitable material and place in chemical waste container. Ventilate area of spill. Use non-sparking equipment. Dispose of empty containers as unused product. Refer to Section 13.

**Reference to other sections:** None**SECTION 7: Handling and storage****Precautions for safe handling:**

Wear protective eyewear, gloves, and clothing. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with skin, eyes and clothing. Empty containers can still be hazardous since they retain product residue. Refer to Section 8.

**Conditions for safe storage, including any incompatibilities:**

Store in a cool location. Store in a secure flammable storage area away from sources of ignition. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Keep container tightly closed. Store with like hazards. Protect from freezing and physical damage.

**SECTION 8: Exposure controls/personal protection****Control parameters:**

64-17-5, Ethanol, Denatured , ACGIH TLV: 1880 mg/m<sup>3</sup>.  
64-17-5, Ethanol, Denatured , OSHA PEL: 1900 mg/m<sup>3</sup>.

**Appropriate engineering controls:**

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Ensure that dust-handling systems (exhaust ducts, dust collectors, vessels, and processing equipment) are designed to prevent the escape of dust into the work area.

**Respiratory protection:**

Not required under normal conditions of use. Use suitable respiratory protective device when high concentrations are present. If exposure limit is exceeded, a full-face respirator with organic cartridge may be worn.

**Protection of skin:**

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation.

**Eye protection:**

Safety glasses with side shields or goggles.

**General hygienic measures:**

Wash hands before breaks and at the end of work. Perform routine housekeeping to prevent dust generation. Before re-wearing, wash contaminated clothing. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

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**Universal Indicator****SECTION 9: Physical and chemical properties**

|  |                    |   |  |
|--|--------------------|---|--|
| <b>Appearance (physical state, color):</b> | Clear green liquid | <b>Explosion limit lower:</b>                   | 3.3  |
|  |                    | <b>Explosion limit upper:</b>                   | 18.0   |
| <b>Odor:</b>                               | Alcohol            | <b>Vapor pressure at 20°C:</b>                  | 48 mm Hg   |
| <b>Odor threshold:</b>                     | Not determined     | <b>Vapor density:</b>                           | 1.5  |
| <b>pH-value:</b>                           | Not determined     | <b>Relative density:</b>                        | 0.93   |
| <b>Melting/Freezing point:</b>             | Not determined     | <b>Solubilities:</b>                            | Infinite solubility.                                       |
| <b>Boiling point/Boiling range:</b>        | 80C                | <b>Partition coefficient (n-octanol/water):</b> | Not determined   |
| <b>Flash point (closed cup):</b>           | 15.5°C             | <b>Auto/Self-ignition temperature:</b>          | Not determined   |
| <b>Evaporation rate:</b>                   | 3.6                | <b>Decomposition temperature:</b>               | Not determined   |
| <b>Flammability (solid, gaseous):</b>      | Not determined     | <b>Viscosity:</b>                               | a. Kinematic: Not determined<br>b. Dynamic: Not determined |
| <b>Density at 20°C:</b>                    | Not determined     |   |  |

**SECTION 10: Stability and reactivity****Reactivity:** None**Chemical stability:**

Stable under normal conditions.

**Possible hazardous reactions:**

Vapours may form explosive mixture with air.

**Conditions to avoid:**

Excessive heat. Incompatible materials. Ignition sources.

**Incompatible materials:**

Strong oxidizers, heat, sparks, open flames, platinum, sodium, bromine pentafluoride, potassium dioxide, acetyl bromide, and acetyl chloride.

**Hazardous decomposition products:**Carbon oxides (CO, CO<sub>2</sub>). Acrid and irritating fumes.**SECTION 11: Toxicological information****Acute Toxicity:****Dermal:**

LD-50 15800 mg/kg (rabbit).

**Chronic Toxicity:** No additional information.**Skin corrosion/irritation:** No additional information.**Serious eye damage/irritation:** No additional information.**Respiratory or skin sensitization:** No additional information.**Carcinogenicity:** No additional information.**Germ cell mutagenicity:** No additional information.**Reproductive Toxicity:** No additional information.**STOT-single and repeated exposure:** No additional information.

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No additional information.

**SECTION 12: Ecological information****Ecotoxicity:**

Aquatic Tox., Ethanol has a slight acute and chronic toxicity to aquatic life.

**Persistence and degradability:** No additional information.**Bioaccumulative potential:** No additional information.**Mobility in soil:**

Aqueous solution has high mobility in soil.

**Other adverse effects:** No additional information.**SECTION 13: Disposal considerations****Waste disposal recommendations:**

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Absorb with suitable absorbent material such as sand or earth and containerize for disposal. Ventilate area of leak or spill. Have fire extinguishing agent available in case of fire. Eliminate all sources of ignition. Use spark-proof tools and explosion-proof equipment. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

**SECTION 14: Transport information****US DOT****UN Number:**

ADR, ADN, DOT, IMDG, IATA

UN1170

**Limited Quantity Exception:**

None

**Bulk:****RQ (if applicable):** None**Proper shipping Name:** Ethanol.**Hazard Class:** None**Packing Group:** II.**Marine Pollutant (if applicable):** No additional information.**Comments:** None**Non Bulk:****RQ (if applicable):** None**Proper shipping Name:** Ethanol.**Hazard Class:** None**Packing Group:** II.**Marine Pollutant (if applicable):** No additional information.**Comments:** None**SECTION 15: Regulatory information****United States (USA)****SARA Section 311/312 (Specific toxic chemical listings):**

Acute, Chronic, Fire

**SARA Section 313 (Specific toxic chemical listings):**

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None of the ingredients are listed.

**RCRA (hazardous waste code):**

None of the ingredients are listed.

**TSCA (Toxic Substances Control Act) :**

All ingredients are listed.

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):**

None of the ingredients are listed.

**Proposition 65 (California):****Chemicals known to cause cancer:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

64-17-5 Ethanol.

**Canada****Canadian Domestic Substances List (DSL) :**

All ingredients are listed.

**SECTION 16: Other information**

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. Note. 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**GHS Full Text Phrases:** None**Abbreviations and Acronyms:**

|       |   |
|-------|---|
| IMDG  | International Maritime Code for Dangerous Goods.    |
| PNEC. | Predicted No-Effect Concentration (REACH).          |
| CFR   | Code of Federal Regulations (USA)                   |
| SARA  | Superfund Amendments and Reauthorization Act (USA). |
| RCRA. | Resource Conservation and Recovery Act (USA).       |
| TSCA. | Toxic Substances Control Act (USA).                 |
| NPRI  | National Pollutant Release Inventory (Canada).      |
| DOT   | US Department of Transportation.                    |

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|       |  |
|-------|--|
| IATA  | International Air Transport Association.                                 |
| GHS   | Globally Harmonized System of Classification and Labelling of Chemicals. |
| ACGIH | American Conference of Governmental Industrial Hygienists                |
| CAS   | Chemical Abstracts Service (division of the American Chemical Society).  |
| NFPA  | National Fire Protection Association (USA).                              |
| HMIS  | Hazardous Materials Identification System (USA).                         |
| WHMIS | Workplace Hazardous Materials Information System (Canada).               |
| DNEL  | Derived No-Effect Level (REACH).   |