

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 01.06.2015

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Universal Indicator

SECTION 1: Identification of the substance/mixture and of the supplier

Product name: Universal Indicator

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: S25363B

Recommended uses of the product and restrictions on use:

Manufacturer Details:

AquaPhoenix Scientific, Inc
9 Barnhart Drive, Hanover, PA 17331
(717) 632-1291

Supplier Details:

Fisher Science Education
6771 Silver Crest Road, Nazareth, PA 18064
(724)517-1954

Emergency telephone number:

Fisher Science Education Emergency Telephone No.: 800-535-5053

SECTION 2: Hazards identification

Classification of the substance or mixture:

Flammable solids, category 2

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 to

Other Non-GHS Classification:

WHMIS

B2



D2B



NFPA/HMIS

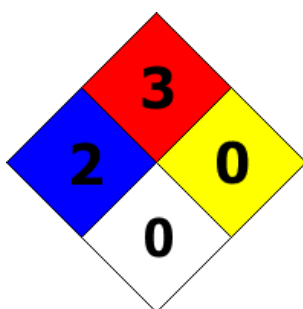
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NFPA SCALE (0-4)

| | |
|---------------------|---|
| Health | 2 |
| Flammability | 3 |
| Physical Hazard | 0 |
| Personal Protection | X |

HMIS RATINGS (0-4)

SECTION 3: Composition/information on ingredients

| Ingredients: | | |
|----------------|-----------------------------|---------|
| CAS 64-17-5 | Ethanol | 47.34 % |
| CAS 34722-90-2 | Bromthymol Blue,Sodium Salt | 0.05 % |
| CAS 7732-18-5 | DI Water | 52.45 % |
| CAS 547-58-0 | Methyl Orange | 0.02 % |
| CAS 845-10-3 | Methyl Red,Sodium Salt | 0.015 % |
| CAS 77-09-8 | Phenolphthalein | 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

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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.

Additional information (precautions):

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

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 sealed. 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: 1880mg/m3.
64-17-5, Ethanol, Denatured , OSHA PEL: 1900mg/m3.

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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 wearing wash contaminated clothing. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

SECTION 9: Physical and chemical properties

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

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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, CO₂). Acrid and irritating fumes.

SECTION 11: Toxicological information

| | | |
|---|----------|----------------------------|
| Acute Toxicity: | | |
| Dermal: | (rabbit) | LD-50 15800 mg/kg |
| Oral: | (rat) | LD-50 5628 mg/kg |
| Inhalation: | (rat) | LC-50 130,7 mg/l |
| Chronic Toxicity: No additional information. | | |
| Corrosion Irritation: No additional information. | | |
| Sensitization: | | No additional information. |
| Single Target Organ (STOT): | | No additional information. |
| Numerical Measures: | | No additional information. |
| Carcinogenicity: | | No additional information. |
| Mutagenicity: | | No additional information. |
| Reproductive Toxicity: | | No additional information. |

SECTION 12: Ecological information

Ecotoxicity:

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

Persistence and degradability: None

Bioaccumulative potential: None

Mobility in soil:

Aqueous solution has high mobility in soil.

Other adverse effects: None

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

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generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

SECTION 14: Transport information

UN-Number:

UN1170

UN proper shipping name:

Ethanol

Transport hazard class(es): None

Packing group: II

Environmental hazard: None

Transport in bulk: Not Applicable

Special precautions for user: 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):

None of the ingredients are listed.

RCRA (hazardous waste code):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act):

None of the 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.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

64-17-5 Ethanol.

Canadian NPRI Ingredient Disclosure list (limit 1%):

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None of the 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.

GHS Full Text Phrases: None

Abbreviations and Acronyms:

IMDGIInternational Maritime Code for Dangerous Goods.
PNECPredicted No-Effect Concentration (REACH).
CFRCode of Federal Regulations (USA).
SARASuperfund Amendments and Reauthorization Act (USA).
RCRResource Conservation and Recovery Act (USA).
TSCAToxic Substances Control Act (USA).
NPRINational Pollutant Release Inventory (Canada).
DOTUS Department of Transportation.
IATAInternational Air Transport Association.
GHSGlobally Harmonized System of Classification and Labelling of Chemicals.
ACGIHAmerican Conference of Governmental Industrial Hygienists.
CASChemical Abstracts Service (division of the American Chemical Society).
NFPANational Fire Protection Association (USA).
HMISHazardous Materials Identification System (USA).
WHMISWorkplace Hazardous Materials Information System (Canada).
DNELDerived No-Effect Level (REACH).

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