

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 12.22.2014**Acetic Anhydride****SECTION 1: Identification of the substance/mixture and of the supplier****Product name:** Acetic Anhydride**Manufacturer/Supplier Article number:** AA1080**Recommended uses of the product and restrictions on use:** Laboratory**Manufacturer Details:**

AquaPhoenix Scientific, Inc.
860 Gitts Run Road
Hanover, PA 17331
1-717-632-1291

Emergency telephone number:**ChemTel: (24-hour)**

+1(800)255-3924

+1(813)248-0585 (International)

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

Flammable liquids, category 3

**Irritant**

Acute toxicity (oral, dermal, inhalation), category 4

Acute toxicity (oral, dermal, inhalation), category 3

**Corrosive**

Skin corrosion, category 1B

Serious eye damage, category 1

Flam Liq. 3.

AcTox Oral 4.

AcTox Inhaln 4.

Skin corr. 1B.

Eye. Damage 1.

Signal word: Danger**Hazard statements:**

Flammable liquid and vapour.

Harmful if swallowed.

Causes severe skin burns and eye damage.

Causes serious eye damage.

Toxic if inhaled.

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 container tightly closed.

Do not eat, drink or smoke when using this product.

Wash skin thoroughly after handling.

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Avoid breathing dust/fume/gas/mist/vapors/spray.
 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 Ground/bond container and receiving equipment.
 Use explosion-proof electrical/ventilating/light/.../equipment.
 Use only non-sparking tools.
 Take precautionary measures against static discharge.
 Use only outdoors or in a well-ventilated area.
 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.
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 Immediately call a POISON CENTER or doctor/physician.
 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 doctor/physician.
 Wash contaminated clothing before reuse.
 In case of fire, use agents recommended in section 5 for extinction.
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
 Rinse mouth.
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 Store in a well ventilated place. Keep cool.
 Store locked up.
 Store in a well ventilated place. Keep container tightly closed.
 Dispose of contents and container as instructed in Section 13.

Other Non-GHS Classification: None**SECTION 3: Composition/information on ingredients****Ingredients:**

| Ingredients: | | |
|---------------------------|------------------|-------|
| CAS 108-24-7 | Acetic Anhydride | 100 % |
| 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. Seek medical advice if discomfort or irritation persists. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

After skin contact:

Rinse exposed skin with water for 20 minutes. Immediately enter emergency shower rinsing while removing contaminated clothing and shoes. Transport victim to the hospital.

After eye contact:

Protect unexposed eye. Flush exposed eye gently using water for 15-20 minutes. Remove contact lenses, if present and easy to do, and continue rinsing. Immediately seek medical attention.

After swallowing:

Rinse mouth thoroughly. Do not induce vomiting. Dilute with water or milk. Immediately seek medical attention.

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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. Use water spray to cool unopened containers.

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

Thermal decomposition may lead to release of irritating gases and vapor.

Advice for firefighters:**Protective equipment:**

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

Additional information (precautions): None**SECTION 6: Accidental release measures****Personal precautions, protective equipment and emergency procedures:**

Ensure adequate ventilation. Ensure that air-handling systems are operational. Use explosion - proof equipment.

Environmental precautions:

Prevent from reaching drains, sewer or waterway. Should not be released into environment.

Methods and material for containment and cleaning up:

Wear protective eyewear, gloves, and clothing. Always obey local regulations. If necessary use trained response staff or contractor. Evacuate personnel to safe areas. Containerize for disposal. Refer to Section 13. Keep in suitable closed containers for disposal. Refer to Section 8.

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

Wear protective eyewear, gloves, and clothing. Always obey local regulations. If necessary use trained response staff or contractor. Evacuate personnel to safe areas. Containerize for disposal. Refer to Section 13. Keep in suitable closed containers for disposal. Keep away from open flames, hot surfaces and sources of ignition. Refer to Section 8.

Conditions for safe storage, including any incompatibilities:

Avoid contact with skin, eyes and clothing. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Follow proper disposal methods. Do not eat, drink, smoke, or use personal products when handling chemical substances. Refer to Section 13.

SECTION 8: Exposure controls/personal protection

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| Control parameters: | 108-24-7, Acetic Anhydride , NIOSH 5 ppm Ceiling; 20 mg/m3 Ceiling. 108-24-7, Acetic Anhydride , NIOSH 200 ppm IDLH. 108-24-7, Acetic Anhydride , ACGIH 3 ppm STEL; 1 ppm TWA. |
| Appropriate engineering controls: | Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. 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. |
| Respiratory protection: | Not required under normal conditions of use. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment. |
| Protection of skin: | Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing. |
| Eye protection: | Safety glasses with side shields or goggles. Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). |
| General hygienic measures: | Perform routine housekeeping. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes and clothing. Before re-wearing, wash contaminated clothing. |

SECTION 9: Physical and chemical properties

| | | | |
|--|-------------------------|---|--|
| Appearance (physical state, color): | Clear, colorless liquid | Explosion limit lower: | 2.7 %(V) |
| | | Explosion limit upper: | 10.3 %(V) |
| Odor: | Vinegar-like | Vapor pressure at 20°C: | 3.9 mm Hg @68F |
| Odor threshold: | Not determined | Vapor density: | 3.52 - (Air = 1.0) |
| pH-value: | Not determined | Relative density: | 1.08 g/cm3 |
| Melting/Freezing point: | -73 °C | Solubilities: | Soluble in water. |
| Boiling point/Boiling range: | 137 °C | Partition coefficient (n-octanol/water): | log pow: ca. - 0.27 |
| Flash point (closed cup): | 52 °C | Auto/Self-ignition temperature: | 316 °C |
| Evaporation rate: | 0.46 | Decomposition temperature: | Not determined |
| Flammability (solid, gaseous): | Flammable | Viscosity: | a. Kinematic: Not determined b. Dynamic: Not determined |
| Density at 20°C: | Not determined | | |

SECTION 10: Stability and reactivity**Reactivity:**

Reacts violently with water.

Chemical stability:

May decompose if exposed to moist air or water. Substance is readily hydrolyzed. Reacts with water to form corresponding acid.

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Ignition sources, contact with water, excess heat, exposure to moist air or water.

Incompatible materials:

Strong oxidizing agents, strong reducing agents, acids, bases, alcohols, metal powders, and moisture.

Hazardous decomposition products:

Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

SECTION 11: Toxicological information**Acute Toxicity:****Dermal:**

LD50 Dermal - Rabbit - 4,320 mg/kg 108-24-7.

Chronic Toxicity: No additional information.**Skin corrosion/irritation:**

Causes burns. 108-24-7.

Serious eye damage/irritation: No additional information.**Respiratory or skin sensitization:**

Irritation: Causes severe burns by all routes of exposure.

Carcinogenicity: No additional information.**Germ cell mutagenicity:** No additional information.**Reproductive Toxicity:**

Experiments have shown reproductive toxicity effects on laboratory animals.

STOT-single and repeated exposure: No additional information.**Additional toxicological information:**

No additional information.

SECTION 12: Ecological information**Ecotoxicity:**

108-24-7, LC50 - Leuciscus idus melanotus - 265 mg/l - 48 h.

108-24-7, EC50 - Daphnia (water flea) - 55 mg/l - 96 h.

108-24-7, EC10 - Desmodesmus subspicatus (green algae) - 3,400 mg/l - 192 h.

Persistence and degradability:

108-24-7: Zahn - Wellens Test - Exposure time 5 d Result : - Readily biodegradable.

Bioaccumulative potential: No additional information.**Mobility in soil:** No additional information.**Other adverse effects:** No additional information.**SECTION 13: Disposal considerations****Waste disposal recommendations:**

Do not allow product to reach sewage system or open water. It is the responsibility of the waste generator to

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properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Product or containers must not be disposed together with household garbage.

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

ADR, ADN, DOT, IMDG, IATA

1715

Limited Quantity Exception:

None

Bulk:**RQ (if applicable):** None**Proper shipping Name:** Glacial Acetic anhydride.**Hazard Class:** 8**Packing Group:** II.**Marine Pollutant (if applicable):** No additional information.**Comments:** None**Non Bulk:****RQ (if applicable):** None**Proper shipping Name:** Glacial Acetic anhydride.**Hazard Class:** 8**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, 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) :

All ingredients are listed.

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

108-24-7 Acetic Anhydride 5000 lb.

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:

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None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

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: 3-0-0**HMIS:** 3-0-3**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. |
| 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). |