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5. Fire- Fighting Measures

Extinguishing Media: Dry chemical, carbon dioxide, alcohol foam, water.

Fire Hazards (Chemical): Not flammable.

Special Protective Equipment: Fire fighters should use self-contained breathing apparatus and protective clothing.

Precautions for Firefighters: Fire fighters should use self-contained breathing apparatus and protective clothing.

6. Accidental Release Measures

Emergency Procedures: Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

Protective Equipment: See section 8

Environmental Precautions: Prevent release to the environment by using barriers.

Containment and Clean-Up Procedures: Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

7. Handling and Storage

Handling: Do not breathe vapors. Do not eat, drink or smoke when using this product.

Storage: Store in a well-ventilated, cool place. Keep lid tightly closed.

8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs):

Reagent	CAS #	OSHA PEL TWA
Glacial Acetic Acid	64-19-7	10 ppm, 25 mg/m3

ACGIH Threshold Limit Values (TLVs):

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
Glacial Acetic Acid	64-19-7	10 ppm, 25 mg/m3	15 ppm, 37 mg/m3

Engineering Controls: Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

Special PPE Requirements: If ventilation hood not available wear respirator.

9. Physical and Chemical Properties Section

Appearance: Colorless, Liquid

Molecular Weight: N/A

Molecular Formula: N/A

pH: 2.3-2.5

Boiling Point and Boiling Range: N/A

Melting Point/Freezing Point: N/A

Flash Point: N/A

Specific Gravity/Relative Density: N/A

Odor: Pungent, like vinegar

Odor Threshold: N/A

Color: Colorless

Flammability (solid/gas): N/A

Vapor Density: N/A

Upper/Lower flammability or explosive limits: N/A

Vapor Pressure: N/A

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Evaporation Rate: N/A
Partition Coefficient: n-octanol/water: N/A
Viscosity: N/A
Auto-ignition temperature: N/A
Solubility: Soluble in water.
Decomposition Temperature: N/A

10. Stability and Reactivity

Reactivity:
Chemical Stability: Stable
Conditions of Stability/Instability: N/A
Stabilizers needed: None
Safety issue indicated by appearance change: N/A
Other: N/A
Hazardous Reactions: N/A
Hazardous Polymerization: Does not occur
Conditions to avoid: N/A
Classes of Incompatible Materials: Oxidizers, Strong Acids, Strong Bases
Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (I.e. Carbon monoxide) may be released in a fire.

11. Toxicological Information

Likely Routes of Exposure

Eyes: Irritation. Slightly hazardous in case of eye contact.
Skin: Irritation. Slightly hazardous in case of skin contact.
Inhalation: Dizziness, headache.
Ingestion: Nausea.

Signs or Symptoms of Exposure: Nausea.

Effects from short term exposure (delayed, immediate, chronic): Repeated or prolonged exposure is not known to aggravate medical conditions.

Acute Toxicity (Numerical Measures): Glacial Acetic Acid CAS 64-19-7: LD50 (mammal, skin)=1060mg/kg; LD50 (rabbit, skin)=1060 mg/kg; LC50(inhalation, mouse)=5620 ppm/1H; LC50(inhalation, mouse)=5620 mg/m³/1H

Carcinogenicity (NTP, IARC, OSHA): Not listed as a carcinogen.

12. Ecological Information

Ecotoxicity: Acute Aquatic Effects Data for 100% Glacial Acetic Acid 96 h LC-50 (fathead minnow): > 100mg/L 48 h LC-50 (golden orfe): 410 mg/L 48 h LC-50 (mosquito fish): 251 mg/L 96 h LC-50 (daphnid): > 100 mg/L

Persistence and degradability: The product itself and its products of degradation are not toxic.

Bioaccumulation Potential (octanol-water partition coefficient, BCF): This material is a strongly acidic aqueous solution, and this property may cause adverse environmental effects. Oxygen Demand Data for 100% Glacial Acetic Acid BOD-5: 340-880 mg/g BOD-20: 900 mg/g COD: 1,030 mg/g

Mobility in the soil: N/A

Adverse Environmental Effects: N/A

13. Disposal Considerations

Recommended Disposal Containers: Check with your local waste authorities*

Recommended Disposal Methods: Do not dispose of in drains, check with your local waste authorities.*

Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.*

Special Precautions for Landfill and Incineration Activities: Check with your local waste authorities.*

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Waste Stream: Consult your local or regional authorities.*

14. Transport Information

UN Number: Not applicable.

UN Proper Shipping Name:

Transport Hazard Class(es):

Packing Group Number:

Environmental Hazards (IMDG code):

Marine Pollutant:

Transport in Bulk (IBC Code):

Special Transport Precautions:

15. Regulatory Information

OSHA:

DOT:

EPA:

CPSC:

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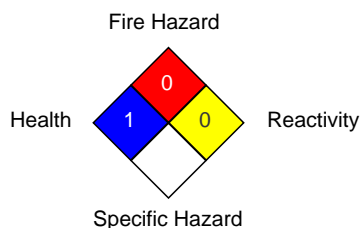
16. Other Information

Revision Date: 12/10/2014

NFPA

Health	1
Fire Hazard	0
Reactivity	0
Specific Hazard	

National Fire Protection Association (USA) NFPA



HMIS

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	

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