Material Safety Data Sheet
Ammonium Acetate Buffers for Iron

Section 1 - Chemical Product and Company Identification

MSDS Name:
Ammonium Acetate Buffers for Iron
Catalog Numbers:
LC10970, LC10985
Synonyms:
Ammonium Acetate Buffers, APHA, ASTM, TAPPI

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	balance
64-19-7	Acetic acid	20-70
631-61-8	Ammonium acetate	10-25

Section 3 - Hazards Identification

Emergency Overview

Appearance: *clear, colorless solution*
Danger! Causes severe irritation with possible burns by all exposure routes.
Target Organs: *eyes, skin, respiratory tract, teeth, liver*

Potential Health Effects

Eye:
Causes severe eye irritation with possible burns.
Skin:
Causes severe skin irritation with possible burns.
Ingestion:
Causes severe gastrointestinal irritation with possible burns. May cause nausea, vomiting, diarrhea, swelling of the throat, and perforation of the gastrointestinal tract.

Inhalation:
Causes severe irritation to respiratory tract with sore throat, headache, nausea, dizziness, vomiting, coughing, dyspnea, bronchitis, and possible pulmonary edema.

Chronic:
Dental erosion, tooth discolorization, jaw necrosis, nasal ulceration, laryngitis, bronchitis, pneumonia and gastrointestinal disturbances can occur.

Section 4 - First Aid Measures

Eyes:
Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once

Skin:
Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid at once.

Ingestion:
Do not induce vomiting. Give conscious victim 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid at once.

Inhalation:
Move victim to fresh air immediately. If breathing is difficult, administer oxygen. Give artificial respiration if necessary, using a mechanical device such as a bag and mask or one-way valve. Get medical aid at once.

Notes to Physician:
Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Containers may explode in the heat of a fire. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Contact with metals may evolve flammable hydrogen gas.

Extinguishing Media:
For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature:
No information found.

Flash Point:
No information found.

NFPA Rating:
CAS# 7732-18-5: Health- 0, Flammability- 0, Instability- 0
CAS# 64-19-7: Health- 3, Flammability- 2, Instability- 0
CAS# 631-61-8: Health- 2, Flammability- 0, Instability- 1.

Explosion Limits:
Lower: n/a Upper: n/a

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material such as sand, vermiculite, or diatomaceous earth, and transfer to a suitable container labeled for later disposal. May be neutralized with slaked lime, limestone, or sodium bicarbonate to a pH 7.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Do not ingest or inhale. Do not get in eyes, on skin, or on clothing.

Storage:

Store tightly capped in a cool, dry, well-ventilated area away from incompatible materials.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities using or storing this material should be equipped with an eyewash and safety shower. Provide local exhaust or general dilution ventilation to keep airborne levels below the permissible exposure limits.

Exposure Limits:

Chemical Name:	ACGIH	NIOSH	OSHA
Water	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Acetic acid	10 ppm TWA 15 ppm STEL	10 ppm TWA 25 mg/m3 TWA	10 ppm TWA 25 mg/m3 TWA
Ammonium acetate	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.

OSHA Vacated PELs:

Acetic acid: 10 ppm TWA; 25 mg/m3 TWA

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133. Do not wear contact lenses when working with chemicals.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134. Always use a NIOSH-approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State:	Clear liquid
Color:	Colorless
Odor:	Vinegar-like
pH:	No information found.
Vapor Pressure:	No information found.
Vapor Density:	No information found.
Evaporation Rate:	No information found.
Viscosity:	No information found.
Boiling Point:	No information found.
Freezing/Melting Point:	No information found.
Decomposition Temperature:	No information found.
Solubility in water:	Soluble.
Specific Gravity/Density:	No information found.
Molecular Formula:	No information found.
Molecular Weight:	No information found.

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials, exposure to heat or flames.

Incompatibilities with Other Materials:

Oxidizing materials, metals, bromine trifluoride, chlorine trifluoride, nitric acid, permanganates, peroxides, phosphorus, bromine pentafluoride, organics.

Hazardous Decomposition Products:

Oxides of nitrogen, oxides of carbon, ammonia.

Hazardous Polymerization:

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.
CAS# 64-19-7: AF1225000.
CAS# 631-61-8: AF3675000.

LD50/LC50:

CAS# 7732-18-5:
Oral, rat: LD50 = >90 mL/kg.

CAS# 64-19-7:
Inhalation, mouse: LC50 =5620 ppm/1H
Oral, rat: LD50 = 3310 mg/kg
Skin, rabbit: LD50 = 1060 mg/kg.

CAS# 631-61-8:
No information found.

Carcinogenicity:

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 64-19-7: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 631-61-8: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

Epidemiology:

No information found.

Teratogenicity:

No information found.

Reproductive:

No information found.

Mutagenicity:

Acetic acid is not mutagenic in the AMES Test.

Neurotoxicity:

No information found.

Section 12 - Ecological Information

No information found.

Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT

	LC10970	LC10985
Shipping Name:	Acetic acid solution	Not regulated
Hazard Class:	8	
UN Number:	UN2790	
Packing Group:	PG II	

Section 15 - Regulatory Information

US Federal

TSCA:

CAS# 7732-18-5 is listed on the TSCA Inventory.

CAS# 64-19-7 is listed on the TSCA Inventory.

CAS# 631-61-8 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ):

CAS# 64-19-7: final RQ = 5000 pounds (2270 kg)

CAS# 631-61-8: final RQ = 5000 pounds (2270 kg)

CERCLA/SARA Section 313:
None of the components are on this list.
OSHA - Highly Hazardous:
None of the components are on this list.

US State

State Right to Know:
Acetic acid can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.
Ammonium acetate can be found on the following state Right-to-Know lists: California, New Jersey, Pennsylvania, Massachusetts.
California Regulations:
None

European/International Regulations

Canadian DSL/NDSL:
CAS# 7732-18-5 is listed on Canada's DSL List.
CAS# 64-19-7 is listed on Canada's DSL List.
CAS# 631-61-8 is listed on Canada's DSL List.
Canada Ingredient Disclosure List:
CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.
CAS# 64-19-7 is listed on Canada's Ingredient Disclosure List.
CAS# 631-61-8 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: February 17, 1998
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