



SAFETY DATA SHEET

Loaded Stream (Anti-Freeze) Solution (Fire Extinguishing Agent, Pressurized and Non-pressurized)

1. IDENTIFICATION

Product Name	Loaded Stream (Anti-Freeze) Solution (Fire Extinguishing Agent, Pressurized and Non-pressurized)
Other Names	Potassium Acetate
Recommended use of the chemical and restrictions on use	
Identified uses	Fire Extinguishing Agent
Restrictions on use	Do not use on electrically energized equipment. Consult applicable fire protection codes.
Company Identification	Badger Fire Protection 8767 Seminole Trail, Suite 202 Ruckersville, VA 22968 USA
Customer Information Number	(434)-964-3200
Emergency Telephone Number	
CHEMTREC Number	(800) 424-9300 (703) 527-3887 (International)
Issue Date	November 23, 2016
Supersedes Date	October 1, 2015

Safety Data Sheet prepared in accordance with OSHA's Hazard Communication Standard (29 CFR 1910.1200) and the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

2. HAZARD IDENTIFICATION

This SDS covers the product listed above as sold in pressurized and non-pressurized containers. GHS classifications for both forms are listed below.

GHS Classification – Pressurized

Hazard Classification

Gas under pressure – Compressed gas

Label Elements

Hazard Symbols



Signal Word: Warning

Hazard Statements

Contents under pressure; may explode if heated.

Precautionary Statements

Prevention

None

Response

None



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2. HAZARD IDENTIFICATION

Storage

Protect from sunlight.
Store in well-ventilated place.

Disposal

None

GHS Classification: Non - pressurized

Hazard Classification

This product is classified as not hazardous in accordance with the Globally Harmonized System of Classification and Labelling (GHS).

Label Elements

Hazard Symbols

None

Signal Word: None

Hazard Statements

None

Precautionary Statements

Prevention

None

Response

None

Storage

None

Disposal

None

Other Hazards

Possible electrocution hazard if used on electrically energized equipment.

Specific Concentration Limits

The values listed below represent the percentages of ingredients of unknown toxicity.

Acute oral toxicity	0%
Acute dermal toxicity	0%
Acute inhalation toxicity	0%
Acute aquatic toxicity	0%

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

Component	CAS Number	Concentration
Potassium Acetate	127-08-2	35 - 45%
Water	7732-18-5	55 - 65%

Note: Pressurized product uses nitrogen or compressed air as the expellant.



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4. FIRST- AID MEASURES

Description of necessary first-aid measures

Eyes

Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

Skin

Wash skin thoroughly with soap and water. Obtain medical attention if irritation persists.

Ingestion

Dilute by drinking large quantities of water and obtain medical attention.

Inhalation

Move victim to fresh air. Obtain medical attention immediately for any breathing difficulty.

Most important symptoms/effects, acute and delayed

Aside from the information found under Description of necessary first aid measures (above) and Indication of immediate medical attention and special treatment needed, no additional symptoms and effects are anticipated.

Indication of immediate medical attention and special treatment needed

Notes to Physicians

Treat symptomatically.

5. FIRE - FIGHTING MEASURES

Suitable Extinguishing Media

This preparation is used as an extinguishing agent and therefore is not a problem when trying to control a fire. Use extinguishing agent appropriate to other materials involved. Keep pressurized containers and surroundings cool with water spray as they may rupture or burst in the heat of a fire.

Specific hazards arising from the chemical

Pressurized containers may explode in heat of fire.

Special Protective Actions for Fire-Fighters

Wear full protective clothing and self-contained breathing apparatus as appropriate for specific fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear appropriate protective clothing. Prevent skin and eye contact. Remove leaking container to a safe place. Ventilate the area.

Environmental Precautions

Prevent large quantities of the material from entering drains or watercourses.

Methods and materials for containment and cleaning up

Contain and absorb using appropriate inert material. Transfer into suitable containers for recovery or disposal.



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7. HANDLING AND STORAGE

Precautions for safe handling

Wear appropriate protective clothing. Prevent skin and eye contact.

Conditions for safe storage

Pressurized containers should be properly stored and secured to prevent falling or being knocked over. Do not drag, slide or roll pressurized containers. Do not drop pressurized containers or permit them to strike against each other. Never apply flame or localized heat directly to any part of the pressurized or plastic container. Store pressurized and plastic containers away from high heat sources. Storage area should be: - cool - dry - well ventilated - under cover - out of direct sunlight

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

Potassium Acetate

None

Appropriate engineering controls

Use with adequate ventilation. If this product is used in a pressurized system, there should be local procedures for the selection, training, inspection and maintenance of this equipment. When used in large volumes, use local exhaust ventilation.

Individual protection measures

Respiratory Protection

Not normally required. In oxygen deficient atmospheres, use a self contained breathing apparatus, as an air purifying respirator will not provide protection.

Skin Protection

Gloves

Eye/Face Protection

Chemical goggles or safety glasses with side shields.

Body Protection

Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Non- Pressurized

Appearance

Physical State	Liquid
Color	Clear
Odor	Odorless
Odor Threshold	Not applicable
pH	No data available
Specific Gravity	1.19-1.24
Boiling Range/Point (°C/F)	100/212
Melting Point (°C/F)	No data available
Flash Point (PMCC) (°C/F)	Not flammable
Vapor Pressure	Not applicable
Evaporation Rate (BuAc=1)	No data available



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9. PHYSICAL AND CHEMICAL PROPERTIES

Solubility in Water	Soluble
Vapor Density (Air = 1)	Not applicable
VOC (g/l)	None
VOC (%)	None
Partition coefficient (n-octanol/water)	No data available
Viscosity	No data available
Auto-ignition Temperature	Not applicable
Decomposition Temperature	Not applicable
Upper explosive limit	Not applicable
Lower explosive limit	Not applicable
Flammability (solid, gas)	Not applicable
Expellant - Nitrogen	
Appearance	
Physical State	Compressed gas
Color	Colorless
Odor	None
Odor Threshold	No data available
pH	Not applicable
Specific Gravity	0.075 lb/ft ³ @ 70°F as vapor
Boiling Range/Point (°C/F)	-196°C/-321 °F
Melting Point (°C/F)	No data available
Flash Point (PMCC) (°C/F)	Not flammable
Vapor Pressure	No data available
Evaporation Rate (BuAc=1)	No data available
Solubility in Water	No data available
Vapor Density (Air = 1)	Not applicable
VOC (g/l)	None
VOC (%)	None
Partition coefficient (n-octanol/water)	No data available
Viscosity	Not applicable
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Upper explosive limit	Not explosive
Lower explosive limit	Not explosive
Flammability (solid, gas)	Not flammable

10. STABILITY AND REACTIVITY

Reactivity

Pressurized containers may rupture or explode if exposed to heat.

Chemical Stability

Stable under normal conditions.



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10. STABILITY AND REACTIVITY

Possibility of hazardous reactions

Hazardous polymerization will not occur.

Conditions to Avoid

Exposure to direct sunlight - contact with incompatible materials

Incompatible Materials

Strong oxidizing agents - water reactive materials

Hazardous Decomposition Products

Oxides of carbon - potassium

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Potassium Acetate

Oral LD50 (Rat) 3250 mg/kg

Dermal LD50 (Rabbit) >20,000 mg/kg (analogous compound)

Inhalation LC50(rat) >5.6 mg/l (analogous compound)

Nitrogen

Simple asphyxiant

Specific Target Organ Toxicity (STOT) – single exposure

Potassium Acetate: No data available

Nitrogen: Exposure to nitrogen gas at high concentrations can cause suffocation by reducing oxygen available for breathing. Breathing very high concentrations can cause dizziness, shortness of breath, unconsciousness or asphyxiation.

Specific Target Organ Toxicity (STOT) – repeat exposure

Potassium Acetate: No data available

Serious Eye damage/Irritation

Potassium Acetate: Not irritating (rabbit)

Skin Corrosion/Irritation

Potassium Acetate Not irritating (rabbit)

Respiratory or Skin Sensitization

Potassium Acetate: Available data indicates this component is not expected to cause skin sensitization. No data available for respiratory sensitization.

Carcinogenicity

Not considered carcinogenic by NTP, IARC, and OSHA.

Germ Cell Mutagenicity

Potassium Acetate: Available data indicates this component is not expected to be mutagenic.

Reproductive Toxicity

Potassium Acetate: Available data indicates this component is not expected to cause reproductive toxicity or birth defects.



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11. TOXICOLOGICAL INFORMATION

Aspiration Hazard

Not an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Potassium Acetate:

LC50 Zebrafish 1497 mg/l 96h

EC50 Daphnia magna 420 mg/l 48h

EC50 Mann diatom 500 mg/l 72hr

Mobility in soil

No relevant studies identified.

Persistence/Degradability

No relevant studies identified.

Bioaccumulative Potential

No relevant studies identified.

Other adverse effects

No relevant studies identified.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of container in accordance with all applicable local and national regulations.

14. TRANSPORT INFORMATION

Safety Data Sheet information is intended to address a specific material and not various forms or states of containment.

Special Precautions for Shipping:

Individuals must be certified as Hazardous Material Shipper for all transportation modes.

Pressurized Fire Extinguishers are considered a hazardous material by the US Department of Transportation and Transport Canada.

DOT CFR 172.101 Data	Fire extinguishers, 2.2, UN1044
UN Proper Shipping Name	Fire extinguishers
UN Class	(2.2)
UN Number	UN1044
UN Packaging Group	Not applicable
Classification for AIR Transportation (IATA)	Consult current IATA Regulations prior to shipping by air.
Classification for Water Transport IMDG	Consult current IMDG Regulations prior to shipping by water.



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14. TRANSPORT INFORMATION

When shipping via ground, portable fire extinguishers pressurized to less than 241 psi and of less than 1100 cubic inches in size meet the requirements of "Limited Quantity" as referenced in 49 CFR 173.309 (2010). There is no limited quantity designation for fire extinguishers when shipped by air or water.

This section is believed to be accurate at the time of preparation. It is not intended to be a complete statement or summary of the applicable laws, rules, or hazardous material regulations, and is subject to change. Users have the responsibility to confirm compliance with all laws, rules, and hazardous material regulations in effect at the time of shipping.

15. REGULATORY INFORMATION

United States TSCA Inventory

This product contains ingredients that are listed on or exempt from listing on the EPA Toxic Substance Control Act Chemical Substance Inventory.

Canada DSL Inventory

All ingredients in this product are listed on the Domestic Substance List (DSL) or the Non-Domestic Substance List (NDSL) or are exempt from listing.

SARA Title III Sect. 311/312 Categorization: Pressurized

Pressure hazard

SARA Title III Sect. 311/312 Categorization: Non-pressurized

None

SARA Title III Sect. 313

This product does not contain any chemicals that are listed in Section 313 at or above de minimis concentrations.

16. OTHER INFORMATION

NFPA Ratings

NFPA Code for Health - 1

NFPA Code for Flammability - 0

NFPA Code for Reactivity - 0

NFPA Code for Special Hazards - None

HMIS Ratings

HMIS Code for Health - 1

HMIS Code for Flammability - 0

HMIS Code for Physical Hazard - 0

HMIS Code for Personal Protection - See Section 8

*Chronic

Legend

ACGIH: American Conference of Governmental Industrial Hygienists

CAS#: Chemical Abstracts Service Number

EC50: Effect Concentration 50%

IARC: International Agency for Research on Cancer

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%



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16. OTHER INFORMATION

N/A: Denotes no applicable information found or available
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
STEL: Short Term Exposure Limit
TLV: Threshold Limit Value
TSCA: Toxic Substance Control Act

Revision Date: November 23, 2016
Replaces: October 1, 2015
Changes made: Update to company address.

Information Source and References

This SDS is prepared by Hazard Communication Specialists based on information provided by internal company references.

Prepared By: EnviroNet LLC.

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