



SAFETY DATA SHEET

1. Product and Manufacturer Identification

Product identifier: X-Tinguish- Condensed Aerosol Generators

Manufacturer: Flame Guard USA 1000 Butterfield Road Ste 1029 Vernon Hills, IL 60061 USA

24 Hour Emergency Contact: CHEMTEL **Emergency phone: 1-888-255-3924**

Intl. Customers: +01-813-248-0585 Collect Calls are accepted /Contract: MIS5352878

Recommended use: Fire Suppression Agent

Restrictions of use: On Contact with hot surfaces potassium nitrate decomposes forming nitrogen oxides and oxygen, which increase fire danger.

2. HAZARD IDENTIFICATION Flammable Solids, 4.1

Possible exposure to aerosol suppression agent if generator is activated. May cause temporary, mild irritation of mucous membrane if inhaled.

3. COMPOSITION/INFORMATION ON INGREDIENTS.

Components – Chemical (Hazardous Components ≥ 1%)	CAS#	EINECS #	% of each	Comments
Potassium Nitrate: KNO3	7757-79-1	231-818-8	75%	Components are blended and pressed into a highly stable, molded form. Molded composition is contained within a sealed double-walled stainless-steel housing – no environmental exposure.
Epoxy Resin Polymer. BISPHENOL A DIGLYCIDYL ETHER RESIN	25068-38-6	25068-38-6	23%	Upon unit activation these chemical elements are not discharged from the unit but are fully consumed by a thermal reaction.
Magnesium.	7439-95-4.	231-104-6	2%	
Appearance & Odor:				Beige to white in color. No odor.
Auto-Ignition Temperature:				≥350°C
Solubility in Water:				Slightly Soluble

4. FIRST AID MEASURES

Contact Method:	Procedure:
Inhalation	Remove to fresh air
Eye Contact	Flush with water
Skin Contact	Wash with soap and water.
Ingestion	Not a likely route of exposure.

Seek medical attention for further treatment, observation, and support if necessary.

5. FIRE FIGHTING MEASURES

In the event of a fire, evacuate the area and inform emergency services. Ignition produces a fire-suppression aerosol. Water may be used as an additional suppression agent.

6. ACCIDENTAL RELEASE MEASURES

If these devices are spilled, they can be safely recovered by hand and should be inspected for damage prior to repacking. Suspect or damaged articles should be labeled and consigned for correct destruction.

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7. HANDLING AND STORAGE

Store in temperate conditions. Avoid shock, electric currents, static discharge, excessive heat and extended periods of storage at temperatures greater than 65°C.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Occupational Exposure Controls

Respiratory Protection	Ventilate area completely after discharge. Do not enter area prior to complete venting of enclosure. Mechanical ventilation is preferred. Dust mask where dustiness is prevalent, or TLV is exceeded. Use of mechanical filter respirator if exposure is prolonged.
Hand Protection	Wear gloves if handling generators prior to cooling. Use chemical resistant gloves when handling the preparation
Eye Protection	Safety glasses are advisable. Chemical goggles recommended as mechanical barrier for prolonged exposure
Skin Protection	N/A

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Odor: pH: Boiling point/boiling range: Flash point: None. Flammability (solid/gas): Explosive properties: Vapor pressure: Relative density (Water = 1): Solubility: -Water solubility: -Fat solubility: Partition coefficient, n-octanol/water: Viscosity: Not applicable. Vapor density (Air = 1): Evaporation rate (Butyl Acetate = 1 Auto-ignition temperature	White to Light grey None Not applicable. Not applicable. Not Flammable Not Explosive Not applicable. Not applicable. Partially soluble Not soluble Not determined Not applicable. Not applicable. Does not auto-ignite
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10. STABILITY AND REACTIVITY

These devices are extremely stable below 125°C. They should be protected from fire, sources of electrical power, shock, and high temperatures.

Conditions to Avoid

On Contact with hot surfaces potassium nitrate decomposes forming nitrogen oxides and oxygen, which increase fire danger.

Materials to Avoid

Potassium nitrate reacts at high temperatures with combustible and reducing materials. Reacts violently with aluminum, aluminum oxide, and acetic anhydride causing fire hazard.

Hazardous Decomposition Products

Hazardous polymerization will NOT occur.

Combustion or decomposition products may include NOX, K₂O, CO.

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11. TOXICOLOGICAL INFORMATION

The toxicity of the product mixture has not been determined.

Components:

Potassium Nitrate

Toxicity Data: Oral LD50 (rat) 3750 mg/kg.

Target Organs: Blood, central nervous system

Magnesium

Toxicity Data: Oral LDLO (dog) 230 mg/kg.

Target Organs: Central nervous system, liver, and kidneys.

Epoxy Resin Polymer

Irritation Data: Skin (guinea pig) 2750 mg/55 days Inert.

Eye (rabbit) 100 mg Mild.

Toxicity Data: Oral LD50 (rat) 11.4 g/kg.

Toxic by-products of combustion are extremely low. Main by-products are listed below with 15-minute TWA values for a maximum 100g/m³ concentration in a hermetically sealed volume.

Gas	15-minute Time Weighted Average in parts per million
NO ₂	1.08
NO	0.97
CO	84.20

12. ECOLOGICAL INFORMATION

These devices are sealed and present no ecological hazards.

Components: Potassium Nitrate

Fish Poecilia reticulata LC50 (24 hr.) 1927 mg/L.

Fish Poecilia reticulata LC50 (96 hr.) 1378 mg/L.

Crustacea Daphnia magna TLm (24 hr.) 490 mg/L.

Mobility: Not determined.

Persistence and Degradability: Not determined.

Bio accumulative Potential: Not determined.

Other Adverse Effects

Ozone depletion potential: None.

Photochemical ozone creation potential: None.

Global warming potential: None

13. DISPOSAL CONSIDERATIONS

This preparation, if spilled, is a hazardous waste. It is a flammable solid.

Keep from entering surface water. (See heading 12)

Dispose of in compliance with national, regional, and local provisions that may be in-force.

Comply with all local, state, and federal/international regulation

14. TRANSPORT INFORMATION

UN Number: 3178	Shipping Limitations:	
UN Classification: 4.1 Flammable solid, inorganic, n.o.s. (fire suppressant containing potassium nitrate)	Cargo Air	Max single packaging – 100 kg.
Packaging Group: III	Passenger Air	Max single packaging – 25 kg.

Division 4.1 articles present no significant hazard as packaged for Ground transport.

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15. REGULATORY INFORMATION

S15	Keep away from heat
S33	Take precautionary measures against risk of static discharge
S35	This material and its container must be disposed of in a safe way
S38	In case of insufficient ventilation wear suitable respiratory equipment
S39	Wear eye/face protection

16. OTHER INFORMATION

Comply with manufacturer's installation and maintenance procedures.