

Safety Data Sheet

According to Regulation (EC) No 1907/2006 (REACH)

(Reported information in those parts that are applicable to the scope of the regulation)



Trade name: SALGROM-X
Document number: SRT-MSDS-SRX-EN-V1

Version: 1.0 / EN Page 1 (5)

Revision date: 19. February 2023

SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

1.1 Product Identification

Trade Name: Salgrom-X® Fire Systems
Model Series: Thermally, Manually and Electrically operated units
(Models sizes from 30 to 2500 g)

1.2 Relevant Identified Uses of the Substance / Mixture / Product

Description / Intended Uses: Condensed aerosol fire suppression system for professional and special risk applications. * See section 2.1.

1.3 Safety Data Sheet Supplier Details

Importer in the EU: Salgrom Technologies, Inc.
Company Address: Vihikari 10
Postal Code, City and Country: 90440 Kempele, FINLAND
Internet: www.salgrom.com
E-mail: info@salgrom.com
Business ID (VAT/Tax): 2408755-0 (FI24087550)

1.4 Emergency Telephone Number

112 (Europe) * See your country specific emergency contact(s).

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

Fire extinguishing agent (fire suppressant) and solid compound forming the actual fire suppressant.

2.2 Label Elements and Hazard and Precautionary Phrases

H332: Harmful if inhaled (*the end product)
H302: Harmful if swallowed.
H335: May cause respiratory irritation (*the end product)

P210: Keep away from sources of ignition.
P201: Obtain special instructions before use.
P102: Keep out of the reach of children.
P402: Store in a dry place



2.3 Other Hazards

* See sections 10 and 11.

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SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Main Ingredient (75%)	Potassium Nitrate (KNO ₃)	CAS-Number	7757-79-1
Technical Admixture (16.5%)	Dicyndiamide (DCDA)	CAS-Number	461-58-5
Technical Admixture (8.5%)	Phenol-Formaldehyde Resin	CAS-Number	9003-35-4

* This product contains ingredients that are listed on or exempt from listing on the EPA Toxic Substance Control Act Chemical Substance Inventory. All ingredients in this product have not been verified for EINECS listing or the European List of New Chemical Substances (ELINCS).

3.2 Description / Name of the Composition

Stabilized Aerosol Extinguishing Chemical (Solid Compound Mixture)

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures

Remove person(s) to fresh air. If not breathing, apply artificial respiration. Oxygen may be given, but only under supervision of a trained medical person. Transport to hospital or doctor if necessary.

4.2 Most Important Symptoms and Effects

Mild irritation on mucous membranes and respiratory track. On prolonged exposure, headache, nausea, restlessness with dry cough and shortness of breath, delayed reactions.

Prolonged exposure for high aerosol concentrations could be life threatening.

Low risk exposure time for 100 g/m³ agent concentration is averagely 15 minutes.

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

Take measures usual for the inhalation of carbon monoxide and nitrogen oxides.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

All known extinguishing substances can be used. Aerosol is extinguishant in itself.

5.2 Special Hazards Arising from the Substance or Mixture

Inhalation of gaseous extinguishing aerosol formed by the discharge.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

If exposure to extinguishing discharging aerosol is possible, the people should always be evacuated as quickly as possible. Ventilate the rooms, areas, and zones where agent may have been entered.

6.2 Environmental Precautions

No environmental precautions or measures required.

6.3 Methods and Material for Containment and Clean-Up

No necessary measures required. Possible remains and debris of fire extinguishing aerosol can be removed by airflow, ventilating, vacuuming or by traditional cleaning methods.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Keep away from ignition sources. No smoking. No other handling measures or precautions.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Store in air-conditioned warehouse, away from heaters and sunlight.
Storage temperature -40...+54°C.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

If it's necessary to enter in aerosol filled space, wear safety goggles and respiratory mask or other appropriate protective equipment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Appearance	Solid and odourless beige chemical compound inside the sealed casing
PH	12 - 13
Flash Point	500°C
Relative Density	1.65-1.85g/cm ³
Auto-Ignition Temperature	300°C
Specific Heat Capacity	20°C: 1,23 kJ/kg K
Water Solubility	Slightly Soluble
Aerosol Suspension Time	>60min. if not ventilated
Conditions under Storage	< 95% @+54°C / - 40°C to + 54°C
Shelf Life	15+ Years

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SECTION 10: STABILITY AND REACTIVITY

10.1 Conditions to Avoid

Heat, flames, and sparks. Very high temperatures and direct sunlight. Fire extinguishing aerosol is not recommended without preliminary testing for extinguishing fires which are due to certain chemicals or mixtures of chemicals, such as cellulose nitrate, reactive metals such as sodium, potassium, magnesium, titanium, zirconium, uranium, plutonium, metal hybrids, metal amides, certain organic peroxides and hydrazine, white phosphorus, organometallic compounds, or fluorine.

10.2 Hazardous Decomposition Products / Composition of Extinguishing Aerosol (Actual End Product)

Extinguishing aerosol harmful by-products vary depending on the released quantity of agent and the application density (design factor). In addition, a number of different variables and prevailing conditions in each case have effect on the final levels of solids and gases remaining in the protected atmosphere, which is why one specific concentration, or the threshold limit cannot be indicated.

Salgrom -X Aerosol Physical Properties and Average Values @ 100 gram/m3 Concentration:

Gas Products (ppm)	15 minutes TWA*	20 minutes TWA*	NIOSH / IDLH
NO ₂	1.08	9.90	20.00
NO	0.97	50.10	100.00
NO _x = NO + NO ₂	2.05	60.00	120.00
CO	84.20	445.00	1,200.00
CO ₂	756.00	40,000.00	40,000.00
NH ₃	58.30	151.50	300.00
Solid Particulate:		Percent:	
K ₂ CO ₃		55.2 %	
KHCO ₃		8.2 %	
KNO ₂		7.9 %	
Other Potassium Compounds		5.5 %	
NH ₄ HCO ₃		23.2 %	
pH in solution = 8.6			
Particle Size Distribution:		Percent:	
< 1µm		3 %	
< 2µm		76 %	
< 5µm		97 %	
> 5µm		3 %	

* TWA = Time Weighted Average

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

Skin Corrosion / Irritation

Not likely unless over-sensitivity diagnosed.

Eye Damage / Irritation

Mild irritation of mucous membranes.

Respiratory / Irritation

May cause irritation of upper respiratory track.

Acute Toxicity

Low acute toxicity.

Other Information

Health effects are different for the solid aerosol-generating composition itself and for the fire extinguishing aerosol - the product resulting of combustion of the aerosol-generating composition.
No oxygen depletion.

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SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Non-toxic and non-harmless to the environment and climate. No stated environmental impact.
ODP=0 (no effect to ozone layer) GWP=0 (no effect to global warming)
ALT=0 / Negligible (no atmospheric lifetime)

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Used material(s) can be recycled normally - no special methods are required. Out-dated or unused extinguishing units shall be disposed according to local/national hazardous waste regulations.

SECTION 14: PACKING AND SHIPPING INFORMATION

14.1 General

UN Number and Shipping Name: UN3268 Safety Devices 9 DOT-SP 20600	Authorized Modes of Transport: Motor Vehicle, Rail, Cargo Vessel, Cargo Aircraft
UN Classification: Class 9, Safety Devices US DOT PHMSA Special Permit DOT-SP 20600 (FOURTH REVISION), Dated July 3, 2019 Bundesanstalt für Materialforschung und – Prüfung (BAM) Notice D/BAM-1857/19	Shipping Limitations: Cargo Aircraft: Max single packaging – 100 kg. ADR / RID / IMDG – Code / Special Provision 280 IATA-DGR / Special Provision A115 ICAO-TI
US DOT PHMSA Special Permit DOT-SP 20600 modes of transport authorized: motor vehicle, rail, cargo vessel, and cargo- aircraft only. A person who is not holder of this special permit but receives a fire suppression device covered by this special permit, may reoffer it for transportation provided no modification or change is made to the fire suppression device and it is offered for transportation in conformance with this special permit and the Hazardous Materials Regulations.	

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations or Legislation Specific for the Product

BS EN 481:1993 & BS EN 451:1993.
CoSHH Supportive Documents EH40/98 & EH44 and MDHS 14/2

SECTION 16: ADDITIONAL INFORMATION

16.1 Source and Document Use

Salgrom Technologies and Fireaway Inc. – Copying for internal and regulatory use only.

16.2 Restrictions on Marketing and Export

None (Refer to any other national measures that may be relevant)
No known customs restrictions. Customs Tariff Code: **8424100000**

16.3 Disclaimer

* The information contained herein is based on data believed to be accurate. However, no representation, warranty, or guarantee is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for its own particular application, use and/or purpose. Salgrom assumes no responsibility for personal injury or property damage resulting from use, handling or from contact with this product.