Registered Trademark ISTO-1

1 Identification of substance / contact data

1.1. Trade name: Fire extinguishing powder ISTO-1

Use of the substance / mixture: non-toxic chemical powder for all types of fire extinguishers.

1.2. Producer:

Name der Firma (Hersteller): Sapfir Ltd.

Firmenadresse: Zahradna 19, 900 24 Veľký Biel, Slovakia

Telefon: +421245916247 Fax: +421245916247

1.3 Importeur Identifikation:

Name of the company:

Address:

Zahradna 19, 900 24 Veľký Biel, Slovakia
Telephon

+421245916247

Fax: +421245916247

2. Hazard analysis

2.1 Classification of the substance or mixture

Classification according to Directive 67/548 / EEC or Directive 1999/45 / EC: Void Classification system: Classification according to national and EU chemicals legislation (see chapter 15).

Further information: Although the product is not classified as dangerous, there may be signs of danger (see chapter 9-12).

If sprayed into the fire area at higher concentrations, it may cause eye and respiratory tract irritation.

2.2 Label components

Labeling according to EC directives: The product is not classified according to the directive / regulation on dangerous substances and preparations.

Special labeling: Safety data sheet available on request for professional users. 2.3 Other hazards

PBT: According to the available information, the mixture of the powder does not meet the criteria of a PBT (persistent, bioaccumulative and toxic) according to Annex XIII of Regulation No 1907/2006.

vPvB: According to the available information, the mixture of the powder does not meet the criteria as vPvB (very persistent and very bioaccumulative) according to Annex. XIII of Regulation No 1907/2006.

3. Composition / information on ingredients

3.2 Chemical characterization:

Description: A mixture of non-toxic inorganic salts.

Chemical Componants :		
CAS: 7783-20-2	Ammoniumsulfat	Xi R36,37,38
EINECS: 231-984-1		Eye Irrit. 2, H319;
CAS: 7722-76-1	Amofos	Xi R36,37,38
EINECS: 231-764-5		Eye Irrit. 2, H319;

Further information: for more complex risk records (for example, R phrases and H phrases), see section 16

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4. First aid instructions

4.1 Description First aid

General information:

Remove soiled clothing. In case of uncertainty, or any

Symptoms seek medical advice and show the manufacturer's label.

Meet safety precautions. Information for the doctor: the treatment is symptomatic.

After inhalation: immediately give the person to the fresh air. at

Unconsciousness requires the person to be placed in a stable position. If necessary or if symptoms occur, consult a physician.

Skin contact: Wash affected skin with soap and water

Protective or cosmetic cream. Do not use solvents.

If skin irritation or other symptoms occur, consult a specialist.

After eye contact: open eyelids wide, if necessary contact lenses

Remove. Rinse the affected eye thoroughly with running water for 15 minutes

Minutes. Possibly. consult an ophthalmologist.

After swallowing: Rinse mouth with water, drink plenty of water, do not induce vomiting required. Keep affected person warm and quiet. Immediately get a doctor for inspection.

4.2 The main symptoms and effects, both acute and delayed: there is no other relevant information (for more, see Chapter 2 and 11).

4.3 The use of any immediate medical attention and special treatment will depend on the individual symptoms (see info above).

Procedure for Fire Fighting

- 5.1 Suitable extinguishing media: Water mist, water spray jet. Unsuitable extinguishing media: strong water jet.
- 5.2 Special hazards arising from the substance or mixture:

when heated in a fire, harmful gases and vapors can be generated.

Inhalation of hazardous decomposition products of combustion can lead to injuries to lead

Carbon dioxide (CO₂), carbon monoxide (CO).

5.3 Advice for protective equipment for firefighters:

independent ventilation and chemical protection clothing and appropriate Use breathing apparatus. Protective equipment will depend on the size of the fire selected.

Further information:

Objects in closed containers, located near fire can be cooled with water. If possible, items in

undamaged packaging from the danger zone. contaminated

Water for fire-fighting the fire must be separately collected temporarily

and do not enter the sewerage system. Together with conventional

Fire extinguishers used in fire extinguishers are to be used in accordance with the relevant regulations

(Waste disposal legislation, see chapter 15).

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6. Accidental release procedure

6.1 Personal precautions, protective equipment and emergency procedures for nonemergency personnel:

follow the instructions given in paragraphs 7 and 8. Avoid contact with eyes, skin and clothing. Do not breathe dust. Ensure that the environment is sufficiently ventilated and ventilated. Use a breathing mask under the influence of smoke. Unauthorized persons may enter.

Emergency personnel must carry appropriate personal protective equipment (see chapter 5).

6.2 Precautions for the environment:

Avoid spreading the spills. Material should not penetrate sewers, surfaces, ground water and soil. In the case of pollution of rivers, lakes or sewers, local regulations (water legislation, see chapter 15). Consult the competent authorities.

6.3 Methods and materials for cleaning and cleaning:

Spills must be collected mechanically and placed in suitable containers. A different method of disposal is subject to the requirements of paragraph 13, see section 8. Affected sites and tools used must be thoroughly washed with a suitable detergent, do not use solvents.

6.4 Reference to other sections: See Section 7 for information on personal protective equipment and equipment. See Section 8 for information on personal protection equipment and equipment. See Section 13 for disposal information.

7. Handling and storage

7.1 Precautions for safe handling:

before use, you must be familiar with the contents of paragraphs 2, 6, 8 and 11. Observe the health and safety rules for the handling of chemicals. Avoid dust. Keep product away from open flames and sources of high temperature or fumes. Observe the guidelines and instructions for use on the label of the product.

Do not eat, drink or smoke. Wash hands and place contaminated work clothes before breaks and after work. The clothing must be stored separately.

Information on protection against explosions and fires: no special measures.

7.2 Conditions for safe storage, including any storage problems: Requirements to be met by storerooms and containers: Do not store above 50 $^{\circ}$ C in dry, well-ventilated storage areas, away from sources of fire.

Keep away from food.

Further information about storage conditions: none

7.3 Specific end use: Use of the product by the manufacturer's instructions for use, indicated on the packaging or accompanying documents.

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Personal Protective procedure

8.1 Control parameters Exposure limit values for chemical substances in the atmosphere at work according to EU legislation:

Dust - general value for the solid aerosol (NPELc) Median value of the total exposure (a) the fixed aerosol limit: 10.0 mg / m3

8.2 Control of general safety and hygiene measures:

appropriate technical controls: the usual precautions for handling with chemicals.

Individual protection measures, for example, personal protective equipment are not normally required. In case of insufficient ventilation, or if the formation of dust exceeds the permissible limits, use a suitable respiratory mask with filter against solid aerosols. Hand / Skin Protection: Protective gloves (EN 374). Glove material Rubber gloves (EN 374).

Eye / face protection: Use close-fitting protective goggles with side protection (EN 166). Other: Protective work clothing, if necessary. Safety shoes.

Thermal hazards: Not applicable.

Environmental exposure controls Keep container tightly closed during and after work. The packages must be stable. Secure the unsecured packages against tipping over. Clean contaminated packaging of contaminants.

9. Physical and chemical characteristics

9.1 Information on basic physical and chemical properties General information :			
Condition of matter:	Solid powder		
Color:	Fine powder, color white to dark gray, cream color is allowed		
pH:	Not applicable		
Flammability (solid, gaseous):	Not specified		
Flash Point :	Not specified		
Ignition:	Not applicable		
Explosive properties:	Not determined		
Amount of ammonium phosphate,%	Not specified		
Amount of ammonium Sulphate,%	25 ÷ 90		
Amount of substances / substances which are soluble in hydrochloric acid%	0 ÷ 75		
Huminity %	0 ÷ 15		
Powder flow, kg/s	≤ 0.35		
Breakdown voltagein kV	≥ 0.28		

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10. Stability and reactivity

- 10.1 Reactivity: No further relevant information available.
- 10.2 Chemical stability:

the conditions under which the product is stable:

when observing the rules of storage and use, the product is stable (see chapter 7). Avoid excessive heating from different heat sources.

- 10.3 Possibility of hazardous reactions: strong oxidizing agents.
- 10.4 Conditions to Avoid: There is no further relevant information.
- 10.5 Incompatible materials: see section "Possibility of hazardous reactions".
- 10.6 Hazardous decomposition products: Hazardous decomposition products (see chapter 5) may occur at high temperatures.

11. Toxicological information

11.1 Information on toxicological effects

Akute Toxitität:

Relative values LD / LC50 for the classification: (LD 50 = mean lethal dose LC 50 = mean lethal concentration):			
7783-20-2 Ammonium Sulphate			
Oral	LD50	2840 mg/kg rat	
7722-76-1 Amofos			
Oral	LD50	2000 mg/kg rat	

Primary inflammatory effect:

on the skin: based on available data, the criteria for the classification are met.

The product may cause temporary mechanical irritation.

For the eyes: based on available data, the criteria for the classification are met.

The product may cause mechanical temporary irritation.

Sensitization: No sensitizing effects known based on available information.

Inhalation exposure: based on available data, the criteria for the classification are met. Inhalation may cause irritation to the respiratory tract.

Ingestion: Based on available data, the criteria for classification are met.

Additional toxicological information: The product is not classified according to the calculation method of the general EC Classification Guidelines for Substances as published in the latest version.

When used correctly, there is no adverse effect in our experience and in the use of the product.

The product has not been tested.

CMR effects (carcinogenicity, mutagenicity, reproduction toxicity): not specified for the product. Components of the mixture are not carcinogenic, mutagenic or teratogenic.

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12. Ecological information

12.1 Toxicity

aquatic toxicity: There is no further relevant information.

12.2. Persistence and degradability: No further relevant information.

12.3 bioaccumulative potential (BCF): There is no further relevant information.

12.4 Mobility: No relevant information available.

Additional ecological information:

general information: the product is not classified as dangerous for the environment.

12.5 Results of PBT and vPvB

PBT: Not applicable vPvB: Not applicable

12.6 Other adverse effects: There is no further relevant information.

13. Waste Information

13.1 Waste treatment methods

Recommendation: Small quantities can be disposed of with household waste.

List of waste with an asterisk (*) indicates hazardous waste (H), the number without asterisks indicates non-hazardous waste, so-called other (O).

16 03 06 organic wastes other than those referred to in 16 03 05 contaminated packagings: Recommendation: Dispose of as hazardous (O) waste according to the law for waste.

14. Transport Informationen

14.1 UN-Number: ADR, IMDG, IATA	void
14.2 UN proper shipping name : ADR, IMDG, IATA	void
14.3 Dangerous Goods classification: ADR, IMDG, IATA	void
14.4 Packing group: ADR, IMDG, IATA	void
14.5 Environmental Considerations: Pollution in shipping:	none No
14.6 Special precautions for users	none
14.7 Transport loose in connection with Annex II of MARPOL 73/78 and the IBC Code	void
Transport / Additional Information:	*

^{*} The product is not classified as dangerous in the sense of transport regulations.

15. Regulatory information

15.1 Regulations / legislation specific to the substance or mixture with regard to safety, health and environment

Tactile warning Danger to people with visual impairment and the blind: Not mentioned on the packaging.

Safety / child-resistant closures, Packaging: Not mentioned on the packaging. Legislation:

Regulation (EC) No 1272/2008 on the classification, labeling and packaging of substances and mixtures (CLP), by amending and repealing Directives 67/548 / EEC and 1999/45 / EC amending and amending Regulation (EC) 1907/2006

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Regulation of the European Parliament and Regulation (EC) No.1907 / 2006 REACH, as amended.

Directive 1999/45 / EC of the European Parliament and of the Council on the approximation of laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labeling of dangerous preparations.

Law No.67 / 2010 S.g. the conditions according to chemical substances and mixtures and the modification and addition of certain actions (D).

At the time of publication. 3/2010, the general requirements for the classification, labeling and packaging of dangerous substances and mixtures.

Law No.355 / 2007 S.g. protection, support and development of public health and amending certain laws.

NV No. 355/2006, S.g. Worker protection combined with the risk of exposure to chemical factors at work as NV SR No. 300/2007 Coll Recht No.223 / 2001 S.g. Waste water in z.n.z. As the Decree No.284 / 2001, p. Catalog of waste, eg.

The Law No.364 / 2004 S.g. Water and its Regulatory Decree No. 100/2005 Coll. 124/2006 pg. OSH.

MV SR Decree No. 96/2004 S.g. the principles of fire protection when handling and storing flammable liquids, heavy oils and vegetables as well as animal fats and oils.

ADR - European Agreement concerning the International Carriage of Dangerous Goods, Rules on the International Carriage of Dangerous Goods and Materials IATA / ICAO Code - International Regulations on Air Transport

Dangerous goods IMDG-Code - Regulations for the transport of dangerous goods by sea 15.2 Substance safety assessment: A substance safety assessment has not been carried out.