

FIRECHIEF FLAME RETARDANT SPRAY

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Section 1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name: FLAME RETARDANT SPRAY
Product code: FRS1 111-1030 / FRS2 111-1032

1.2 Relevant identified uses of the substance or mixture

Fire extinguishing agent

1.3 Details of the supplier of the safety data sheet

Company name: Firechief Global
3 Lands End Way
OAKHAM Rutland
LE15 6RB
Emails address: sales@firechiefglobal.com
Emergency telephone number
Emergency tel: +44 (0)330 999 0019 (office hours 08:00 - 17:00)

Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Not classified as a hazardous substance or mixture in accordance to Regulation (EC) No. 1907/2006 as amended from time to time.

2.2 Label elements:

None

Section 3. Composition/information on ingredients

3.1 Substances

Not applicable.

3.2 Mixtures

None of the chemicals in this product are hazardous according to Regulation 1272/2008 (CLP).

Section 4. First aid measures

4.1 Description of first aid measures

Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell or are concerned.

Eye Contact

If irritation occurs, cautiously rinse eyes with lukewarm, gently flowing water for 5 minutes, while holding the eyelids open. If eye irritation persists: Get medical advice/attention.

Skin Contact

Rinse/wash with lukewarm, gently flowing water and mild soap for 5 minutes or until product is removed. If skin irritation occurs or you feel unwell: Get medical advice/attention.

Ingestion

Rinse mouth. If you feel unwell/If concerned: Get medical advice/attention. Most important symptoms and effects, both acute and delayed

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

Treat according to symptoms (decontamination, vital functions), no known specific antidote. Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient.

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Section 5. Fire-fighting measures

5.1 Extinguishing media

Product is extinguishing agent. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Suitable Extinguishing Media

None. Material is an extinguishing agent and will not burn. In case of surrounding fire use extinguishing media suitable for surrounding fire.

Unsuitable Extinguishing Media

None. Do not use water jet.

5.2 Specific hazards in case of fire

Decomposition products may include carbon oxides. Dense smoke may be generated while burning.

5.3 Advice for fire-fighters

Fire-fighting Procedures

Material will not burn. Move undamaged containers from immediate hazard area if it can be done safely. As for surrounding fire water spray is recommended to cool or protect exposed materials or structures. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Actions

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Emergency Procedure

Isolate hazard area and keep unauthorized personnel away. Do not touch or walk through spilled material. Ventilate closed spaces before entering.

Personal Precautions

Avoid breathing vapor or mist. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

Recommended Equipment

See section 8 for specifics on protective personal equipment (PPE).

6.2 Environmental precautions

Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

6.3 Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

6.4 Reference to other sections

See section 8 for specifics on protective personal equipment (PPE). Concerning disposal elimination after cleaning, see section 13.

Section 7. Handling and storage

7.1 Precautions for safe handling

Avoid breathing vapor or mist. Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time).

Take any precaution to avoid mixing with Incompatible materials, Refer to Section 10 on Incompatible Materials. Avoid release to the environment. Avoid contact with skin, eye or clothing. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. Use good personal hygiene practices. Wash hands after use.

7.2 Conditions for safe storage, including any incompatibilities

Storage Room Requirements

Store in cool, dry, well-ventilated areas away from heat, direct sunlight and strong oxidizers. Keep container(s) tightly closed and properly labeled. Containers that have been opened must be carefully resealed to prevent leakage.

Ventilation Requirements

Report ventilation failures immediately. Use only with adequate ventilation to control air contaminants to their exposure limits.

7.3 Specific end use(s)

No data available.



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Section 8. Exposure controls/personal protection

8.1 Control parameters

Chemical Name	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)	ACGIH Carcinogen	IOELV TWA (ppm)	IOELV TWA (mg/m3)	IOELV STEL (ppm)
AMMONIUM PHOSPHATE								
POLYPHOSPHORIC ACIDS, AMMONIUM SALTS								
CARBAMIDE								

Chemical Name	IOELV STEL (mg/m3)	IOELV Notations	IOELV Directive	DNEL_Inh_Local (mg)	DNEL_Inh_Systemic (mg)	FR_ED984_VL EP - France, ED 984, Des Valeure limites d'exposition professionnelle	FR_ED984_VL EP_mg_m3 - France, ED 984, Des Valeure limites d'exposition professionnelle miligram per cubic meter	FR_ED984_VL CT_or_VLE_15 min_ppm - France, ED 984, Des Valeure limites court terme (VLCT) ou Valeure limites d'exposition (VLE) 15 minute, ppm
AMMONIUM PHOSPHATE					5.9			
POLYPHOSPHORIC ACIDS, AMMONIUM SALTS					18.06			
CARBAMIDE					292			

Chemical Name	FR_ED984_VL CT_or_VLE_15 min_mg_m3 - France, ED 984, Des Valeure limites court terme (VLCT) ou Valeure limites d'exposition (VLE) 15 minute, mg/m3	FR_ED984_VL CT_or_VLE_5 min_ppm - France, ED 984, Des Valeure limites court terme (VLCT) ou Valeure limites d'exposition (VLE) 15 minute, ppm	FR_ED984_VL CT_or_VLE_5 min_mg_m3 - France, ED 984, Des Valeure limites court terme (VLCT) ou Valeure limites d'exposition (VLE) 5 minute, mg/m3	FR_TMP - France, ED 984, Tableaux des maladies professionnelles	FR_ED984_Observation_Santé - France, ED 984, Observation des effet sur la santé	DNEL_Carcinogenic	ACGIH TLV Basis	ACGIH Notations
AMMONIUM PHOSPHATE								
POLYPHOSPHORIC ACIDS, AMMONIUM SALTS								
CARBAMIDE								

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8.2 Exposure Controls

Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Eye protection

Wear eye protection with side shields or goggles.

Respiratory protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers.

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber.

Environmental Exposure Control

Use the appropriate container to avoid environmental contamination. Keep away from all drains, surface and ground water. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

% HAPS	0.00000%
% Solids By Weight	0.50335%
% VHAPS	0.00000%
% VOC	0.08000%
Density HAPS	0.00000 lb/gal
Density VHAPS	0.00000 lb/gal
Density VOC	8.169060E-03 lb/gal
Density	10.21130 lb/gal
Specific Gravity	1.22359
Appearance	Clear to slightly hazy liquid
Auto Ignition Temp	N/A
Coefficient Water/Oil	N/A
Decomposition Pt	N/A
Evaporation Rate	N/A
Flammability	N/A
Flash Point	N/A
Freezing Point	N/A
High Boiling Point	N/A
Low Boiling Point	N/A
Lower Explosion Level	N/A
Melting Point	N/A
Odor Description	Odourless
Odor Threshold	N/A
pH	7.00000
Upper Explosion Level	N/A
Vapor Density	N/A
Vapor Pressure	17.52600 mmHg
Viscosity	N/A
Water Solubility	N/A

9.2 Other Information

No data available.



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Section 10. Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under normal storage and handling conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Avoid heat, sparks, flame, high temperature and contact with incompatible materials.

10.5 Incompatible materials

Strong bases, acids, and oxidizing agents.

10.6 Hazardous decomposition products

Oxides of carbon.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute Toxicity

The Acute Toxicity Estimate (ATE) for an oral exposure to this mixture is >5000 mg/kg body weight

The Acute Toxicity Estimate (ATE) for a dermal exposure to this mixture is >5000 mg/kg body weight

The Acute Toxicity Estimate (ATE) for an inhalation (vapour) exposure to this mixture is >20 mg/l

Aspiration Hazard

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Germ Cell Mutagenicity

Based on available data, the classification criteria are not met.

Reproductive Toxicity

Based on available data, the classification criteria are not met.

Respiratory/Skin Sensitization

Based on available data, the classification criteria are not met.

Serious Eye Damage/Irritation

Based on available data, the classification criteria are not met.

Skin Corrosion/Irritation

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Repeated Exposure

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Single Exposure

Based on available data, the classification criteria are not met.

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

11.2 Symptoms / routes of exposure

11.2.1 Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : No data available.

11.2.2 Other Information

Other information : Symptoms related to the physical, chemical and toxicological characteristics, for further information see section 4.



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Section 12. Ecological information

12.1 Toxicity

Based on available data, the classification criteria are not met.

12.2 Persistence and degradability

Phosphates are converted to calcium or iron/aluminum phosphates or are incorporated with the organic soil matter.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Endocrine Disrupting Properties

The substance(s) is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7 Other Adverse Effects

No data available.

12.8 Additional Information

No data available.

Section 13. Disposal considerations

13.1 Waste Treatment Methods

Product/Packaging disposal recommendations : Avoid release to the environment.

13.2 Waste Disposal

Waste Treatment Methods

It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, state and local laws.

Section 14. Transport information

	Land Transportation (ADR/RID)	Inland Waterway Transport (ADN(R))	Air Transport (ICAO/IATA)	Marine Transport (IMDG)
14.1 UN Number	Not Regulated	Not Regulated	Not Regulated	Not Regulated
14.2 UN proper shipping name	N/A	N/A	N/A	N/A
14.3 Transport Hazard class(es)	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.4 Packing group	Not Applicable	Not Applicable	Not Applicable	Not Applicable
14.5 Environmental hazards	No Data Available	No Data Available	No Data Available	No Data Available
14.6 Special precautions for user	No Data Available	No Data Available	No Data Available	No Data Available
14.7 Transport in bulk according to Annex II of MARPOL and the IBC code	No Data Available	No Data Available	No Data Available	No Data Available

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Section 15. Regulatory information

CAS	Chemical Name	% By Weight	Regulation List
No applicable CAS	No applicable chemical		

Section 16. Other information

Glossary

ACGIH - American Conference of Governmental Industrial Hygienists; Acute Tox. - acute toxicity; ADN - (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road; CAS - Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances); Chemtrec - Chemical Transportation Emergency Center; CLP Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures; DSL - Domestic Substances List; EC No - The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union) EH40/2005 EH40/2005 Workplace exposure limits (<http://www.nationalarchives.gov.uk/doc/opengovernment-licence/>); EINECS - European Inventory of Existing Commercial Chemical Substances; ELINCS - European List of Notified Chemical Substances; Eye Dam. - Seriously damaging to the eye; Eye Irrit. – Irritant to the eye; Flam. Liq. – Flammable Liquid; Flam. Sol. – Flammable Solid; GHS - “Globally Harmonized System of Classification and Labelling of Chemicals” developed by the United Nations; HMIS - Hazardous Material Information Service; IATA - Dangerous Goods Regulations (DGR) for the air transport (IATA); IMDG - International Maritime Dangerous Goods Code; MARPOL - International Convention for the Prevention of Pollution from Ships (abbr. of “Marine Pollutant”); IOELV - Indicative Occupational Exposure Limit Value; LC - Lethal Concentration; LD - Lethal Dose; NFPA - National Fire Protection Association; OEL - Occupational Exposure Limits; NLP - No-Longer Polymer; PBT - Persistent, Bioaccumulative and Toxic; PEL - Permissible Exposure Limit; SARA 313 - Superfund Amendments and Reauthorization Act, Section 313; SCBA - Self Contained Breathing Apparatus; ppm - parts per million; REACH - Registration, Evaluation, Authorization and Restriction of Chemicals; Resp. Sens. - Respiratory sensitization; Resp. – Respiratory Irritation; RID - (Regulations concerning the International carriage of Dangerous goods by Rail; Skin Corr. - Corrosive to skin; Skin Irrit. - Irritant to skin; Skin Sens. - Skin sensitization; STEL - Short-term exposure limit; STOT SE - Specific target organ toxicity - single exposure; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act Public Law 94-469; TWA - Time-weighted average; vPvB - Very Persistent and very Bioaccumulative; WEL - Workplace exposure limit.

Training advice

Training staff on good practice.

Manipulations are to be done only by qualified and authorized persons.

Classification methods used to derive the classification for mixtures according to Regulation (EC) 1272/2008

Calculation methods have been used for evaluation of all hazard classes assigned to the product under Article 9 of Regulation (EC) No. 1272/2008.

Key literature references and sources for data

ECHA Dissemination Database, ECHA (European Chemical Agency), Supplier SDS, INCHEM2, ECOTOX and RTECS databases.

ECHA Dissemination Database, ECHA (European Chemicals Agency), Supplier SDS, INCHEM, ECOTOX (Ecotoxicology Knowledgebase), RTECS (Registry of Toxic Effects of Chemical Substances).

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