MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION

Product Name	:	P50 F CLASS – ECO FOAM (AQUAFAT)
Use	:	Fire Extinguishing Foam for fires F Class
Supplier	:	Britannia Fire Limited Ashwellthorpe Industrial Estate Ashwellthorpe NR16 1ER United Kingdom
Telephone	:	+44 (0) 1508 488416
E mail	:	sales@britannia-fire.co.uk

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
GB CLP Regulation:

Classification of this product has been carried out in accordance with GB CLP Regulation.

Eye Irrit. 2: Eye irritation, Category 2, H319

Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements
GB CLP Regulation:

Warning

Hazard statements:
Eye Irrit. 2: H319 - Causes serious eye irritation.

Skin Irrit. 2: H315 - Causes skin irritation.

Precautionary statements:
P264: Wash thoroughly after use.
P280: Wear protective gloves/protective clothing/eye protection/protective footwear.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P337+P313: If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

Product fails to meet PBT/vPvB criteria.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances : Not applicable

3.2. Mixtures

Chemical description: Aqueous solution of tensoactives

Components:

In accordance with Annex II of The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020, the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 127-08-2	Potassium acetate	40 - <50%

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

First-aid measures after inhalation : Remove person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

First-aid measures after skin contact : Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burn or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

First-aid measures after eye contact : Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

First-aid measures after ingestion : Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms and effects, both acute and delayed

Acute and delayed effects are indicated in sections 2 and 11.

4.3. Indication of any immediate medical attention and special treatment needed

Non-applicable.

5. FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media:

Non-applicable

5.2. Special hazards arising from the substance or mixture

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3. Advice for firefighters

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...).

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

6. ACCIDENTIAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

For non-emergency personnel: Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8).
Evacuate the area and keep out those who do not have protection**.**

For emergency responders:

See section 8.

6.2. Environmental precautions

This product is not classified as hazardous to the environment. Keep product away from drains, surface and ground water.

6.3. Methods and material for containment and cleaning up

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4. Reference to other sections

For further information refer to sections 8 and 13.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and destroy using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, handling and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2. Conditions for safe storage, including any incompatibilities

A.- Technical measures for storage

Minimum Temp.: 5°C

Maximum Temp.: 50°C

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3. Specific end use(s)

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace: There are no applicable occupational exposure limits for the substances contained in the product

DNEL (Workers):

		Short exposure		Long exposure	
Identification		**Systemic**	**Local**	**Systemic**	**Local**
Potassium acetate CAS: 127-08-2 EC: 204-822-2	**Oral**	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	86.14 mg/kg	Non-applicable	14.36 mg/kg	Non-applicable
	Inhalation	1265.65 mg/m³	Non-applicable	1265.65 mg/m³	Non-applicable

DNEL (General population):

		Short exposure		Long exposure	
Identification		**Systemic**	**Local**	**Systemic**	**Local**
Potassium acetate CAS: 127-08-2 EC: 204-822-2	**Oral**	43.07 mg/kg	Non-applicable	6 mg/kg	Non-applicable
	Dermal	43.07 mg/kg	Non-applicable	7.18 mg/kg	Non-applicable
	Inhalation	624.2 mg/m³	Non-applicable	624.2 mg/m³	Non-applicable

PNEC:

Identification				
Potassium acetate CAS: 127-08-2 EC: 204-822-2	**STP**	862 mg/L	**Fresh water**	0.46 mg/L
	Soil	0.002 mg/kg	**Marine water**	0.046 mg/L
	Intermittent	Non-applicable	**Sediment (Fresh water)**	0.002 mg/kg
	Oral	Non-applicable	**Sediment (Marine water)**	0 mg/kg

8.2. Exposure controls

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <>. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

PPE	Remarks
Protective gloves against minor risks	Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2004+A1:2010 and EN ISO 374-1:2016+ A1:2018

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

PPE	Remarks
Panoramic glasses against splash/projections.	Clean daily and disinfect periodically according to the manufacturer´s instructions. Use if there is a risk of splashing.

E.- Body protection

PPE	Remarks
Work clothing	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.
Anti-slip work shoes	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2012 y EN 13832-1:2007

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

8.3. Environmental exposure controls

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance:	
Physical state at 20°C	: Liquid
Appearance:	: Transparent
Colour	: Yellowish
Odour	: characteristic.
Odour threshold	: Non-applicable *
Volatility:	
Boiling point at atmospheric pressure	: Non-applicable *
Vapour pressure at 20°C	: Non-applicable *
Vapour pressure at 50°C	: 12381.01 Pa (12.38 kPa)
Evaporation rate at 20°C	: Non-applicable *
Product description:	
Density at 20°C	: 1230 - 1270 kg/m³
Relative density at 20°C	: Non-applicable *
Dynamic viscosity at 20°C	: 5 cP
Kinematic viscosity at 20°C	: Non-applicable *
Kinematic viscosity at 40°C	: Non-applicable *
Concentration:	: Non-applicable *
pH:	: 6.5 - 7.5
Vapour density at 20°C	: Non-applicable *
Partition coefficient n-octanol/water 20°C	: Non-applicable *
Solubility in water at 20°C	: Non-applicable *
Solubility properties:	: Highly water-soluble
Decomposition temperature	: Non-applicable *
Melting point/freezing point	: Non-applicable *
Flammability:	
Flash Point:	Non Flammable (>60°C)
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	Non-applicable *
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *
Particle characteristics:	
Median equivalent diameter:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

9.2. Other information

Information with regard to physical hazard classes:

Explosive properties	: Non-applicable *
Oxidising properties	: Non-applicable *
Corrosive to metals	: Non-applicable *
Heat of combustion	: Non-applicable *

Aerosols-total percentage (by mass) of flammable components	: Non-applicable *
Other safety characteristics	: Non-applicable *
Surface tension at 20°C	: Non-applicable *
Refraction index	: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

10. STABILITY AND REACTIVITY

10.1. Reactivity
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2. Chemical stability
Chemically stable under the indicated conditions of storage, handling and use.

10.3. Possibility of hazardous reactions
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4. Conditions to avoid
Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

10.5. Incompatible materials

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Not applicable	Not applicable	Avoid alkalis or strong bases

10.6. Hazardous decomposition products
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO_2), carbon monoxide and other organic compounds.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for consumption. For more information see section 3
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Potassium acetate CAS: 127-08-2	**LD50 oral**	3250 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	

12. ECOLOGICAL INFORMATION

12.1. Toxicity
Not available

12.2. Persistence and degradability
Not available

12.3. Bioaccumulative potential
Not available

12.4. Mobility in soil
Not available

12.5. Results of PBT and vPvB assessment
Product fails to meet PBT/vPvB criteria.

12.6. Other adverse effects
Not described

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Type of waste:
HP4 Irritant — skin irritation and eye damage

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance The Waste Regulations 2011, 2011 No. 988. As under 15 01 of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of UK REACH the provisions related to waste management are stated: UK legislation: The Waste Regulations 2011.

14. TRANSPORT INFORMATION

General information : Not classified as dangerous in the meaning of transport regulations.
Not regulated.

When transported in a stored pressure or cartridge type fire extinguisher, the fire extinguisher is considered a class 2.2 hazard.
The proper shipping name shall be FIRE EXTINGUISHER, and the number is UN 1044.

UN Number
UN 1044
UN proper shipping name
Fire extinguisher
Transport hazard class(es)
2.2

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Substances listed in UK REACH Authorisation List (Annex 14): Non-applicable Substances listed in UK candidate list of substances of very high concern (SVHCs): Non-applicable.

The Control of Major Accident Hazards Regulations 2015:
Non-applicable

Restrictions to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII UK REACH, etc ….):
Shall not be used in:
—ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
—tricks and jokes,
—games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation
The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020. The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020.
Control of Substances Hazardous to Health Regulations 2002 (as amended) EH40/2005 Workplace exposure limits.

16. OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with ANNEX II-The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation.
H319: Causes serious eye irritation.

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

GB CLP Regulation:
Non-applicable
Advice related to training: Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

http://echa.europa.eu

http://eur-lex.europa.eu

Abbreviations and acronyms:

ADR:	: European agreement concerning the international carriage of dangerous goods by road
IMDG:	International maritime dangerous goods code
IATA:	International Air Transport Association
ICAO:	International Civil Aviation Organisation
COD:	Chemical Oxygen Demand
BOD5:	5day biochemical oxygen demand
BCF:	Bioconcentration factor
LD50:	Lethal Dose 50
LC50:	Lethal Concentration 50
EC50:	Effective concentration 50
LogPOW:	Octanolwater partition coefficient
Koc:	Partition coefficient of organic carbon
UFI:	unique formula identifier
IARC:	International Agency for Research on Cancer