

## ALPHA600/BETA950 BC POWDER

1. IDENTITY OF SUBSTANCE / COMPANY UNDERTAKING		
<b>MATERIAL IDENTIFICATION</b>		
PRODUCT	BI-EX ®	
SYNONYMS	ALPHA600/BETA950BC POWDER	
INTENDED USE	Dry chemical fire fighting agent	
<b>COMPANY IDENTIFICATION</b>		
ADDRESS	FX Fire & Safety Solutions Ltd. Unit 3, Belvedere Business Park Crabtree Manorway South Belvedere, DA17 6AH	
TELEPHONE / EMAIL	+44 (0) 208 310 3950 sales@fxfire.co.uk	
2. HAZARDS IDENTIFICATION		
<p>The product is not classified as hazardous according to CLP Regulation (EC) No 1272/2008.            Product fails to meet PBT/vPvB criteria            Endocrine-disrupting properties: The product fails to meet the criteria.</p>		
3. COMPOSITION AND INGREDIENT INFORMATION		
<b>CHEMICAL NAME:</b> Sodium hydrogencarbonate <sup>(1)</sup>	<b>CAS NO:</b> 144-55-8	<b>CONTENT %</b> 75 - <100 %
<b>EC:</b> 205-633-8	<b>Index:</b> Non-applicable	<b>Reach:</b> 01-2119457606
<b>Regulation:</b> 1272/2008		
<p><sup>(1)</sup> Voluntarily-listed substance failing to meet any of the criteria set out in Regulation (EU) No. 2020/878</p>		
4. FIRST AID MEASURES		
AFTER SKIN CONTACT	In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes to the skin (stinging, redness, rashes, blisters,...), seek medical advice with this Safety Data Sheet	
AFTER EYE CONTACT	This product does not contain substances classified as hazardous for eye contact. Rinse eyes thoroughly for at least 15 minutes with lukewarm water, ensuring that the person affected does not rub or close their eyes.	
AFTER INHALING	This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.	
AFTER SWALLOWING	In case of consumption, seek immediate medical assistance showing the SDS for the product..	

## 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,...) in accordance with Directive 89/654/EC.

#### 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. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures:

#### For non-emergency personnel:

Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal.

#### For emergency responders:

Wear protective equipment. Keep unprotected persons away. 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:

Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal.

### 6.4 Reference to other sections:

See 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 dispose of using safe methods (section 6).

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

Due to its non-inflammable nature, the product does not present a fire risk under normal conditions of storage, handling and use.

#### 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).

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## 7. HANDLING AND STORAGE (continued)

### 7.2 Conditions for safe storage, including any incompatibilities:

#### A.- Technical measures for storage

Minimum Temp.: 5 °C  
 Maximum Temp.: 30 °C  
 Maximum time: 6 Months

#### 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 CONTROL AND PERSONAL PROTECTION

### 8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace (European OEL, not country-specific legislation):

Nuisance dust: Inhalable dust 10 mg/m<sup>3</sup> // Respirable dust 4 mg/m<sup>3</sup>

#### DNEL (Workers):

Non-applicable

#### DNEL (General population):

Non-applicable

#### PNEC:

Non-applicable

### 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 <<CE marking>> in accordance with Regulation (EU) 2016/425. 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



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Compulsory use of face mask	Filter mask for particles		EN 149:2001+A1:2009	Replace when an increase in resistance to breathing is observed.

#### C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	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 can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

#### D.- Eye and face protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.		EN 166:2002 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.



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## 8. EXPOSURE CONTROL AND PERSONAL PROTECTION (continued)

### E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	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		EN ISO 20347:2012	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

### 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.

### Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	0 % weight
V.O.C. density at 20 °C:	0 kg/m <sup>3</sup> (0 g/L)
Average carbon number:	Non-applicable
Average molecular weight:	Non-applicable

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

#### Appearance:

Physical state at 20 °C:	Solid
Appearance:	Powdery
Colour:	White
Odour:	Odourless
Odour threshold:	Non-applicable *

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

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## 9. PHYSICAL AND CHEMICAL PROPERTIES (continued)

### Volatility:

Boiling point at atmospheric pressure:	Non-applicable *
Vapour pressure at 20 °C:	Non-applicable *
Vapour pressure at 50 °C:	Non-applicable *
Evaporation rate at 20 °C:	Non-applicable *

### Product description:

Density at 20 °C:	Non-applicable *
Relative density at 20 °C:	Non-applicable *
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	Non-applicable *
Concentration:	Non-applicable *
pH:	8,5 (at 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:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	>50 °C

### Flammability:

Flash Point:	Non-applicable *
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	Non-applicable *
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *

### Explosive (Solid):

Lower explosive limit:	Non-applicable *
Upper explosive limit:	Non-applicable *

### Particle characteristics:

Median equivalent diameter:	Non-applicable *
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## 9. PHYSICAL AND CHEMICAL PROPERTIES (continued)

### 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:

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

### 10.2 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	Not applicable
Contact with air	Avoid direct impact
Increase in temperature	Not applicable
Sunlight	Not applicable
Humidity	Avoid direct impact

### 10.5 Incompatible materials:

Acids	Can react violently
Water	Not applicable
Oxidising materials	Not applicable
Combustible materials	Not applicable
Others	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<sub>2</sub>), carbon monoxide and other organic compounds.

## 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:

The experimental information related to the toxicological properties of the product itself is not available.

#### 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: 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.

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

-Contact with the eyes: 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.

#### 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.

#### Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
Sodium hydrogencarbonate	4220 mg/kg	Non-applicable	Rat
CAS: 144-55-8	LD50 dermal	Non-applicable	
EC: 205-633-8	LC50 inhalation	Non-applicable	

### 11.2 Information on other hazards:

#### Endocrine disrupting properties

Endocrine-disrupting properties: The product fails to meet the criteria.

#### Other information

Non-applicable

## 12. ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

### 12.1 Toxicity:

#### Acute toxicity:

Identification	Concentration		Species	Genus
Sodium hydrogencarbonate CAS: 144-55-8 EC: 205-633-8	LC50	7700 mg/L (24 h)	Gambussia affinis	Fish
	EC50	2350 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	Non-applicable		

#### Chronic toxicity:

Identification	Concentration		Species	Genus
Sodium hydrogencarbonate CAS: 144-55-8 EC: 205-633-8	NOEC	Non-applicable		
	NOEC	576 mg/L	Daphnia magna	Crustacean

### 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 Endocrine disrupting properties:

Endocrine-disrupting properties: The product fails to meet the criteria.

### 12.7 Other adverse effects:

Not described

Code	Description	Waste class (Regulation (EU) No 1357/2014)
16 03 04	Inorganic wastes other than those mentioned in 16 03 03	Non dangerous

Type of waste (Regulation (EU) No 1357/2014):

Non-applicable

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) 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 Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated.

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014.



### 13. DISPOSAL CONSIDERATIONS

Code	Description	Waste class (Regulation (EU) No 1357/2014)
16 03 04	inorganic wastes other than those mentioned in 16 03 03	Non dangerous

**Type of waste (Regulation (EU) No 1357/2014):**

Non-applicable

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) 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 Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated.

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014.

### 14. TRANSPORT INFORMATION

This product is not regulated for transport (ADR/RID,IMDG,IATA)

### 15. REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable  
Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable  
Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable  
Article 95, REGULATION (EU) No 528/2012: Non-applicable  
REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

**Seveso III:**

Non-applicable

**Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc ....):**

Non-applicable

**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 product could be affected by sectorial legislation.

**15.2 Chemical safety assessment:**

The supplier has not carried out evaluation of chemical safety.

### 16. OTHER INFORMATION

**Legislation related to safety data sheets:**

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878).

**Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:**

COMMISSION REGULATION (EU) 2020/878

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.

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## 16. OTHER INFORMATION (continued)

### CLP Regulation (EC) No 1272/2008:

Non-applicable

### Classification procedure:

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

Product safety information sheet prepared in accordance with Article 32 of Regulation (EC) 1907/2006 (REACH); this document does not constitute a Safety Data Sheet under Article 31 of Regulation (EC) No. 1907/2006, as a Safety Data Sheet is not mandatory for this product. The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

**END OF DOCUMENT**

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# UltraFire

 [www.ultra-fire.co.uk](http://www.ultra-fire.co.uk)

 [support@ultra-fire.co.uk](mailto:support@ultra-fire.co.uk)