Fire Safety Equipment Pty Ltd

Chemwatch Hazard Alert Code: 2

Issue Date: 22/06/2017 Print Date: 14/03/2018 L.GHS.AUS.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	Complete Fire Extinguisher ABE powder type
Synonyms	Not Available
Proper shipping name	FIRE EXTINGUISHERS with compressed or liquefied gas
Other means of identification	Not Available

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Fire extinguishing agent.
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Details of the supplier of the safety data sheet

Registered company name	Fire Safety Equipment Pty Ltd
Address	2A Staple Street Seventeen Mile Rocks QLD 4073 Australia
Telephone	+61 7 3715 5644
Fax	+61 7 3715 8450
Website	www.fsequip.com.au
Email	ray@fsequip.com.au

Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	+61 7 3715 5644 Mon-Fri 8am - 5pm
Other emergency telephone numbers	Not Available

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Poisons Schedule	Not Applicable	
Classification ^[1]	Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation), Chronic Aquatic Hazard Category 4	
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI	

Label elements

Hazard pictogram(s)	
SIGNAL WORD	WARNING
Hazard statement(s)	
H315	Causes skin irritation.

H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H413	May cause long lasting harmful effects to aquatic life.
AUH044	Risk of explosion if heated under confinement.

Precautionary statement(s) Prevention

P271	Use only outdoors or in a well-ventilated area.	
P261	Avoid breathing dust/fumes.	
P273	Avoid release to the environment.	
P280	Wear protective gloves/protective clothing/eye protection/face protection.	

Precautionary statement(s) Response

P362	Take off contaminated clothing and wash before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P332+P313	If skin irritation occurs: Get medical advice/attention.

Precautionary statement(s) Storage

P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

Precautionary statement(s) Disposal

P501

Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
7722-76-1	>60	ammonium phosphate, monobasic
		propellant as,
7727-37-9.		nitrogen

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	► Generally not applicable.
Skin Contact	 If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	 Following exposure to gas, remove the patient from the gas source or contaminated area. NOTE: Personal Protective Equipment (PPE), including positive pressure self-contained breathing apparatus may be required to assure the safety of the rescuer. Prostheses such as false teeth, which may block the airway, should be removed, where possible, prior to initiating first aid procedures. If the patient is not breathing spontaneously, administer rescue breathing. If the patient does not have a pulse, administer CPR. If medical oxygen and appropriately trained personnel are available, administer 100% oxygen. Summon an emergency ambulance. If an ambulance is not available, contact a physician, hospital, or Poison Control Centre for further instruction.

	 Keep the patient warm, comfortable and at rest while awaiting medical care. MONITOR THE BREATHING AND PULSE, CONTINUOUSLY. Administer rescue breathing (preferably with a demand-valve resuscitator, bag-valve mask-device, or pocket mask as trained) or CPR if necessary.
Ingestion	► Not considered a normal route of entry.

Indication of any immediate medical attention and special treatment needed

For gas exposures:

BASIC TREATMENT

- Establish a patent airway with suction where necessary.
- Watch for signs of respiratory insufficiency and assist ventilation as necessary.
- Administer oxygen by non-rebreather mask at 10 to 15 l/min.
- Monitor and treat, where necessary, for pulmonary oedema.
- · Monitor and treat, where necessary, for shock.
- Anticipate seizures.

ADVANCED TREATMENT

- + Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.
- Positive-pressure ventilation using a bag-valve mask might be of use.
- Monitor and treat, where necessary, for arrhythmias.
- + Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications.
- Drug therapy should be considered for pulmonary oedema.
- + Hypotension with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might create complications.
- Treat seizures with diazepam.
- + Proparacaine hydrochloride should be used to assist eye irrigation.

BRONSTEIN, A.C. and CURRANCE, P.L.

EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

Non flammable.

Special hazards arising from the substrate or mixture

Fire Incompatibility	+ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition
Fire Incompatibility	may result

Advice for firefighters

Fire Fighting	If safe to do so, remove containers from path of fire. Cool fire exposed containers with water spray from a protected location.
Fire/Explosion Hazard	 Containers may explode when heated - Ruptured cylinders may rocket Fire exposed containers may vent contents through pressure relief devices. High concentrations of gas may cause asphyxiation without warning. May decompose explosively when heated or involved in fire. Contact with gas may cause burns, severe injury and/ or frostbite. Decomposition may produce toxic fumes of: carbon monoxide (CO) carbon dioxide (CO2) nitrogen oxides (NOx) phosphorus oxides (POx) other pyrolysis products typical of burning organic material.
HAZCHEM	Not Applicable

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	 Avoid breathing vapour and any contact with liquid or gas. Protective equipment including respirator should be used. DO NOT enter confined spaces where gas may have accumulated. Increase ventilation. Clear area of personnel. Stop leak only if safe to so do. Remove leaking cylinders to safe place. Release pressure under safe controlled conditions by opening valve. Do not exert excessive pressure on the valve; do not attempt to operate a damaged valve Orientate cylinder so that the leak is gas, not liquid, to minimise rate of leakage Keep area clear of personnel until gas has dispersed.
Major Spills	 Clean up all spills immediately. Wear protective clothing, safety glasses, dust mask, gloves. Secure load if safe to do so. Bundle/collect recoverable product. Use dry clean up procedures and avoid generating dust. Vacuum up (consider explosion-proof machines designed to be grounded during storage and use). Water may be used to prevent dusting. Collect remaining material in containers with covers for disposal. Flush spill area with water.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Precautions for safe har	
Safe handling	 Limit all unnecessary personal contact. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. When handling DO NOT eat, drink or smoke. Always wash hands with soap and water after handling. Avoid physical damage to containers. Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS.
Other information	 Cylinders should be stored in a purpose-built compound with good ventilation, preferably in the open. Such compounds should be sited and built in accordance with statutory requirements. The storage compound should be kept clear and access restricted to authorised personnel only. Cylinders stored in the open should be protected against rust and extremes of weather. Cylinders in storage should be properly secured to prevent toppling or rolling. Cylinder valves should be closed when not in use. Where cylinders are fitted with valve protection this should be in place and properly secured. Gas cylinders should be segregated according to the requirements of the Dangerous Goods Act. Preferably store full and empty cylinders separately. Check storage areas for hazardous concentrations of gases prior to entry. Full cylinders in storage should be checked periodically for general condition and leakage. Protect cylinders against physical damage. Move and store cylinders correctly as instructed for their manual handling. NOTE: A 'G' size cylinder is usually too heavy for an inexperienced operator to raise or lower.

Conditions for safe storage, including any incompatibilities

Suitable container	 Glass container is suitable for laboratory quantities Cylinder: Ensure the use of equipment rated for cylinder pressure. Ensure the use of compatible materials of construction. Valve protection cap to be in place until cylinder is secured, connected. Cylinder must be properly secured either in use or in storage. Cylinder valve must be closed when not in use or when empty. Segregate full from empty cylinders.
Storage incompatibility	 Avoid strong bases. Compressed gases may contain a large amount of kinetic energy over and above that potentially available from the energy of reaction produced by the gas in chemical reaction with other substances

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Not Available

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STE	EL	Peak	Notes
Australia Exposure Standards	nitrogen	Nitrogen	Not Available	Not	Available	Not Available	Asphyxiant
EMERGENCY LIMITS							
Ingredient	Material name	Material name			TEEL-1	TEEL-2	TEEL-3
ammonium phosphate, monobasic	Ammonium dihyo	Ammonium dihydrogen phosphate; (Monoammonium phosphate)			17 mg/m3	190 mg/m3	1,100 mg/m3
nitrogen	Nitrogen	Nitrogen			7.96E+05 ppm	8.32E+05 ppm	8.69E+05 ppm
Ingredient	Original IDLH	Original IDLH		Revised IDLH			
ammonium phosphate, monobasic	Not Available	Not Available		Not Available			

Not Available

MATERIAL DATA

nitrogen

Exposure controls

Appropriate engineering controls	▶ Generally not applicable.
Personal protection	
Eye and face protection	 Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]
Skin protection	See Hand protection below
Hands/feet protection	Wear chemical protective gloves, e.g. PVC. Wear safety footwear.
Body protection	See Other protection below
Other protection	 ► Overalls. ► Eyewash unit.
Thermal hazards	Not Available

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Pale blue powder with a weak odour; slightly soluble in water.			
Physical state	Manufactured	Relative density (Water = 1)	~0.85	
Odour	Not Available	Partition coefficient n-octanol / water	Not Available	
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Applicable	

pH (as supplied)	Not Applicable	Decomposition temperature	Not Available
Melting point / freezing point (°C)	>300	Viscosity (cSt)	Not Applicable
Initial boiling point and boiling range (°C)	Not Applicable	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Applicable	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Applicable
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Applicable
Vapour pressure (kPa)	Negligible	Gas group	Not Available
Solubility in water (g/L)	Partly miscible	pH as a solution (1%)	4.6-4.7
Vapour density (Air = 1)	Not Applicable	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	 Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	Evidence shows, or practical experience predicts, that the material produces irritation of the respiratory system, in a substantial number of individuals, following inhalation. In contrast to most organs, the lung is able to respond to a chemical insult by first removing or neutralising the irritant and then repairing the damage. The repair process, which initially evolved to protect mammalian lungs from foreign matter and antigens, may however, produce further lung damage resulting in the impairment of gas exchange, the primary function of the lungs. Respiratory tract irritation often results in an inflammatory response involving the recruitment and activation of many cell types, mainly derived from the vascular system. Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual. Common, generalised symptoms associated with non-toxic gas inhalation include : central nervous system effects such as headache, confusion, dizziness, progressive stupor, coma and seizures; respiratory system complications may include tachypnoea and dyspnoea; cardiovascular effects may also be present and may include mucous membrane irritation and nausea and vomiting.
Ingestion	Considered an unlikely route of entry in commercial/industrial environments
Skin Contact	Evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis. The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Eye	Evidence exists, or practical experience predicts, that the material may cause eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctivita); temporary impairment of vision and/or other transient eye damage/ulceration may occur. Direct contact with the eye may not cause irritation because of the extreme volatility of the gas; however concentrated atmospheres may produce irritation after brief exposures
Chronic	Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. Principal route of occupational exposure to the gas is by inhalation. Dogs given daily doses of sodium phosphate dibasic for 9-22 weeks showed calcium deposits in the kidneys (nephrocalcinosis) with disseminated atrophy of the proximal tubule. Animals fed on sodium phosphate dibasic and potassium dihydrogen phosphate, in both short- and long-term studies, showed increased bone porosity; hyperparathyroidism and soft tissue calcification were also evident.

Complete Fire Extinguisher ABE powder	TOXICITY	IRRITATION
type	Not Available	Not Available
	TOXICITY	IRRITATION
ammonium phosphate, monobasic	dermal (rat) LD50: >5000 mg/kg ^[1]	Not Available
	Oral (rat) LD50: >2000 mg/kg ^[1]	
	ΤΟΧΙΟΙΤΥ	IRRITATION
nitrogen	Not Available	Not Available
Legend:	, 0	Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. RTECS - Register of Toxic Effect of chemical Substances
	Oniess otherwise specified data extracted nonin	TECS - Register of Toxic Effect of chemical Substances

AMMONIUM PHOSPHATE, MONOBASIC MONOBASIC MONOBASIC MONOBASIC

Acute Toxicity	0	Carcinogenicity	0
Skin Irritation/Corrosion	¥	Reproductivity	0
Serious Eye Damage/Irritation	*	STOT - Single Exposure	*
Respiratory or Skin sensitisation	0	STOT - Repeated Exposure	0
Mutagenicity	0	Aspiration Hazard	0

Legend: 🗙

X – Data available but does not fill the criteria for classification

Data available to make classification
 Data Nat Available to make classification

O – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Complete Fire Extinguisher ABE powder type	ENDPOINT Not Available	TEST DURATION (HR) Not Available	SPECIES Not Available	VALUE Not Available	SOURCE Not Available
ammonium phosphate,	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
monobasic	LC50	96	Fish	>85.9mg/L	2

	EC50	72	Algae or other aquatic plants	>97.1mg/L	2
	NOEC	72	Algae or other aquatic plants	3.57mg/L	2
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
nitrogen	Not Available	Not Available	Not Available	Not Available	Not Available
Legend:	Toxicity 3. EF Data 5. ECE	m 1. IUCLID Toxicity Data 2. Europe ECHA PIWIN Suite V3.12 (QSAR) - Aquatic Toxici FOC Aquatic Hazard Assessment Data 6. N tion Data 8. Vendor Data	ty Data (Estimated) 4. US EPA, Ecotox da	atabase - Aqua	

May cause long-term adverse effects in the aquatic environment. **DO NOT** discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
ammonium phosphate, monobasic	нідн	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
ammonium phosphate, monobasic	LOW (LogKOW = -0.7699)

Mobility in soil

Ingredient	Mobility
ammonium phosphate, monobasic	HIGH (KOC = 1)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment metho	ds
Product / Packaging disposal	 Evaporate residue at an approved site. Return empty containers to supplier. If containers are marked non-returnable establish means of disposal with manufacturer prior to purchase. Ensure damaged or non-returnable cylinders are gas-free before disposal.

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (ADG)

UN number	1044
UN proper shipping name	FIRE EXTINGUISHERS with compressed or liquefied gas
Transport hazard class(es)	Class 2.2 Subrisk Not Applicable
Packing group	Not Applicable
Environmental hazard	Not Applicable

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Complete Fire Extinguisher ABE powder type

Special precautions for	Special provisions 225
user	Limited quantity 120 ml

Air transport (ICAO-IATA / DGR)

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UN number	1044			
UN proper shipping name	Fire extinguishers with compressed or liquefied gas			
Transport hazard class(es)	ICAO/IATA Class ICAO / IATA Subrisk ERG Code	2.2 Not Applicable 2L		
Packing group	Not Applicable			
Environmental hazard	Not Applicable			
Special precautions for user	Special provisions		A19	
	Cargo Only Packing Instructions		213	
	Cargo Only Maximum Qty / Pack		150 kg	
	Passenger and Cargo Packing Instructions		213	
	Passenger and Cargo Maximum Qty / Pack		75 kg	
	Passenger and Cargo Limited Quantity Packing Instructions		Forbidden	
	Passenger and Cargo Limited Maximum Qty / Pack		Forbidden	

Sea transport (IMDG-Code / GGVSee)

UN number	1044		
UN proper shipping name	FIRE EXTINGUISHERS with compressed or liquefied gas		
Transport hazard class(es)	IMDG Class 2.2 IMDG Subrisk Not Applicable		
Packing group	Not Applicable		
Environmental hazard	Not Applicable		
Special precautions for user	EMS NumberF-C , S-VSpecial provisions225Limited Quantities120 mL		

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION

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

AMMONIUM PHOSPHATE, MONOBASIC(7722-76-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

NITROGEN(7727-37-9.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards Australia Inventory of Chemical Substances (AICS)

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Υ
Canada - NDSL	N (nitrogen; ammonium phosphate, monobasic)
China - IECSC	Υ
Europe - EINEC / ELINCS / NLP	Υ

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Complete Fire Extinguisher ABE powder type

Japan - ENCS	N (nitrogen)
Korea - KECI	Υ
New Zealand - NZIoC	Υ
Philippines - PICCS	N (nitrogen)
USA - TSCA	Υ
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

- PC-TWA: Permissible Concentration-Time Weighted Average
- PC-STEL: Permissible Concentration-Short Term Exposure Limit
- IARC: International Agency for Research on Cancer
- ACGIH: American Conference of Governmental Industrial Hygienists
- STEL: Short Term Exposure Limit
- TEEL: Temporary Emergency Exposure Limit。
- IDLH: Immediately Dangerous to Life or Health Concentrations
- OSF: Odour Safety Factor
- NOAEL :No Observed Adverse Effect Level
- LOAEL: Lowest Observed Adverse Effect Level
- TLV: Threshold Limit Value
- LOD: Limit Of Detection
- OTV: Odour Threshold Value
- BCF: BioConcentration Factors BEI: Biological Exposure Index
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TEL (+61 3) 9572 4700.