1. Identification of Substance & Company

Product	
Product name	Prestolit ABC 50
Product code	NA
HSNO approval	HSR002573
Approval description	Fire Fighting Chemicals Group Standard 2006
UN number	NA
Proper Shipping Name	NA
Packaging group	NA
Hazchem code	NA
Uses	Fire extinguisher medium
Company Details	
Company	**Tyco New Zealand Ltd**
Address	8 Henderson Place Onehunga Auckland New Zealand
Head Office Tel Number	+64-9-635-0600
Telephone	0800 4 WORMALD
Website	www.tycointegratedfireandsecurity.co.nz

Emergency Telephone Number: 0800CHEMCALL – 0800 243 622

2. Hazard Identification

Approval

This product has been approved under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002573, Fire Fighting Chemicals Group Standard 2006).

Classes	Hazard Statements
6.1D (oral)	Harmful if swallowed.
6.3B	Causes mild skin irritation.
6.4A	Causes eye irritation.
9.1D	Harmful to aquatic life.
9.3C	Harmful to terrestrial vertebrates.

SYMBOLS

WARNING

Other Classifications

There are no other Classifications that are known to apply.

Precautionary Statements

Keep out of reach of children.
Read label before use.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear eye/face protection.
Do not breathe dust.
Do not eat, drink or smoke when using this product.
Avoid release to the environment.
IF SWALLOWED: Do NOT induce vomiting. Rinse mouth. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs.
IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention.
Take off contaminated clothing and wash before re-use.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Apply continuous irrigation with water for at least 15 minutes holding eyelids apart. If eye irritation persists: Get medical advice.
IF exposed or concerned: Get medical advice/ attention.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Concentration
Monoammonium phosphate	7722-76-1	50% ± 2
Ammonium sulphate	7783-20-2	36% ± 2
Talc	14807-96-6	3-7%
Silica (quartz) - total	14808-60-7	<3%
Silica (quartz) - respirable crystalline silica dust	14808-60-7	<0.1%
Yellow pigment	NA	<0.04%
Methyl hydrogen polysiloxane	63148-57-2	<1%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities Ready access to running water is recommended. Accessible eyewash is recommended.

Exposure

Swallowed IF SWALLOWED: Do NOT induce vomiting. Rinse mouth. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Apply continuous irrigation with water for at least 15 minutes holding eyelids apart. If eye irritation persists: Get medical advice.

Skin contact IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention. Take off contaminated clothing and wash before re-use.

Inhaled Generally, inhalation of dusts is unlikely to result in adverse health effects. If coughing, dizziness or shortness of breath is experienced, remove the patient to fresh air immediately. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor.

Advice to Doctor

Treat symptomatically.

5. Firefighting Measures

Fire and explosion hazards: There are no specific risks for fire/explosion for this chemical. This product does not burn.

Suitable extinguishing substances: Not applicable – this substance is a fire fighting medium.

Unsuitable extinguishing substances: Unknown.

Products of combustion: Not applicable

Protective equipment: This substance is used as a fire fighting medium.

Hazchem code: NA

6. Accidental Release Measures

Containment If greater than *1000kg is stored,* secondary containment and emergency plans to manage any potential spills must be in place.In all cases design storage to prevent discharge to stormwater.

Emergency procedures The nature and packaging of the this product will prevent a large spill.
In the event of a large spill (>100kg) spillage alert the fire brigade to location and give brief description of hazard.

	Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method	Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of dusts. Work upwind from the source of the spill or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Keep from extreme heat and open flames when in storage. Avoid contact with incompatible substances as listed in Section 10.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of dusts. Increase exhaust ventilation.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 10mg/m^3 for dusts and mists when limits have not otherwise been established.

	Ingredient	WES-TWA	WES-STEL
NZ Workplace Exposure Stds (2013)	Silica – Crystalline (6.7A):		
	Quartz, respirable dust*	0.2mg/m^3 **	data unavailable
	silica cristobalite, respirable dust	0.1mg/m^3	data unavailable
	Silica-Amorphous	10mg/m^3	data unavailable
	Silica fused (respirable dust)	0.2mg/m^3	data unavailable

* present in <0.1%
**some agencies in other countries have lower standards for crystalline silica.

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the workplace exposure standard as practicable by applying the hierarchy of control required by the Health and Safety in Employment Act 1992 (HSE). Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes	Protective eyewear is not normally necessary when using this product. However, it always prudent to use protective eyewear if dust is likely.
Skin	Avoid repeated or prolonged skin contact. Wear overalls, rubber boots and impervious gloves. Replace frequently. Gloves should be checked for tears or holes before use. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking. Wash contaminated clothing before re-use.
Respiratory	To prevent irritation a well fitted dust mask should be used (this is not recommended when exposure is close to the workplace exposure standard). A fine particulate half or full face respirator with a particulate filter and an effective seal is recommended when airborne concentrations approach the workplace exposure standard (section 8).

Workplace Exposure Standard Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	light yellow powder
Odour	no data
pH	not determined
Vapour pressure	no data
Viscosity	no data
Boiling point	not determined
Volatile materials	not determined
Freezing / melting point	not determined

Solubility	slightly soluble in water
Specific gravity / density	no data
Flash point	does not burn
Danger of explosion	no data
Auto-ignition temperature	does not ignite
Upper & lower flammable limits	no data
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Containers should be kept closed in order to avoid contamination. Keep from extreme heat and open flames when not in use.
Incompatible groups	None known
Substance Specific Incompatibility	sodium hypochlorite (bleach)
Hazardous decomposition products	Ammonia, oxides of nitrogen and phosphorous.
Hazardous reactions	None known

11. Toxicological Information

Summary

IF IN EYES: Fine dust may cause irritation when in direct contact.

IF ON SKIN: direct contact may cause mild skin irritation.

IF INHALED: large amounts of powder in air, e.g. during discharge of the fire extinguisher may cause respiratory irritation and can restrict breathing.

IF SWALLOWED: may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

CHRONIC EFFECTS: No chronic effects are expected from this mixture.

Supporting Data

Acute	**Oral**	Using LD_{50}'s for ingredients, the calculated LD_{50} (oral, rat) for the mixture is between 300 and 2,000 mg/kg. Data considered includes: Ammonium sulphate 640 mg/kg (mouse), 2840mg/kg (rat).
	Dermal	Not considered acutely toxic by dermal contact.
	Inhaled	The substance is not considered acutely toxic if inhaled, however there may be irritation of the respiratory tract if dust is inhaled.
	Eye	The mixture is considered to be an eye irritant. Dust may be an eye irritant (mechanical irritation). Monoammonium phosphate may be irritating to the eye.
	Skin	The mixture is considered to be a mild skin irritant. Monoammonium phosphate may be irritating if in solution.
Chronic	**Sensitisation**	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	This material does contain crystalline silica, of which <0.1% is in a respirable form. Crystalline silica inhaled in the form of quartz from occupational sources is carcinogenic to humans (IARC Group 1). Crystalline Silica triggers 6.7A classification (confirmed carcinogen). The carcinogenicity of silica is related to long term (e.g., 10 years) inhalation of very fine particulate.
	Reproductive / Developmental	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.
	Systemic	The dust of this product is not considered to be a target organ toxicant, because of the presence of crystalline silica at less than 1%. Crystalline silica triggers 6.9A classification if it is in the form of a fine respirable dust in an occupational (chronic exposure) setting. Silicosis can occur following prolonged exposure (e.g., 10 years) to relatively high levels of fine crystalline silica dust. Based on limited animal research, it is possible that repeated inhalation of cellulose fibre dust may lead to inflammation and scarring of the lung.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This product is considered harmful in the aquatic environment and towards terrestrial vertebrates.

Supporting Data

Aquatic	Using EC_{50}'s for ingredients, the calculated EC_{50} for the mixture is between 1 and 100 mg/L. Data considered includes: Monoammonium phosphate no data, ammonium sulphate 48 mg/l (96hr, Catla catla), 81 - 130 mg/l (96hr, Crangon crangon (Crustacea)).
Bioaccumulation	No data
Degradability	No data
Soil	No consided ecotoxic in the soil environment.
Terrestrial vertebrate	The mixture has been classified by EPA as harmful to terrestrial vertebrates. Using LD_{50}'s for ingredients, the calculated LD50 (oral, rat) for the mixture is between 500 and 2,000 mg/kg. Data considered includes: Ammonium sulphate 640 mg/kg (mouse), 2840mg/kg (rat).
Terrestrial invertebrate	Not toxic towards terrestrial invertebrates
Biocidal	Not biocidal
Environmental effect levels	No EELs are available for this mixture or ingredients

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Rinse containers with water before disposal. Preferably re-cycle container, otherwise send to landfill or similar.

14. Transport Information

There are no specific restrictions for this product (not a dangerous good).

UN number:	NA	**Proper shipping name:**	NA
Class(es)	NA	**Packing group:**	NA
Precautions:	Not applicable.	**Hazchem code:**	NA

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002573, Fire Fighting Chemicals Group Standard 2006.

Specific Workplace Controls (as per HSNO approval referenced to Controls Matrix)

Key workplace requirements are:	
SDS	To be available within 10 minutes in workplaces storing any quantity.
Labelling	No removal of labels and/or decanting of product into other containers can occur.
Emergency plan	Required if > 1000kg is stored.
Approved handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 1000kg is stored.
Signage	Required if > 10000kg is stored.
Location test certificate	Not required.
Flammable zone	Not required.
Fire extinguisher	Not required.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health, Safety in Employment Act and Regulations, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	HSR002573, Fire Fighting Chemicals Group Standard 2006, Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC_{50}	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
ERMA	Environmental Risk Management Authority (now EPA)
EPA	Environmental Protection Agency (previously known as ERMA)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL	Lower Explosive Limit
LD_{50}	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC_{50}	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UEL	Upper Explosive Limit
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID) http://www.epa.govt.nz/hs/compliance/chemicals.html , for specific chemicals.
EPA Transfer Gazettes	Classifications and controls assigned for specific ingredients (consolidated gazette, 2004)
Controls Matrix	Part of the EPA New Zealand User Guide to the HSNO Control Regulations
WES 2013	The NZ Workplace Exposure Standards Effective from 2013, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz.
Other References:	Suppliers SDS

Review

Date	**Reason for review**
August 2014	Not applicable – new SDS

Disclaimer