

# SAFETY DATA SHEET



## FIRE RESTORE

### APPLIED PRODUCTS AUSTRALIA PTY LTD

Catalogue number: DR164.05

Version No: 5.1

Issue date: 24/05/2021

Safety Data Sheet according to WHS and ADG requirements

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

### Product Identifier

Product name	FIRE RESTORE
Product code	DR164.05
Pack size	5L

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

Relevant identified uses	Fire damage cleaner for resilient surfaces
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### Details of the manufacturer/importer

Registered company name	APPLIED PRODUCTS AUSTRALIA PTY LTD
Address	11 Gamma Close, Beresfield 2322 NSW Australia
Telephone	(02) 4966 5516
Website	www.actichem.com.au
Email	info@actichem.com.au

### Emergency telephone number

Association / Organisation	Poisons Information Centre
Emergency telephone numbers	13 11 26
Other emergency telephone numbers	Not Available

## SECTION 2 HAZARDS IDENTIFICATION

### Classification of the substance or mixture

HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the Model WHS Regulations and the ADG Code.

Poisons Schedule	6
GHS Classification	Skin Corrosion/Irritation Category 1B, Serious Eye Damage Category 1 <i>Classification drawn from HCIS and ECHA C&amp;L Inventory.</i>

### Label elements

Hazard pictogram	
SIGNAL WORD	DANGER

### Hazard statement(s)

H314	Causes severe skin burns and eye damage.
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### Precautionary statement(s) Prevention

P280	Wear protective gloves and eye protection.
P261	Avoid breathing mist, vapours or spray.
P273	Avoid release to the environment.

**Precautionary statement(s) Response**

P301+P310+P330+P331	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting.
P303+P310+P361+P353	IF ON SKIN (or hair): Immediately call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P310+P351+P338	IF IN EYES: Immediately call a POISON CENTRE or doctor. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P304+P310+P340	IF INHALED: Immediately call a POISON CENTER or doctor/physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P363	Wash contaminated clothing before reuse.

**Precautionary statement(s) Storage**

Not applicable

**Precautionary statement(s) Disposal**

P501	Dispose of contents/container in accordance with local government regulations
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**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS****Substances**

See section below for composition of Mixtures

**Mixtures**

CAS No	%[weight]	Name
7320-34-5	<10	<u>potassium pyrophosphate</u>
64-02-8	<10	<u>EDTA tetrasodium salt</u>
141-43-5	<10	<u>monoethanolamine</u>
111-76-2	<10	<u>ethylene glycol monobutyl ether</u>
9016-45-9	<10	<u>nonylphenol ethoxylated</u>

**SECTION 4 FIRST AID MEASURES****Description of first aid measures**

<b>Eye Contact</b>	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> <li>▶ Immediately hold eyelids apart and flush the eye continuously with running water.</li> <li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>▶ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.</li> <li>▶ If irritation persists get medical advice / attention.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
<b>Skin Contact</b>	<p>If skin or hair contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Immediately flush body and clothes with large amounts of water, using safety shower if necessary.</li> <li>▶ Quickly remove all contaminated clothing, including footwear.</li> <li>▶ Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. If irritation persists get medical advice / attention.</li> </ul>
<b>Inhalation</b>	<ul style="list-style-type: none"> <li>▶ Inhalation of spray or mist may cause respiratory irritation. If this occurs remove victim to fresh air.</li> <li>▶ If symptoms persist seek medical advice / attention.</li> </ul>
<b>Ingestion</b>	<ul style="list-style-type: none"> <li>▶ Immediately give a glass of water.</li> <li>▶ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul>

**Indication of any immediate medical attention and special treatment needed**

Treat patient symptomatically.

**SECTION 5 FIREFIGHTING MEASURES****Extinguishing media**

<b>Extinguishing media</b>	The product contains a substantial proportion of water, therefore there are no restrictions on the type of extinguishing media which may be used. Choice of extinguishing media should take into account surrounding areas.
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**Special hazards arising from the substrate or mixture**

<b>Fire Incompatibility</b>	None known.
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## Advice for firefighters

Fire Fighting	Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses. Use firefighting procedures suitable for surrounding area. <b>DO NOT</b> approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.
Fire/Explosion Hazard	Carbon dioxide (CO <sub>2</sub> ) and other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes
HAZCHEM	2X

## SECTION 6 ACCIDENTAL RELEASE MEASURES

## Personal precautions, protective equipment and emergency procedures

Minor Spills	▶ Wash away with copious amounts of water.
Major Spills	▶ Moderate environmental hazard - contain spillage. ▶ Absorb on sand, dirt, vermiculite or similar absorbent material. Place into labeled drums and dispose of according to local government regulations. ▶ Immediately notify emergency services (Police or Fire Brigade) if the spill is too large for you to safely and effectively handle.
PPE	Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 HANDLING AND STORAGE

## Precautions for safe handling

Safe handling	<ul style="list-style-type: none"> <li>▶ <b>DO NOT</b> allow clothing wet with material to stay in contact with skin</li> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Avoid contact with moisture.</li> <li>▶ Avoid contact with incompatible materials.</li> <li>▶ Keep containers securely sealed when not in use.</li> <li>▶ Avoid physical damage to containers.</li> <li>▶ Always wash hands with soap and water after handling.</li> <li>▶ Work clothes should be laundered separately.</li> </ul>
Other information	

## Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> <li>▶ Polyethylene or polypropylene container.</li> <li>▶ Packing as recommended by manufacturer.</li> <li>▶ Check all containers are clearly labelled and free from leaks.</li> </ul>
Storage incompatibility	▶ Avoid reaction with <b>acids</b> and <b>oxidising</b> agents

## PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

## Control parameters

## OCCUPATIONAL EXPOSURE LIMITS (OEL)

## INGREDIENT DATA


Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	monoethanolamine	Ethanolamine	3 ppm / 7.5 mg/m <sup>3</sup>	15 mg/m <sup>3</sup> / 6 ppm	Not Available	Not Available
Australia Exposure Standards	ethylene glycol monobutyl ether	Butoxyethanol, 2-; (Glycol ether EB)	20 ppm / 96.9 mg/m <sup>3</sup>	242 mg/m <sup>3</sup> / 50 ppm	Not Available	Not Available

## EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
potassium pyrophosphate	Potassium pyrophosphate; (Tetrapotassium diphosphate)	61 mg/m <sup>3</sup>	680 mg/m <sup>3</sup>	1200 mg/m <sup>3</sup>
EDTA tetrasodium salt	Ethylenediaminetetraacetic acid, tetrasodium salt; (Tetrasodium EDTA)	75 mg/m <sup>3</sup>	830 mg/m <sup>3</sup>	5000 mg/m <sup>3</sup>
monoethanolamine	Ethanolamine	6 ppm	170 ppm	1000 ppm
nonylphenol ethoxylates	Ethoxylated nonylphenol; (Nonyl phenyl polyethylene glycol ether)	43 mg/m <sup>3</sup>	470 mg/m <sup>3</sup>	5400 mg/m <sup>3</sup>
ethylene glycol monobutyl ether	Butoxyethanol, 2-; (Glycol ether EB)	60 ppm	120 ppm	700 ppm

Ingredient	Original IDLH	Revised IDLH
potassium pyrophosphate	Not Available	Not Available
EDTA tetrasodium salt	Not Available	Not Available
monoethanolamine	30 ppm	Not Available
nonylphenol ethoxylates	Not Available	Not Available
ethylene glycol monobutyl ether	Not Available	Not Available

#### Exposure controls

<b>Appropriate engineering controls</b>	Maintain adequate ventilation at all times. In most circumstances natural ventilation systems are adequate. If ventilation is poor, then the use of a local exhaust ventilation system is recommended.
<b>Personal protection</b>	
<b>Eye and face protection</b>	Chemical goggles. Full face shield may be required for supplementary but never for primary protection of eyes. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.
<b>Skin protection</b>	See Hand protection below
<b>Hands/feet protection</b>	Wear chemical protective gloves, e.g. Butyl or PVC..
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	Overalls. P.V.C. apron. Barrier cream. Skin cleansing cream. Eye wash unit.
<b>Thermal hazards</b>	Not Available

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

<b>Appearance</b>	Clear blue liquid		
<b>Physical state</b>	Liquid	<b>Relative density (Water = 1)</b>	Not Available
<b>Odour</b>	Mild pine odour	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	Not Available
<b>pH (as supplied)</b>	12.8	<b>Decomposition temperature</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (cSt)</b>	Not Available
<b>Initial boiling point and boiling range (°C)</b>	Not Available	<b>Molecular weight (g/mol)</b>	Not Available
<b>Flash point (°C)</b>	Not Applicable	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	Not Available	<b>Explosive properties</b>	Not Available
<b>Flammability</b>	Not Applicable	<b>Oxidising properties</b>	Not Available
<b>Upper Explosive Limit (%)</b>	Not Applicable	<b>Surface Tension (dyn/cm or mN/m)</b>	Not Available
<b>Lower Explosive Limit (%)</b>	Not Applicable	<b>Volatile Component (%vol)</b>	Not Available
<b>Vapour pressure (kPa)</b>	Not Available	<b>Gas group</b>	Not Available
<b>Solubility in water (g/L)</b>	Miscible	<b>pH as a solution (1%)</b>	Not Available
<b>Vapour density (Air = 1)</b>	Not Available	<b>VOC g/L</b>	Not Available

## SECTION 10 STABILITY AND REACTIVITY

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

## SECTION 11 TOXICOLOGICAL INFORMATION

## Information on toxicological effects

Inhaled	The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. The material has <b>NOT</b> been classified by EC Directives or other classification systems as 'harmful by inhalation'. This is because of the lack of corroborating animal or human evidence.
Ingestion	The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion.
Skin Contact	The material can produce chemical burns following direct contact with the skin. Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions 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	If applied to the eyes, this material causes severe eye damage. Direct eye contact with corrosive bases can cause pain and burns. There may be swelling, epithelium destruction, clouding of the cornea and inflammation of the iris. Mild cases often resolve; severe cases can be prolonged with complications such as persistent swelling, scarring, permanent cloudiness, bulging of the eye, cataracts, eyelids glued to the eyeball and blindness.
Chronic	Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general

## Toxicological effects of ingredients

<b>Tetrapotassium pyrophosphate</b>	Acute toxicity	Oral LD50 (rabbit) >1000 mg/kg Dermal LD50 (rabbit) >4640 mg/kg
	Skin corrosion/irritation	Causes skin irritation. Irritation is likely to be more severe if the skin is moist or wet
	Eye damage/irritation	Causes serious eye irritation
	Respiratory/skin sensitization	EU/CLP • Classification criteria not met
	Germ cell mutagenicity	EU/CLP • Classification criteria not met
	Carcinogenicity	Does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens
	Reproductive toxicity	EU/CLP • Classification criteria not met
	STOT (single exposure)	EU/CLP • Classification criteria not met
	STOT (repeated exposure)	EU/CLP • Classification criteria not met
	Aspiration toxicity	EU/CLP • Classification criteria not met
<b>EDTA tetrasodium salt</b>	Acute toxicity	Oral LD50 (rat): >1780 - <2000 mg/kg
	Skin corrosion/irritation	Contact with skin may result in irritation
	Eye damage/irritation	Irritant (rabbit).
	Respiratory/skin sensitization	Not sensitizing
	Germ cell mutagenicity	No adverse effect observed
	Carcinogenicity	Not listed as carcinogenic according to the International Agency for Research on Cancer (IARC).
	Reproductive toxicity	No Data Available
	STOT (single exposure)	No Data Available
	STOT (repeated exposure)	No Data Available
	Aspiration toxicity	No Data Available
<b>monoethanolamine</b>	Acute toxicity	Oral LD50 (rat) 1089 mg/kg Dermal LD50 (rat) 2504 mg/kg Inhalation LC50 >1300mg/m3 6h
	Skin corrosion/irritation	Causes severe skin burns and eye damage.
	Eye damage/irritation	Causes serious eye damage
	Respiratory/skin sensitization	No sensitizing effect
	Germ cell mutagenicity	The substance was not genotoxic in a test with mammals
	Carcinogenicity	Not carcinogenic
	Reproductive toxicity	Not classified
	STOT (single exposure)	May cause respiratory irritation
	STOT (repeated exposure)	The substance may cause damage to the upper respiratory tract after repeated inhalation, as shown in animal studies
	Aspiration toxicity	No aspiration hazard expected
<b>nonylphenol ethoxylates</b>	Acute toxicity	Oral LD50 (mouse) 4290 mg/kg
	Skin corrosion/irritation	moderate to severe irritation.
	Eye damage/irritation	moderate to severe irritation
	Respiratory/skin sensitization	Not sensitizing
	Germ cell mutagenicity	Not genotoxic
	Carcinogenicity	No Data Available
	Reproductive toxicity	No Data Available
	STOT (single exposure)	No Data Available
	STOT (repeated exposure)	No Data Available
	Aspiration toxicity	No Data Available
<b>ethylene glycol monobutyl ether</b>	Acute toxicity	Oral LD50 (guinea pig) 1414 mg/kg Dermal LD50 (guinea pig) >2000 mg/kg Inhalation LCO >3.1 mg/l/641 ppm 1h
	Skin corrosion/irritation	Causes skin irritation.
	Eye damage/irritation	Causes serious eye irritation.
	Respiratory/skin sensitization	Not classified No study available.
	Germ cell mutagenicity	Not classified
	Carcinogenicity	Not classified
	Reproductive toxicity	Not classified
	STOT (single exposure)	High concentrations may cause central nervous system depression
	STOT (repeated exposure)	Based on repeated exposure toxicity values, not classified
	Aspiration toxicity	Based on physico-chemical values or lack of human evidence, not classified

## SECTION 12 ECOLOGICAL INFORMATION

## Toxicity

	Endpoint	Duration (Hr.)	Species	Value
potassium pyrophosphate	LC50	96	Fish	>100mg/L
	EC50	48	Crustacea	>100mg/L
	EC50	72	Algae or other aquatic plants	>100mg/L
	NOEC	72	Algae or other aquatic plants	>100mg/L

<b>EDTA tetrasodium salt</b>	LC50	96	Fish	41mg/L
	EC50	48	Crustacea	140mg/L
	EC50	72	Algae or other aquatic plants	=1.01mg/L
	EC10	72	Algae or other aquatic plants	=0.48mg/L
	NOEC	33	Algae or other aquatic plants	0.0003802-mg/L
<b>monoethanolamine</b>	LC50	96	Fish	>100mg/L
	EC50	48	Crustacea	32.6mg/L
	EC50	72	Algae or other aquatic plants	2.1mg/L
	NOEC	504	Crustacea	0.85mg/L
<b>nonylphenol ethoxylates</b>	NOEC	36.5	Fish	0.0001-mg/L
<b>ethylene glycol monobutyl ether</b>	LC50	96	Fish	1250-mg/L
	EC50	48	Crustacea	164mg/L
	EC50	72	Algae or other aquatic plants	623mg/L
	NOEL	336	Not Available	49.50000-mg/L

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high watermark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

**DO NOT discharge into sewer or waterways.**

#### Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
monoethanolamine	LOW	LOW
ethylene glycol monobutyl ether	LOW (Half-life = 56 days)	LOW (Half-life = 1.37 days)

#### Bio accumulative potential

Ingredient	Bioaccumulation
monoethanolamine	LOW (LogKOW = -1.31)
nonylphenol ethoxylates	LOW (BCF = 1.4)
ethylene glycol monobutyl ether	LOW (BCF = 2.51)

#### Mobility in soil

Ingredient	Mobility
monoethanolamine	HIGH (KOC = 1)
ethylene glycol monobutyl ether	HIGH (KOC = 1)

### SECTION 13 DISPOSAL CONSIDERATIONS

#### Waste treatment methods

<b>Product/packaging disposal</b>	Recycle container whenever possible Dispose of product and containers in accordance with local government regulations
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### SECTION 14 TRANSPORT INFORMATION

#### Labels Required

<b>Marine Pollutant</b>	NO
<b>HAZCHEM</b>	2X

Land transport (ADG): NOT REGULATED FOR THE TRANSPORTATION OF DANGEROUS GOODS IN PACK SIZES OF 5L OR LESS.

### SECTION 15 REGULATORY INFORMATION

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

##### POTASSIUM PYROPHOSPHATE IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australian Inventory of Industrial Chemicals (AIIC)

##### EDTA TETRASODIUM SALT IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4  
Australian Inventory of Industrial Chemicals (AIIC)

##### MONOETHANOLAMINE IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6  
Australian Inventory of Industrial Chemicals (AIIC)

##### NONYLPHENOL ETHOXYLATES IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australian Inventory of Industrial Chemicals (AIIC)  
Chemical Footprint Project - Chemicals of High Concern List

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**ETHYLENE GLYCOL MONOBUTYL ETHER IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6  
Australian Inventory of Industrial Chemicals (AIIC)  
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

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**SECTION 16 OTHER INFORMATION**

**Revision Schedule**

<b>Revision Date</b>	15/12/2020
<b>Initial Date</b>	08/12/2016

**SDS Version Summary**

<b>Version</b>	<b>Issue Date</b>	<b>Sections Updated</b>
5.1	15/12/2020	Sections 2,3,5,8,11,12,15,16 have been updated or corrected

**Other information**

Classification of the preparation and its individual components has drawn on official and authoritative sources such as the ECHA C&L Chemical Inventory, HSNO (CCID) New Zealand, NICNAS and HCIS Australia

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**End of SDS**

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## FIRE RESTORE

### APPLIED PRODUCTS AUSTRALIA PTY LTD

Catalogue number: DR164.20

Version No: 5.1

Issue date: 24/05/2021

Safety Data Sheet according to WHS and ADG requirements

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

### Product Identifier

Product name	FIRE RESTORE
Product code	DR164.20
Pack size	20L
UN proper shipping name	ETHANOLAMINE SOLUTION

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

Relevant identified uses	Fire damage cleaner for resilient surfaces
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### Details of the manufacturer/importer

Registered company name	APPLIED PRODUCTS AUSTRALIA PTY LTD
Address	11 Gamma Close, Beresfield 2322 NSW Australia
Telephone	(02) 4966 5516
Website	www.actichem.com.au
Email	info@actichem.com.au

### Emergency telephone number

Association / Organisation	Poisons Information Centre
Emergency telephone numbers	13 11 26
Other emergency telephone numbers	Not Available

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Poisons Schedule	6
GHS Classification	Skin Corrosion/Irritation Category 1B, Serious Eye Damage Category 1 <i>Classification drawn from HCIS and ECHA C&amp;L Inventory.</i>

### Label elements

Hazard pictogram	
SIGNAL WORD	DANGER

### Hazard statement(s)

H314	Causes severe skin burns and eye damage.
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### Precautionary statement(s) Prevention

P280	Wear protective gloves and eye protection.
P261	Avoid breathing mist, vapours or spray.
P273	Avoid release to the environment.



**Precautionary statement(s) Response**

P301+P310+P330+P331	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting.
P303+P310+P361+P353	IF ON SKIN (or hair): Immediately call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P310+P351+P338	IF IN EYES: Immediately call a POISON CENTRE or doctor. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P304+P310+P340	IF INHALED: Immediately call a POISON CENTER or doctor/physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P363	Wash contaminated clothing before reuse.

**Precautionary statement(s) Storage**

Not applicable

**Precautionary statement(s) Disposal**

P501	Dispose of contents/container in accordance with local government regulations
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**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS****Substances**

See section below for composition of Mixtures

**Mixtures**

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64-02-8	<10	<u>EDTA tetrasodium salt</u>
141-43-5	<10	<u>monoethanolamine</u>
111-76-2	<10	<u>ethylene glycol monobutyl ether</u>
9016-45-9	<10	<u>nonylphenol ethoxylated</u>

**SECTION 4 FIRST AID MEASURES****Description of first aid measures**

<b>Eye Contact</b>	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> <li>▶ Immediately hold eyelids apart and flush the eye continuously with running water.</li> <li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>▶ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.</li> <li>▶ If irritation persists get medical advice / attention.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
<b>Skin Contact</b>	<p>If skin or hair contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Immediately flush body and clothes with large amounts of water, using safety shower if necessary.</li> <li>▶ Quickly remove all contaminated clothing, including footwear.</li> <li>▶ Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. If irritation persists get medical advice / attention.</li> </ul>
<b>Inhalation</b>	<ul style="list-style-type: none"> <li>▶ Inhalation of spray or mist may cause respiratory irritation. If this occurs remove victim to fresh air.</li> <li>▶ If symptoms persist seek medical advice / attention.</li> </ul>
<b>Ingestion</b>	<ul style="list-style-type: none"> <li>▶ Immediately give a glass of water.</li> <li>▶ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul>

**Indication of any immediate medical attention and special treatment needed**

Treat patient symptomatically.

**SECTION 5 FIREFIGHTING MEASURES****Extinguishing media**

<b>Extinguishing media</b>	The product contains a substantial proportion of water, therefore there are no restrictions on the type of extinguishing media which may be used. Choice of extinguishing media should take into account surrounding areas.
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**Special hazards arising from the substrate or mixture**

<b>Fire Incompatibility</b>	None known.
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## Advice for firefighters

Fire Fighting	Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses. Use firefighting procedures suitable for surrounding area. <b>DO NOT</b> approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.
Fire/Explosion Hazard	Carbon dioxide (CO <sub>2</sub> ) and other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes
HAZCHEM	2X

## SECTION 6 ACCIDENTAL RELEASE MEASURES

## Personal precautions, protective equipment and emergency procedures

Minor Spills	▶ Wash away with copious amounts of water.
Major Spills	▶ Moderate environmental hazard - contain spillage. ▶ Absorb on sand, dirt, vermiculite or similar absorbent material. Place into labeled drums and dispose of according to local government regulations. ▶ Immediately notify emergency services (Police or Fire Brigade) if the spill is too large for you to safely and effectively handle.
PPE	Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 HANDLING AND STORAGE

## Precautions for safe handling

Safe handling	<ul style="list-style-type: none"> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Avoid contact with moisture.</li> <li>▶ Avoid contact with incompatible materials.</li> <li>▶ Keep containers securely sealed when not in use.</li> <li>▶ Avoid physical damage to containers.</li> <li>▶ Always wash hands with soap and water after handling.</li> <li>▶ Work clothes should be laundered separately.</li> </ul>
Other information	

## Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> <li>▶ Polyethylene or polypropylene container.</li> <li>▶ Packing as recommended by manufacturer.</li> <li>▶ Check all containers are clearly labelled and free from leaks.</li> </ul>
Storage incompatibility	▶ Avoid reaction with <b>acids</b> and <b>oxidising</b> agents

## PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

## Control parameters

## OCCUPATIONAL EXPOSURE LIMITS (OEL)

## INGREDIENT DATA


Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	monoethanolamine	Ethanolamine	3 ppm / 7.5 mg/m <sup>3</sup>	15 mg/m <sup>3</sup> / 6 ppm	Not Available	Not Available
Australia Exposure Standards	ethylene glycol monobutyl ether	Butoxyethanol, 2-; (Glycol ether EB)	20 ppm / 96.9 mg/m <sup>3</sup>	242 mg/m <sup>3</sup> / 50 ppm	Not Available	Not Available

## EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
potassium pyrophosphate	Potassium pyrophosphate; (Tetrapotassium diphosphate)	61 mg/m <sup>3</sup>	680 mg/m <sup>3</sup>	1200 mg/m <sup>3</sup>
EDTA tetrasodium salt	Ethylenediaminetetraacetic acid, tetrasodium salt; (Tetrasodium EDTA)	75 mg/m <sup>3</sup>	830 mg/m <sup>3</sup>	5000 mg/m <sup>3</sup>
monoethanolamine	Ethanolamine	6 ppm	170 ppm	1000 ppm
nonylphenol ethoxylates	Ethoxylated nonylphenol; (Nonyl phenyl polyethylene glycol ether)	43 mg/m <sup>3</sup>	470 mg/m <sup>3</sup>	5400 mg/m <sup>3</sup>
ethylene glycol monobutyl ether	Butoxyethanol, 2-; (Glycol ether EB)	60 ppm	120 ppm	700 ppm

Ingredient	Original IDLH	Revised IDLH
potassium pyrophosphate	Not Available	Not Available
EDTA tetrasodium salt	Not Available	Not Available
monoethanolamine	30 ppm	Not Available
nonylphenol ethoxylates	Not Available	Not Available
ethylene glycol monobutyl ether	Not Available	Not Available

#### Exposure controls

<b>Appropriate engineering controls</b>	Maintain adequate ventilation at all times. In most circumstances natural ventilation systems are adequate. If ventilation is poor, then the use of a local exhaust ventilation system is recommended.
<b>Personal protection</b>	
<b>Eye and face protection</b>	Chemical goggles. Full face shield may be required for supplementary but never for primary protection of eyes. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.
<b>Skin protection</b>	See Hand protection below
<b>Hands/feet protection</b>	Wear chemical protective gloves, e.g. Butyl or PVC..
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	Overalls. P.V.C. apron. Barrier cream. Skin cleansing cream. Eye wash unit.
<b>Thermal hazards</b>	Not Available

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

Appearance	Clear blue liquid		
<b>Physical state</b>	Liquid	<b>Relative density (Water = 1)</b>	Not Available
<b>Odour</b>	Mild pine odour	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	Not Available
<b>pH (as supplied)</b>	12.8	<b>Decomposition temperature</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (cSt)</b>	Not Available
<b>Initial boiling point and boiling range (°C)</b>	Not Available	<b>Molecular weight (g/mol)</b>	Not Available
<b>Flash point (°C)</b>	Not Applicable	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	Not Available	<b>Explosive properties</b>	Not Available
<b>Flammability</b>	Not Applicable	<b>Oxidising properties</b>	Not Available
<b>Upper Explosive Limit (%)</b>	Not Applicable	<b>Surface Tension (dyn/cm or mN/m)</b>	Not Available
<b>Lower Explosive Limit (%)</b>	Not Applicable	<b>Volatile Component (%vol)</b>	Not Available
<b>Vapour pressure (kPa)</b>	Not Available	<b>Gas group</b>	Not Available
<b>Solubility in water (g/L)</b>	Miscible	<b>pH as a solution (1%)</b>	Not Available
<b>Vapour density (Air = 1)</b>	Not Available	<b>VOC g/L</b>	Not Available

## SECTION 10 STABILITY AND REACTIVITY

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

## SECTION 11 TOXICOLOGICAL INFORMATION

## Information on toxicological effects

Inhaled	The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. The material has <b>NOT</b> been classified by EC Directives or other classification systems as 'harmful by inhalation'. This is because of the lack of corroborating animal or human evidence.
Ingestion	The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion.
Skin Contact	The material can produce chemical burns following direct contact with the skin. Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions 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	If applied to the eyes, this material causes severe eye damage. Direct eye contact with corrosive bases can cause pain and burns. There may be swelling, epithelium destruction, clouding of the cornea and inflammation of the iris. Mild cases often resolve; severe cases can be prolonged with complications such as persistent swelling, scarring, permanent cloudiness, bulging of the eye, cataracts, eyelids glued to the eyeball and blindness.
Chronic	Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general

## Toxicological effects of ingredients

<b>Tetrapotassium pyrophosphate</b>	Acute toxicity	Oral LD50 (rabbit) >1000 mg/kg Dermal LD50 (rabbit) >4640 mg/kg
	Skin corrosion/irritation	Causes skin irritation. Irritation is likely to be more severe if the skin is moist or wet
	Eye damage/irritation	Causes serious eye irritation
	Respiratory/skin sensitization	EU/CLP • Classification criteria not met
	Germ cell mutagenicity	EU/CLP • Classification criteria not met
	Carcinogenicity	Does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens
	Reproductive toxicity	EU/CLP • Classification criteria not met
	STOT (single exposure)	EU/CLP • Classification criteria not met
	STOT (repeated exposure)	EU/CLP • Classification criteria not met
	Aspiration toxicity	EU/CLP • Classification criteria not met
<b>EDTA tetrasodium salt</b>	Acute toxicity	Oral LD50 (rat): >1780 - <2000 mg/kg
	Skin corrosion/irritation	Contact with skin may result in irritation
	Eye damage/irritation	Irritant (rabbit).
	Respiratory/skin sensitization	Not sensitizing
	Germ cell mutagenicity	No adverse effect observed
	Carcinogenicity	Not listed as carcinogenic according to the International Agency for Research on Cancer (IARC).
	Reproductive toxicity	No Data Available
	STOT (single exposure)	No Data Available
	STOT (repeated exposure)	No Data Available
	Aspiration toxicity	No Data Available
<b>monoethanolamine</b>	Acute toxicity	Oral LD50 (rat) 1089 mg/kg Dermal LD50 (rat) 2504 mg/kg Inhalation LC50 >1300mg/m3 6h
	Skin corrosion/irritation	Causes severe skin burns and eye damage.
	Eye damage/irritation	Causes serious eye damage
	Respiratory/skin sensitization	No sensitizing effect
	Germ cell mutagenicity	The substance was not genotoxic in a test with mammals
	Carcinogenicity	Not carcinogenic
	Reproductive toxicity	Not classified
	STOT (single exposure)	May cause respiratory irritation
	STOT (repeated exposure)	The substance may cause damage to the upper respiratory tract after repeated inhalation, as shown in animal studies
	Aspiration toxicity	No aspiration hazard expected
<b>nonylphenol ethoxylates</b>	Acute toxicity	Oral LD50 (mouse) 4290 mg/kg
	Skin corrosion/irritation	moderate to severe irritation.
	Eye damage/irritation	moderate to severe irritation
	Respiratory/skin sensitization	Not sensitizing
	Germ cell mutagenicity	Not genotoxic
	Carcinogenicity	No Data Available
	Reproductive toxicity	No Data Available
	STOT (single exposure)	No Data Available
	STOT (repeated exposure)	No Data Available
	Aspiration toxicity	No Data Available
<b>ethylene glycol monobutyl ether</b>	Acute toxicity	Oral LD50 (guinea pig) 1414 mg/kg Dermal LD50 (guinea pig) >2000 mg/kg Inhalation LCO >3.1 mg/l/641 ppm 1h
	Skin corrosion/irritation	Causes skin irritation.
	Eye damage/irritation	Causes serious eye irritation.
	Respiratory/skin sensitization	Not classified No study available.
	Germ cell mutagenicity	Not classified
	Carcinogenicity	Not classified
	Reproductive toxicity	Not classified
	STOT (single exposure)	High concentrations may cause central nervous system depression
	STOT (repeated exposure)	Based on repeated exposure toxicity values, not classified
	Aspiration toxicity	Based on physico-chemical values or lack of human evidence, not classified

## SECTION 12 ECOLOGICAL INFORMATION

## Toxicity

	Endpoint	Duration (Hr.)	Species	Value
potassium pyrophosphate	LC50	96	Fish	>100mg/L
	EC50	48	Crustacea	>100mg/L
	EC50	72	Algae or other aquatic plants	>100mg/L
	NOEC	72	Algae or other aquatic plants	>100mg/L

EDTA tetrasodium salt	LC50	96	Fish	41mg/L
	EC50	48	Crustacea	140mg/L
	EC50	72	Algae or other aquatic plants	=1.01mg/L
	EC10	72	Algae or other aquatic plants	=0.48mg/L
	NOEC	33	Algae or other aquatic plants	0.0003802-mg/L
monoethanolamine	LC50	96	Fish	>100mg/L
	EC50	48	Crustacea	32.6mg/L
	EC50	72	Algae or other aquatic plants	2.1mg/L
	NOEC	504	Crustacea	0.85mg/L
nonylphenol ethoxylates	NOEC	36.5	Fish	0.0001-mg/L
ethylene glycol monobutyl ether	LC50	96	Fish	1250-mg/L
	EC50	48	Crustacea	164mg/L
	EC50	72	Algae or other aquatic plants	623mg/L
	NOEL	336	Not Available	49.50000-mg/L

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high watermark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

**DO NOT discharge into sewer or waterways.**

#### Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
monoethanolamine	LOW	LOW
ethylene glycol monobutyl ether	LOW (Half-life = 56 days)	LOW (Half-life = 1.37 days)

#### Bio accumulative potential

Ingredient	Bioaccumulation
monoethanolamine	LOW (LogKOW = -1.31)
nonylphenol ethoxylates	LOW (BCF = 1.4)
ethylene glycol monobutyl ether	LOW (BCF = 2.51)

#### Mobility in soil

Ingredient	Mobility
monoethanolamine	HIGH (KOC = 1)
ethylene glycol monobutyl ether	HIGH (KOC = 1)

### SECTION 13 DISPOSAL CONSIDERATIONS

#### Waste treatment methods

Product/packaging disposal	Recycle container whenever possible Dispose of product and containers in accordance with local government regulations
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### SECTION 14 TRANSPORT INFORMATION

#### Labels Required

	
Marine Pollutant	NO
HAZCHEM	2X

#### Land transport (ADG):

UN Number	2491	
UN proper shipping name	ETHANOLAMINE SOLUTION	
Transport hazard class(es)	Class	8
	Sub risk	Not applicable
Packing group	III	
Environmental Hazard	Not applicable	
Special precautions for user	Special provisions	223
	Limited quantity	5L

## SECTION 15 REGULATORY INFORMATION

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

#### POTASSIUM PYROPHOSPHATE IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australian Inventory of Industrial Chemicals (AIIC)

#### EDTA TETRASODIUM SALT IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4  
Australian Inventory of Industrial Chemicals (AIIC)

#### MONOETHANOLAMINE IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6  
Australian Inventory of Industrial Chemicals (AIIC)

#### NONYLPHENOL ETHOXYLATES IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australian Inventory of Industrial Chemicals (AIIC)  
Chemical Footprint Project - Chemicals of High Concern List

#### ETHYLENE GLYCOL MONOBUTYL ETHER IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6  
Australian Inventory of Industrial Chemicals (AIIC)  
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

## SECTION 16 OTHER INFORMATION

### Revision Schedule

Revision Date	15/12/2020
Initial Date	08/12/2016

### SDS Version Summary

Version	Issue Date	Sections Updated
5.1	15/12/2020	Sections 2,3,5,8,11,12,15,16 have been updated or corrected

### Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources such as the ECHA C&L Chemical Inventory, HSNO (CCID) New Zealand, NICNAS and HCIS Australia

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