

SAFETY DATA SHEET



T&G CLEANER LF

APPLIED PRODUCTS AUSTRALIA PTY LTD

Catalogue number: AP167.05

Version No: 2.1

Issue date: 16/12/2020

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	T&G CLEANER LF
Product code	AP167.05
Pack size	5L

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

Relevant identified uses	Stone and tile cleaning detergent – Low foam
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Details of the supplier of the safety data sheet

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 1126
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&L Inventory.</i>

Label elements

GHS label elements	
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SIGNAL WORD	DANGER
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Hazard statement(s)

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

P260	Do not breathe mist / vapours / spray.
P280	Wear protective gloves / protective clothing / eye protection / face protection.
P264	Wash contaminated skin thoroughly after handling

Precautionary statement(s) Response

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

Precautionary statement(s) Storage

P405	Store locked up
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Precautionary statement(s) Disposal

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

See section below for composition of Mixtures.

Mixtures

CAS No	%[weight]	Name
141-43-5	<10	<u>Monoethanolamine</u>
64-02-8	<10	<u>EDTA tetrasodium salt</u>
7320-34-5	<10	<u>potassium pyrophosphate</u>
111-76-2	10-30	<u>ethylene glycol monobutyl ether</u>

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

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

Eye Contact	<p>If this product comes in contact with the eyes:</p> <p>Seek medical advice / attention without delay.</p> <p>Immediately hold eyelids apart and flush the eye continuously with running water.</p> <p>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.</p> <p>Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.</p> <p>If necessary, transport to hospital or doctor without delay.</p> <p>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</p>
Skin Contact	<p>If skin or hair contact occurs:</p> <p>Seek medical advice / attention without delay.</p> <p>Immediately flush body and clothes with large amounts of water, using safety shower if available.</p> <p>Quickly remove all contaminated clothing, including footwear.</p> <p>Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre.</p> <p>If necessary, transport to hospital, or doctor.</p>
Inhalation	<p>If fumes or combustion products are inhaled remove from contaminated area.</p> <p>Lay patient down. Keep warm and rested.</p> <p>Seek medical advice / attention without delay.</p> <p>Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</p> <p>Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</p> <p>If necessary, transport to hospital, or doctor, without delay.</p>
Ingestion	<p>For advice, contact a Poisons Information Centre or a doctor at once.</p> <p>Urgent hospital treatment is likely to be needed.</p> <p>If swallowed do NOT induce vomiting.</p> <p>If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</p> <p>Observe the patient carefully.</p> <p>Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</p> <p>Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</p> <p>Transport to hospital or doctor without delay.</p>

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES**Extinguishing media**

Extinguishing media	There is no restriction on the type of extinguisher that may be used. Use extinguisher that is suitable for the surrounding area
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Special hazards arising from the substrate or mixture.

Fire incompatibilities	Avoid contamination with oxidising agents and strong acids.
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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. DO NOT 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	Combustion may release toxic fumes of carbon dioxide (CO ₂), hydrogen chloride, phosgene, nitrogen oxides (NO _x), and other pyrolysis products typical of burning organic material May emit corrosive fumes.
HAZCHEM	Not applicable

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills	Clean up all spills immediately. Avoid breathing vapours/ aerosols/ or dusts and avoid contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Place in a suitable, labelled container for waste disposal.
Major Spills	Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. Stop leak if safe to do so. Absorb on sand, dirt, vermiculite or similar absorbent material. Place into labelled 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 this SDS

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	DO NOT allow clothing wet with material to stay in contact with skin Avoid all personal contact. Wear protective clothing when risk of exposure occurs. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers.
Other information	

Conditions for safe storage, including any incompatibilities

Suitable containers	Do not use aluminium or galvanised containers Plastic pail Packaging as recommended by the manufacturer
Storage incompatibility	Check all containers are clearly labelled and free from leaks. Avoid strong acids Avoid reaction with oxidising agents.

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	75mg / m ³ / 3 ppm	15 mg/m ³ / 6 ppm	Not available	Not available
Australia Exposure Standards	ethylene glycol monobutyl ether	Butoxyethanol, 2-; (Glycol ether EB)	20 ppm / 96.9 mg/m ³	242 mg/m ³ / 50 ppm	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
Monoethanolamine	Monoethanolamine	6 ppm	6 ppm	1000 ppm
EDTA tetrasodium salt	Ethylenediaminetetraacetic acid, tetrasodium salt; (Tetrasodium EDTA)	75 mg/m ³	830 mg/m ³	5000 mg/m ³
potassium pyrophosphate	Potassium pyrophosphate; (Tetrapotassium diphosphate)	61 mg/m ³	680 mg/m ³	1200 mg/m ³
ethylene glycol monobutyl ether	Butoxyethanol, 2-; (Glycol ether EB)	60 ppm	120 ppm	700 ppm

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

Exposure controls

Appropriate engineering controls	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.
Personal protection	
Eye and face protection	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. 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.
Skin protection	See Hand protection below
Hands/feet protection	Elbow length chemical gloves. Butyl, PE/EVAL/PE or Saranex 23 are recommended for this application.
Body protection	Overalls When handling corrosive liquids it is good practice to wear overall legs outside of boots to prevent liquids entering boots.
Other protection	P.V.C. apron. Barrier cream. Skin cleansing cream. Eye wash unit.
Thermal hazards	Not Available

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

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

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	Product is considered stable and 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	The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage cause further lung damage.
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. 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	The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating. If applied to the eyes, this material causes severe eye damage.
Chronic	Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

Toxicological effects of ingredients

Tetrapotassium pyrophosphate	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	
EDTA tetrasodium salt	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	
monoethanolamine	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	
ethylene glycol monobutyl ether	Acute toxicity	Oral LD50 (guinea pig) 1414 mg/kg Dermal LD50 (guinea pig) >2000 mg/kg Inhalation LC0 >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
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

On the basis of available evidence concerning either toxicity, persistence, potential to accumulate and or observed environmental fate and behaviour, the material may present a danger, immediate or long-term and /or delayed, to the structure and/ or functioning of natural ecosystems.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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)
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

Disposal of product / packaging	Recycle containers whenever possible. Product residues and containers should be disposed of in accordance with local government regulations
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SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (Not Applicable): NOT REGULATED FOR TRANSPORT 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)

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	16/12/2020/2020
Initial Date	18/11/2016

SDS Version Summary

Version	Issue Date	Sections Updated
2.1	16/12/2020	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

DISCLAIMER: While the information in this Safety Data Sheet (SDS) is believed to be true and accurate based on the current level of knowledge available to us, the author makes no representations as to its accuracy or sufficiency. Conditions of use are beyond the control of APPLIED PRODUCTS AUSTRALIA PTY LTD and therefore the users are responsible to verify this data under their own particular conditions of use, applications and regulations to determine whether the product is suitable for their particular purpose and they assume all risks of their use, handling, disposal, reliance upon, publication or use of the information contained herein. This information applies only to the product designated above and does not necessarily apply to its use in combination with other materials, products, chemical compounds, structures, or processes

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 Government Industrial Hygienists
STEL:	Short Term Exposure Limit
TEEL:	Temporary Emergency Exposure Limit
IDLH:	Immediate Danger to Life or Health Concentrations
OSF:	Odour Safety Factor
NOAEL:	No Observed Effects Level
TLV:	Threshold Limit Value
LOD:	Limit of Detection
OTV:	Odour Threshold Value
BCF:	Bio Concentration Factors
BEI:	Biological Exposure Index

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End of SDS

SAFETY DATA SHEET



T&G CLEANER LF

APPLIED PRODUCTS AUSTRALIA PTY LTD

Catalogue number: AP167.15

Version No: 2.1

Issue date: 16/12/2020

Safety Data Sheet according to WHS and ADG requirements

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Product Identifier

Product name	T&G CLEANER LF
Product code	AP167.15
Pack size	5L
UN proper shipping name	ETHANOLAMINE SOLUTION

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

Relevant identified uses	Stone and tile cleaning detergent – Low foam
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HAZCHEM	2X

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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	75mg / m ³ / 3 ppm	15 mg/m ³ / 6 ppm	Not available	Not available
Australia Exposure Standards	ethylene glycol monobutyl ether	Butoxyethanol, 2-; (Glycol ether EB)	20 ppm / 96.9 mg/m ³	242 mg/m ³ / 50 ppm	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
Monoethanolamine	Monoethanolamine	6 ppm	6 ppm	1000 ppm
EDTA tetrasodium salt	Ethylenediaminetetraacetic acid, tetrasodium salt; (Tetrasodium EDTA)	75 mg/m ³	830 mg/m ³	5000 mg/m ³
potassium pyrophosphate	Potassium pyrophosphate; (Tetrapotassium diphosphorate)	61 mg/m ³	680 mg/m ³	1200 mg/m ³
ethylene glycol monobutyl ether	Butoxyethanol, 2-; (Glycol ether EB)	60 ppm	120 ppm	700 ppm

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

Exposure controls

Appropriate engineering controls	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.
Personal protection	
Eye and face protection	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. 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.
Skin protection	See Hand protection below
Hands/feet protection	Elbow length chemical gloves. Butyl, PE/EVAL/PE or Saranex 23 are recommended for this application.
Body protection	Overalls When handling corrosive liquids it is good practice to wear overall legs outside of boots to prevent liquids entering boots.
Other protection	P.V.C. apron. Barrier cream. Skin cleansing cream. Eye wash unit.
Thermal hazards	Not Available

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

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

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	Product is considered stable and 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	The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage cause further lung damage.
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. 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	The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating. If applied to the eyes, this material causes severe eye damage.
Chronic	Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

Toxicological effects of ingredients

Tetrapotassium pyrophosphate	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	
EDTA tetrasodium salt	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	
monoethanolamine	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	
ethylene glycol monobutyl ether	Acute toxicity	Oral LD50 (guinea pig) 1414 mg/kg Dermal LD50 (guinea pig) >2000 mg/kg Inhalation LC0 >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
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

On the basis of available evidence concerning either toxicity, persistence, potential to accumulate and or observed environmental fate and behaviour, the material may present a danger, immediate or long-term and /or delayed, to the structure and/ or functioning of natural ecosystems.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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)
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

Disposal of product / packaging	Recycle containers whenever possible. Product residues and containers should be disposed of 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)

Product Code: AP167.15
Version No: 2.1

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	16/12/2020/2020
Initial Date	18/11/2016

SDS Version Summary

Version	Issue Date	Sections Updated
2.1	16/12/2020	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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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 Government Industrial Hygienists
STEL:	Short Term Exposure Limit
TEEL:	Temporary Emergency Exposure Limit
IDLH:	Immediate Danger to Life or Health Concentrations
OSF:	Odour Safety Factor
NOAEL:	No Observed Effects Level
TLV:	Threshold Limit Value
LOD:	Limit of Detection
OTV:	Odour Threshold Value
BCF:	Bio Concentration Factors
BEI:	Biological Exposure Index

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End of SDS