SAFETY DATA SHEET

Product name: **AFAB G93**

1. COMPANY DETAILS AND PRODUCT IDENTIFICATION

COMPANY:	Hi-Tec Oil Traders Pty Ltd. (ABN 28 053 837 362)
ADDRESS:	PO Box 322 Castle Hill NSW 1765 5 Tarlington Place, Smithfield NSW 2164
TELEPHONE NUMBER:	1300 796 009
FAX NUMBER:	(02) 9604 1611
EMERGENCY TELEPHONE NUMBER:	1300 796 009
PRODUCT NAME:	AFAB G93
OTHER NAMES:	None
MANUFACTURER'S PRODUCT CODE:	HI8-
USE:	Corrosion inhibitor for the cooling systems of engines not requiring freeze protection
ADDITIONAL INFORMATION:	Refer to Product Information Sheet for additional information.
OTHER INFORMATION:	Visit our website: www.hi-tecoils.com.au Email: hitecoils@hi-tecoils.com.au

2. HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION:	HAZARDOUS SUBSTANCE NON-DANGEROUS GOODS Hazard classification according to criteria of NOHSC and GHS . Dangerous Goods classification according to Australian Dangerous Goods Code.
POISON SCHEDULE:	S6
CLASSIFICATION:	Acute Toxicity (Oral) - Category 4 Reproductive toxicity - Category 2

GHS LABEL ELEMENTS

SIGNAL WORD(S): **WARNING**

2. HAZARDS IDENTIFICATION (CONT)

GHS HAZARD CLASSIFICATIONS

HAZARD STATEMENTS:	H302: Harmful if swallowed. H361: Suspected of damaging fertility or the unborn child
PREVENTION STATEMENTS:	P201: Obtain special instructions before use. P281: Use personal protective equipment as required. P264: Wash all exposed external body areas thoroughly after handling. P270: Do not eat, drink or smoke when using this product.
RESPONSE STATEMENTS:	P308+P313: IF exposed or concerned: Get medical advice/attention. P301+P312: IF SWALLOWED: Call the POISONS INFORMATION CENTER on 13 11 26 or doctor/physician if you feel unwell. P330: Rinse mouth.
STORAGE STATEMENT:	P405: Store locked up.
DISPOSAL STATEMENT:	P501: Dispose of contents/container in accordance with local regulations.

3. IDENTIFICATION / COMPOSITION OF INGREDIENTS

Ingredients	CAS No	Conc, %
Monoethylene glycol	107-21-1	25 - 35
Potassium2-ethylhexanoate	3164-85-0	10 - 15
Inhibitors	-	Not specified
Water	7732-18-5	48

4. FIRST AID MEASURES

GENERAL INFORMATION:	You should call the Poisons Information Centre on 13 11 26 from anywhere in Australia (0800 764 766 in New Zealand) if you feel that you may have been poisoned, burned or irritated by this product. Have this SDS with you when you call.
EYE CONTACT:	Wash out immediately with fresh running water. 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. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
SKIN CONTACT:	Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.

4. FIRST AID MEASURES (CONT)

INHALATION:

If fumes or combustion products are inhaled remove from contaminated area.
Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. 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. Transport to hospital, or doctor.

INGESTION:

If swallowed, refer for medical attention, where possible, without delay.
For advice, contact a Poisons Information Centre or a doctor. Urgent hospital treatment is likely to be needed. In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition. If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the SDS should be provided. Further action will be the responsibility of the medical specialist. If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the SDS.
Where medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise: INDUCE vomiting with fingers down the back of the throat, ONLY IF CONSCIOUS. Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
NOTE: Wear a protective glove when inducing vomiting by mechanical means.

NOTE TO PHYSICIAN:

Treat symptomatically.
<u>To treat poisoning by the higher aliphatic alcohols (up to C7):</u>
Gastric lavage with copious amounts of water.
It may be beneficial to instill 60 ml of mineral oil into the stomach.
Oxygen and artificial respiration as needed.
Electrolyte balance: it may be useful to start 500 ml. M/6 sodium bicarbonate intravenously but maintain a cautious and conservative attitude toward electrolyte replacement unless shock or severe acidosis threatens.
To protect the liver, maintain carbohydrate intake by intravenous infusions of glucose.
Haemodialysis if coma is deep and persistent. [GOSSELIN, SMITH HODGE: Clinical Toxicology of Commercial Products, Ed 5)

Basic treatment:

Establish a patent airway with suction where necessary.
Watch for signs of respiratory insufficiency and assist ventilation as necessary.
Administer oxygen by non-rebreather mask at 10 to 15 l/min.
Monitor and treat, where necessary, for shock.
Monitor and treat, where necessary, for pulmonary oedema.
Anticipate and treat, where necessary, for seizures.
DO NOT use emetics. Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool. Give activated charcoal.

4. FIRST AID MEASURES (CONT)

Advanced treatment:

Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.
Positive-pressure ventilation using a bag-valve mask might be of use.
Monitor and treat, where necessary, for arrhythmias.
Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications.
If the patient is hypoglycaemic (decreased or loss of consciousness, tachycardia, pallor, dilated pupils, diaphoresis and/or dextrose strip or glucometer readings below 50 mg), give 50% dextrose.
Hypotension with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might create complications.
Drug therapy should be considered for pulmonary oedema.
Treat seizures with diazepam.
Proparacaine hydrochloride should be used to assist eye irrigation.

Emergency department:

Laboratory analysis of complete blood count, serum electrolytes, BUN, creatinine, glucose, urinalysis, baseline for serum aminotransferases (ALT and AST), calcium, phosphorus and magnesium, may assist in establishing a treatment regime. Other useful analyses include anion and osmolar gaps, arterial blood gases (ABGs), chest radiographs and electrocardiograph.
Positive end-expiratory pressure (PEEP)-assisted ventilation may be required for acute parenchymal injury or adult respiratory distress syndrome.
Acidosis may respond to hyperventilation and bicarbonate therapy.
Haemodialysis might be considered in patients with severe intoxication.
Consult a toxicologist as necessary. BRONSTEIN, A.C. and CURRANCE, P.L. EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994.

<u>For C8 alcohols and above.</u>
Symptomatic and supportive therapy is advised in managing patients.
For acute or short term repeated exposures to ethylene glycol:
Early treatment of ingestion is important. Ensure emesis is satisfactory.
Test and correct for metabolic acidosis and hypocalcaemia.
Apply sustained diuresis when possible with hypertonic mannitol.
Evaluate renal status and begin haemodialysis if indicated. [I.L.O]
Rapid absorption is an indication that emesis or lavage is effective only in the first few hours.
Cathartics and charcoal are generally not effective.
Correct acidosis, fluid/electrolyte balance and respiratory depression in the usual manner.
Systemic acidosis (below 7.2) can be treated with intravenous sodium bicarbonate solution.
Ethanol therapy prolongs the half-life of ethylene glycol and reduces the formation of toxic metabolites.
Pyridoxine and thiamine are cofactors for ethylene glycol metabolism and should be given (50 to 100 mg respectively) intramuscularly, four times per day for 2 days.
Magnesium is also a cofactor and should be replenished. The status of 4-methylpyrazole, in the treatment regime, is still uncertain. For clearance of the material and its metabolites, haemodialysis is much superior to peritoneal dialysis.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: 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. Though the material is non-combustible, evaporation of water from the mixture, caused by the heat of nearby fire, may produce floating layers of combustible substances. In such an event consider: foam.

FIRE INCOMPATIBILITY: None known.

FIRE FIGHTING: Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area.

FIRE/EXPLOSION HAZARD: Combustible. Slight fire hazard when exposed to heat or flame.
Heating may cause expansion or decomposition leading to violent rupture of containers.
On combustion, may emit toxic fumes of carbon monoxide (CO).
Combustion products include: carbon dioxide (CO_2), other pyrolysis products typical of burning organic material.
May emit poisonous fumes.
May emit corrosive fumes.

HAZCHEM: Not applicable.

6. ACCIDENTAL RELEASE MEASURES

MINOR SPILLS: Slippery when spilt. Remove all ignition sources. Clean up all spills immediately.
Avoid breathing vapours and contact with skin and eyes.
Control personal contact with the substance, by using protective equipment.

MAJOR SPLILLS: Chemical Class: alcohols and glycols
For release onto land: recommended sorbents listed in order of priority.

SORBENT TYPE	RANK	APPLICATION	COLLECTION	LIMITATIONS
LAND SPILL – SMALL	1			
Crossed-linked polymer - particulate	1	Shovel	Shovel	R, W, SS
Crossed-linked polymer – pillow	1	Throw	Pitchfork	R, DGC, RT
Sorbent clay – particulate	2	Shovel	Shovel	R, I, P
Wood fiber – pillow	3	Throw	Pitchfork	R, P, DGC, RT
Treated wood fiber – pillow	3	Throw	Pitchfork	DGC, RT
Foamed glass – pillow	4	Throw	Pitchfork	R, P, DGC, RT

SORBENT TYPE	RANK	APPLICATION	COLLECTION	LIMITATIONS
LAND SPILL – MEDIUM				
Crossed-linked polymer - particulate	1	Blower	Skiploader	R, W, SS
Polypropylene – particulate	2	Blower	Skiploader	W, SS, DGC
Sorbent clay – particulate	2	Blower	Skiploader	R, I, W, P, DGC
Polypropylene – mat	3	Throw	Skiploader	DGC, RT
Expanded mineral – particulate	3	Blower	Skiploader	R, I, W, P, DGC
Polyurethane – mat	4	Throw	Skiploader	DGC, RT

Legend:

DGC: Not effective where ground cover is dense
R; Not reusable
I: Not incinerable
P: Effectiveness reduced when rainy
RT:Not effective where terrain is rugged
SS: Not for use within environmentally sensitive sites
W: Effectiveness reduced when windy

Reference: Sorbents for Liquid Hazardous Substance Cleanup and Control;
R.W Melvold et al: Pollution Technology Review No. 150: Noyes Data Corporation 1988

MODERATE HAZARD:

Slippery when spilt.
Clear area of personnel and move upwind.
Alert Fire Brigade and tell them location and nature of hazard.
Wear breathing apparatus plus protective gloves.

Personal precautions, protective equipment and emergency procedures - See section 8

Environmental precautions - See section 12

7. HANDLING AND STORAGE

SAFE HANDLING:

DO NOT allow clothing wet with material to stay in contact with skin. Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs.
Use in a well-ventilated area. Prevent concentration in hollows and sumps.

SAFE STORAGE:

Store in original containers. Keep containers securely sealed. No smoking, naked lights or ignition sources. Store in a cool, dry, well-ventilated area.

SUITABLE CONTAINER:

DO NOT use aluminium or galvanised containers.
Use metal can or drum packaging as recommended by manufacturer.
Check all containers are clearly labelled and free from leaks.

7. HANDLING AND STORAGE (CONT)

STORAGE INCOMPATIBILITY

Alcohols:

Are incompatible with strong acids, acid chlorides, acid anhydrides, oxidising and reducing agents.
Reacts, possibly violently, with alkaline metals and alkaline earth metals to produce hydrogen.
React with strong acids, strong caustics, aliphatic amines, isocyanates, acetaldehyde, benzoyl peroxide, chromic acid, chromium oxide, dialkylzincs, dichlorine oxide, ethylene oxide, hypochlorous acid, isopropyl chlorocarbonate, lithium tetrahydroaluminate, nitrogen dioxide, pentafluoroguanidine, phosphorus halides, phosphorus pentasulfide, tangerine oil, triethylaluminium, triisobutylaluminium.
Should not be heated above 49 deg. C. when in contact with aluminium equipment.

Ethylene glycol:

Reacts violently with oxidisers and oxidising acids, sulfuric acid, chlorosulfonic acid, chromyl chloride, perchloric acid**.**
Forms explosive mixtures with sodium perchlorate.
Is incompatible with strong acids, caustics, aliphatic amines, isocyanates, chlorosulfonic acid, oleum, potassium bichromate, phosphorus pentasulfide, sodium chlorite.
Avoid strong acids, bases.

X	Must not be stored together
O	May be stored together with specific preventions
+	May be stored together

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL PARAMETERS

OCCUPATIONAL EXPOSURE LIMITS (OEL):

Ingredient	Material name	TWA	STEL	Peak	Notes
Monoethylene glycol (MEG)	Ethylene glycol (particulate) / Ethylene glycol (vapour)	10mg/m^3 / 52 mg/m^3 / 20 ppm	104 mg/m^3 / 40 ppm	N/A	Sk

EMERGENCY LIMITS:

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
Monoethylene glycol (MEG)	Ethylene glycol	30 ppm	40 ppm	60 ppm

8. EXPOSURE CONTROLS / PERSONAL PROTECTION (CONT)

Ingredient	Original IDLH	Revised IDLH
Monoethylene glycol (MEG)	Not available	Not available
Potassium 2-ethylhexanoate	Not available	Not available
Inhibitors	Not available	Not available
Water	Not available	Not available

ENGINEERING CONTROLS:

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

PERSONAL PROTECTION:

Safety gloves: PVC.
Safety footwear. Wear safety footwear or safety gumboots, e.g. Rubber
Safety wear: PVC aprons or overalls.
Respirator with type A filter.
Barrier cream.

EYE/FACE PROTECTION:

Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document describing the wearing of lenses or restrictions on use, should be created for each workplace or task.

HAND/FEET PROTECTION:

Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber. The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact break-through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice. Personal hygiene is a key element of effective hand care.

THERMAL HAZARDS:

Not available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION (CONT)

RECOMMENDED MATERIAL (S): Glove selection is based on a modified presentation of the:
"Forsberg Clothing Performance Index".
The effect(s) of the following substance(s) are taken into account in the computer generated selection: GLYSACORR G 93-94.

Material	CPI	Material	CPI
BUTYL	C	NITRILE+PVC	C
NATURAL RUBBER	C	PE/EVAL/PE	C
NATURAL+NEOPRENE	C	PVA	C
NEOPRENE	C	PVC	C
NEOPRENE/NATURAL	C	TEFLON	C
NITRILE	C	VITON	C

* CPI - Chemwatch Performance Index

A: Best Selection
B: Satisfactory; may degrade after 4 hours continuous immersion
C: Poor to Dangerous Choice for other than short term immersion
NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -
* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

RESPIRATORY PROTECTION: Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent). Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required minimum protection factor	Half face respirator	Full face respirator	Powered air respirator
Up to 5 x ES	A-AUS / Class 1 P2	-	A-PAPR-AUS / Class 1 P2
Up to 25 x ES	Air-line*	A-2 P2	A-PAPR-2 P2
Up to 50 x ES	-	A-3 P2	-
50+ x ES	-	Air-line**	-

^ - Full-face
A (All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide (HCN), B3 = Acid gas or hydrogen cyanide (HCN), E = Sulfur dioxide (SO2), G = Agricultural chemicals, K = Ammonia (NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds (below 65 degC).

Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content. The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Green fluorescent liquid; mixes with water
PHYSICAL STATE:	Liquid
ODOUR:	Not available
ODOUR THRESHOLD:	Not available
pH (as supplied):	9.5
FREEZING/MELTING POINT(°C) :	< -25
INITIAL BOILING POINT / RANGE (°C):	>100
FLASH POINT (°C):	>100
EVAPORATION RATE:	Not available
FLAMMABILITY:	Not applicable
EXPLOSIVE UPPER/LOWER LIMITS (%):	Not available
VAPOUR PRESSURE (kPa):	2 @ 20C
SOLUBILITY IN WATER (g/L):	Miscible
VAPOUR DENSITY (AIR = 1):	Not available
RELATIVE DENSITY (WATER = 1):	1.096
PARTITION COEFFICIENT:	Not available
AUTO-IGNITION TEMPERATURE (°C):	>200
DECOMPOSITION TEMPERATURE (°C):	Not available
VISCOSITY (cSt):	10 @ 20C
MOLECULAR WEIGHT (g/mol):	Not applicable
TASTE:	Not available
EXPLOSIVE PROPERTIES:	Not available
OXIDISING PROPERTIES:	Not available

9. PHYSICAL AND CHEMICAL PROPERTIES

SURFACE TENSION (dyn/cm or mN/m):	Not available
VOLATILE COMPONENT (% vol):	Not available
GAS GROUP:	Not available
pH AS A SOLUTION (1%):	Not available
VOC (g/L):	388.5

10. STABILITY AND REACTIVITY

REACTIVITY:	See section 7
CHEMICAL STABILITY:	Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
POSSIBLE HAZARDOUS REACTIONS:	See section 7
CONDITIONS TO AVOID:	See section 7
INCOMPATIBLE MATERIALS:	See section 7
HAZARDOUS DECOMPOSITION: PRODUCTS	See section 5

11. TOXICOLOGICAL INFORMATION

INHALED:	Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo. Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.
INGESTION:	Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. For ethylene glycol: Ingestion symptoms include respiratory failure, central nervous depression, cardiovascular collapse, pulmonary oedema, acute kidney failure, and even brain damage. Ingestion of 100 ml has caused death. (ChemInfo) Toxicity of ethylene glycol to human (KB) cell cultures has been reported as less than that of ethanol. (NIOSHTIC) Ethylene glycol produces a three-stage response with the severity of each stage dependent on the amount of ingestion.

11. TOXICOLOGICAL INFORMATION (CONT)

SKIN CONTACT:

Open cuts, abraded or irritated skin should not be exposed to this material.
Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected. The material may produce moderate skin irritation; limited evidence or practical experience suggests, that the material either: produces moderate inflammation of the skin in a substantial number of individuals following direct contact and/or produces significant, but moderate, inflammation when applied to the healthy intact skin of animals (for up to four hours), such inflammation being present twenty-four hours or more after the end of the exposure period.
Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.

EYE:

Limited evidence or practical experience suggests, that the material may cause moderate eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged exposure may cause moderate inflammation (similar to windburn) characterised by a temporary redness of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.

CHRONIC:

Exposure to the material may cause concerns for humans owing to possible developmental toxic effects, generally on the basis that results in appropriate animal studies provide strong suspicion of developmental toxicity in the absence of signs of marked maternal toxicity, or at around the same dose levels as other toxic effects but which are not a secondary non-specific consequence of other toxic effects. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. Prolonged or repeated skin contact may cause degreasing with drying, cracking and dermatitis following.
Human volunteers exposed to ethylene glycol, 20 to 22 hours/ day at mean daily concentrations ranging form 1.4 to 27 ppm for about 4 weeks complained of throat irritation, mild headache and low backache. Complaints became marked when the concentration in the exposure chamber was raised above 56 mg/m3 for part of the day. The most common complaint was irritation of the upper respiratory tract. Concentrations above 80 ppm were intolerable with a burning sensation along the trachea and a burning cough.

	TOXICITY	IRRITATION
Glysacorr G 93-94	Oral (rat) LD50: >2000 mg/kg[2]	Skin irritation (rabbit): non-irritant
Monoethylene Glycol (MEG)	Dermal (rat) LD50: 9530 mg/kgD[2] Oral (rat) LD50: 4700 mg/kgd[2]	Eye (rabbit): 100 mg/1h - mild Eye (rabbit): 12 mg/m^3/3D Eye (rabbit): 1440 mg/6h - moderate Eye (rabbit): 500 mg/24h - mild Skin (rabbit): 555 mg (open) - mild

11. TOXICOLOGICAL INFORMATION (CONT)

	TOXICITY	IRRITATION
Potassium 2-ethylhexanoate	Not available	Not available
Water	Not available	Not available

Monoethylene Glycol (MEG): For ethylene glycol:
Ethylene glycol is quickly and extensively absorbed through the gastrointestinal tract. Limited information suggests that it is also absorbed through the respiratory tract; dermal absorption is apparently slow. Following absorption, ethylene glycol is distributed throughout the body according to total body water. In most mammalian species, including humans, ethylene glycol is initially metabolised by alcohol.
[Estimated Lethal Dose (human) 100 ml; RTECS quoted by Orica] Substance is reproductive effector in rats (birth defects). Mutagenic to rat cells.

Potassium 2-ethylhexanoate & water: No significant acute toxicological data identified in literature search.

12. ECOLOGICAL INFORMATION

TOXICITY

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
Glysacorr G 93-94	N/A	N/A	N/A	N/A	N/A
Monoethylene Glycol (MEG)	LC50	96	Fish	2284.9 mg/L	3
	EC50	48	Crustacea	5046.29 mg/L	5
	EC50	96	Algae or other aquatic plants	6500-13000 mg/L	1
	EC50	N/A	Crustacea	= 10 mg/L	1
	NOEC	552	Crustacea	> = 1000 mg/L	2
Potassium 2-ethylhexanoate	LC50	96	Fish	>100 mg/L	2
	EC50	48	Crustacea	910 mg/L	2
	EC50	72	Algae or other aquatic plants	500 mg/L	2
	EC50	504	Crustacea	75 mg/L	2
	NOEC	504	Crustacea	18 mg/L	2
Water	N/A	N/A	N/A	N/A	N/A

12. ECOLOGICAL INFORMATION (CONT)

PERSISTENCE AND DEGRADABILITY:

Ingredient	Persistence: Water/Soil	Persistence: Air
Monoethylene Glycol (MEG)	LOW (Half-life = 24 days)	LOW (Half-Life = 3.46 days)
Water	LOW	LOW

BIOACCUMULATIVE POTENTIAL:

Ingredient	Bioaccumulation
Monoethylene Glycol (MEG)	LOW (BCF = 200)
Water	LOW (LogKOW = -1.38)

MOBILITY IN SOIL:

Ingredient	Mobility
Monoethylene Glycol (MEG)	HIGH (KOC = 1)
Water	LOW (KOC = -14.3)

13. DISPOSAL CONSIDERATIONS

PRODUCT/PACKAGING DISPOSAL:

Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible.
Otherwise - If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.
Where possible retain label warnings and SDS and observe all notices pertaining to the product.
DO NOT allow wash water from cleaning or process equipment to enter drains.
It may be necessary to collect all wash water for treatment before disposal.
In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority.
Recycle wherever possible or consult manufacturer for recycling options.
Consult State Land Waste Authority for disposal.
Bury or incinerate residue at an approved site.
Recycle containers if possible, or dispose of in an authorised landfill.

14. TRANSPORT INFORMATION

MARINE POLLUTANT: No

HAZCHEM: Not applicable.

ROAD & RAIL TRANSPORT:
ADG REQUIREMENT: Not regulated for Transport of Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

14. TRANSPORT INFORMATION (CONT)

MARITIME TRANSPORT:

IMO/IMDG REQUIREMENT	Not regulated for Transport of Dangerous Goods according to the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

AIR TRANSPORT:

ICAO/IATA REQUIREMENT	Not regulated for Transport of Dangerous Goods according to the criteria of the International Maritime Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

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

15. REGULATORY INFORMATION

POISONS SCHEDULE:	S6
PACKING & LABELLING:	No special packaging or labelling requirements.

REGULATORY LISTS:

Monoethylene Glycol (MEG)	Australian Hazardous Substances Information System – Consolidated Lists. Australian Inventaory of Chemical Substances (AICS)
Potassium 2-ethylhexanoate	Australian Inventaory of Chemical Substances (AICS)
Water	Australian Inventaory of Chemical Substances (AICS)

16. OTHER INFORMATION

CONTACT PERSON/POINT: General Manager 1300 796 009

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.

16. OTHER INFORMATION (CONT)

LITERATURE REFERENCES:

* NOHSC: 2011 National Code of Practice for the preparation of Safety Data Sheets.
* NOHSC: 1008 Approved Criteria for Classifying Hazardous Substances.
* NOHSC: 10005 List of Designated Hazardous Substances.
* NOHSC: 1005 Control of Workplace Hazardous Substances, National Code of Practice.
* NOHSC: 2007 Control of Workplace Hazardous Substances, National Code of Practice.
* NOHSC: 1003 Exposure Standards for Atmospheric Contaminants in the Occupational Environment, National Exposure Standards.
* NOHSC: 3008 Exposure Standards for Atmospheric Contaminants in the Occupational Environment, Guidance Note.
* NOHSC: 1015 Storage and Handling of Workplace Dangerous Goods, National Standard.
* NOHSC: 2017 Storage and Handling of Workplace Dangerous Goods, National Code of Practice.
* SUSDP: Standard for the Uniform Scheduling of Drugs and Poisons
* ADG: Australian Dangerous Goods Code
* SDS of component materials.

ABBREVIATIONS:

TWA: Permissible Concentration-Time Weighted Average
STEL: Permissible Concentration-Short Term Exposure Limit
STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit。
IDLH: Immediately Dangerous to Life or Health Concentrations

LAST CHANGE:

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END OF SDS