

POPS Group (The POPS Group Pty Ltd as Trustee for The Pool Shops Trust)

Chemwatch: 5278-23

Version No: 4.1

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

Chemwatch Hazard Alert Code: 3

Issue Date: 26/10/2022 Print Date: 27/10/2022 L.GHS.AUS.EN.E

SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier	
Product name	PRIMING FLUID FOR PRESSURE PIPES - RED
Chemical Name	Not Applicable
Synonyms	Not Available
Proper shipping name	ETHYL METHYL KETONE (METHYL ETHYL KETONE)
Chemical formula	Not Applicable
Other means of identification	Not Available

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

Relevant identified uses	The use of a quality of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation. Use according to manufacturer's directions. Primer for solvent cements used on uPVC pipes.
Relevant identified uses	Before starting consider control of exposure by mechanical ventilation. Use according to manufacturer's directions. Primer for solvent cemen used on uPVC pipes. Use according to manufacturer's directions.

Details of the manufacturer or supplier of the safety data sheet

Registered company name	POPS Group (The POPS Group Pty Ltd as Trustee for The Pool Shops Trust)
Address	10-12 Cairns Street Loganholme QLD 4129 Australia
Telephone	+61 7 3209 7884
Fax	+61 7 3209 8635
Website	http://www.poolpro.com.au/
Email	office@poolpro.com.au

Emergency telephone number

Association / Organisation	ІХОМ
Emergency telephone numbers	+61 3 9663 2130 (International) (24 hours)
Other emergency telephone numbers	+61 1800 033 111

SECTION 2 Hazards identification

Classification of the substance or mixture		
Poisons Schedule	S5	
Classification ^[1]	Flammable Liquids Category 2, Serious Eye Damage/Eye Irritation Category 2A, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3	
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI	

Label elements

Hazard pictogram(s)	
Signal word	Danger

Hazard statement(s)

AUH066	Repeated exposure may cause skin dryness and cracking.
H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271	Use only outdoors or in a well-ventilated area.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/intrinsically safe equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P261	Avoid breathing mist/vapours/spray.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P264	Wash all exposed external body areas thoroughly after handling.

Precautionary statement(s) Response

P370+P378	In case of fire: Use alcohol resistant foam or normal protein foam to extinguish.	
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.	
P337+P313	If eye irritation persists: Get medical advice/attention.	
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].	
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.	

Precautionary statement(s) Storage

P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary statement(s) Disposal

Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 Composition / information on ingredients

P501

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
78-93-3	>60	methyl ethyl ketone
85-83-6	<1	C.I. Solvent Red 24
Legend:	Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L * EU IOELVs available	

SECTION 4 First aid measures

Description of first aid measures		
Eye Contact	 If this product comes in contact with the eyes: 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	 If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation. 	
Inhalation	 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, without delay. 	
Ingestion	 Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor. If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus. 	

Indication of any immediate medical attention and special treatment needed

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours. Treat symptomatically.

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PRIMING FLUID FOR PRESSURE PIPES - RED

Extinguishing media

- Alcohol stable foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog Large fires only.

Special hazards arising from the substrate or mixture

Fire Incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result		
Advice for firefighters			
Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. May be violently or explosively reactive. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water course. Consider evacuation (or protect in place). Fight fire from a safe distance, with adequate cover. If safe, switch off electrical equipment until vapour fire hazard removed. Use water delivered as a fine spray to control the fire and cool adjacent area. Avoid spraying water onto liquid pools. 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. 		
Fire/Explosion Hazard	 Liquid and vapour are highly flammable. Severe fire hazard when exposed to heat, flame and/or oxidisers. Vapour may travel a considerable distance to source of ignition. 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 (CO2) other pyrolysis products typical of burning organic material. Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions. 		
HAZCHEM	•2YE		

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	 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. Contain and absorb small quantities with vermiculite or other absorbent material. Wipe up. Collect residues in a flammable waste container. 									
	Chemical Class For release onto SORBENT	: ketones o land: recomn RANK A	nended PPLICA	sorber TION	nts listed in	order of p	priority LIN	y. MITATIONS		
	LAND SPILL - S	SMALL								
	cross-linked p	olymer - partic	culate	1	shovel	shovel		R, W, SS		
	cross-linked p	olymer - pillow	/	1	throw	pitchfork	c I	R, DGC, RT		
	sorbent clay -	particulate		2	shovel	shovel		R,I, P		
	wood fiber - p	illow		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			
Major Spills	LAND SPILL - N	AEDIUM								
	cross-linked polymer - particulate		1	blower	skipload	ler	R,W, SS			
	cross-linked polymer - pillow		2	throw	skipload	ler	R, DGC, RT			
	sorbent clay - particulate		3	blower	skipload	ler	R, I, P			
	polypropylene	e - particulate		3	blower	skipload	ler	R, SS, DGC		
	expanded mineral - particulate		4	blower	skipload	ler	R, I, W, P, DGC			
	polypropylene	e - mat		4	throw	skipload	ler	DGC, RT		
	Legend DGC: Not effect R; Not reusable I: Not incinerabl P: Effectiveness	tive where grou e s reduced whe	und cove n rainy	er is d	ense					

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
Clear area of personnel and move upwind.
Alert Fire Brigade and tell them location and nature of hazard.
May be violently or explosively reactive.
Wear breathing apparatus plus protective gloves.
Prevent, by any means available, spillage from entering drains or water course.
Consider evacuation (or protect in place).
No smoking, naked lights or ignition sources.
Increase ventilation.
Stop leak if safe to do so.
Water spray or fog may be used to disperse /absorb vapour.
Contain spill with sand, earth or vermiculite.
Use only spark-free shovels and explosion proof equipment.
Collect recoverable product into labelled containers for recycling.
Absorb remaining product with sand, earth or vermiculite.
Collect solid residues and seal in labelled drums for disposal.
Wash area and prevent runoff into drains.
If contamination of drains or waterways occurs, advise emergency services.

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

SECTION 7 Handling and storage

Precautions for safe handling	
	 Containers, even those that have been emptied, may contain explosive vapours. Do NOT cut, drill, grind, weld or perform similar operations on or near containers. Contains low boiling substance:
	Contains for boling substance.
	 Charle of containers may result in pressure buildup causing violent rupture of containers not rated appropriately. Charle for building containers
	 Verily periodically A lawaye rate as a case of a series show to ansure show dissipation of vanours
	Lo Not allow clothing wet with material to stay in contact with skin
	A void all personal contact including inhabition
	Avoid an personal contact, including initiation: Wear protective clothing, when risk of exposure occurs
	Files a well-ventilated area
	Cool in a work volumenta area in hollows and summs
	 Frevenic concentration in notices and sources until atmosphere has been checked
Safe handling	Avoid smalling haked lights had to ignition sources
Sale handling	Wold should be handling to have lights, hear or light or sources.
	 When maintaining, Do Not Feat, drink of sindke. Manuary may inside on priority due to static electricity.
	 Vapour inzy ignite on pumping of pouning due to static electricity. E. DO NOT use plactic busicity.
	 Do Not use plastic buckets. Earth and secure metal containers when dispensing or pouring product.
	Early and secure metal containers when dispersing or pouring product. Lice spark free toole when bandling
	• Ose spar-rice tools with insemptible metacide
	Kong contact with montpatible materials.
	A view dominanters securely searce.
	Avoid physical damage to containers.
	 Always wash narius wurit soap and water aner nariuning. Work of the soluble to lundered exponentative
	 Work clothes should be laditided separately. I be and acquestional user's reserved.
	 Ose good occupational work practice. Observe many fracturer's target and handling recommendations contained within this SDS.
	 Observe manufacturers storage and handwing recommendations contained within this SDS. A messphere should be required walked against astabilized avecues clandards to appure asfa working conditions.
	 Atmosphere should be regularly checked against established exposure standards to ensure sale working conditions.
	Store in original containers in approved flame-proof area.
	No smoking, naked lights, heat or ignition sources.
	DO NOT store in pits, depression, basement or areas where vapours may be trapped.
	Keep containers securely sealed.
	Store away from incompatible materials in a cool, dry well ventilated area.
	Protect containers against physical damage and check regularly for leaks.
	 Observe manufacturer's storage and handling recommendations contained within this MSDS.
	Tank storage: Tanks must be specifically designed for use
	with this product. Bulk storage tanks should be diked
	(bunded). Locate tanks away from heat and other sources of
	ignition. Cleaning, inspection and maintenance of storage
	tanks is a specialist operation, which requires the implementation of strict procedures and precautions. Keep in
	• a cool place. Electrostatic charges will be generated during pumping. Electrostatic discharge may cause fire. Ensure electrical continuity
	by bonding and grounding (earthing) all equipment to reduce the risk. The vapours in the head space of the storage vessel may lie in the
	flammable/explosive range and hence may be flammable.
Other information	For containers, or container linings use mild
	steel, stainless steel., Examples of suitable materials are: high
	density polyethylene (HDPE), polypropylene (PP), and Viton
	(FMK), which have been specifically tested for compatibility
	with this product., For container linings, use amine-adduct
	cured epoxy paint., For seals and gaskets use: graphite,
	PTFE, Viton A, Viton B.
	Unsuitable material: Some synthetic materials may be
	unsuitable for containers or container linings depending on the
	material specification and intended use. Examples of
	materials to avoid are: natural rubber (NR), nitrile rubber
	(NBR), ethylene propylene rubber (EPDM), polymethyl
	methacrylate (PMMA), polystyrene, polyvinyl chloride (PVC),
	nahriashutulana. Hawayar sama may ka ayitahla far daya matariala
	· polyisobutylene., However, some may be suitable for glove materials

emptied, can contain explosive vapours

Conditions for safe storage, including any incompatibilities

Suitable container	 500ml Packing as supplied by manufacturer. Plastic containers may only be used if approved for flammable liquid. Check that containers are clearly labelled and free from leaks. For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. (ii) : Where a can is to be used as an inner package, the can must have a screwed enclosure. For materials with a viscosity of at least 2680 cSt. (23 deg. C) For manufactured product having a viscosity of at least 250 cSt. (23 deg. C) Manufactured product that requires stirring before use and having a viscosity of at least 20 cSt (25 deg. C): (i) Removable head packaging; (ii) Cans with friction closures and (iii) low pressure tubes and cartridges may be used. Where combination packages are used, and the inner packages are of glass, there must be sufficient inert cushioning material in contact with inner and outer packages In addition, where inner packagings are glass and contain liquids of packing group I there must be sufficient inert absorbent to absorb any spillage, unless the outer packaging is a close fitting moulded plastic box and the substances are not incompatible with the plastic.
Storage incompatibility	 Methyl ethyl ketone: reacts violently with strong oxidisers, aldehydes, nitric acid, perchloric acid, potassium tert-butoxide, oleum is incompatible with inorganic acids, aliphatic amines, ammonia, caustics, isocyanates, pyridines, chlorosulfonic aid forms unstable peroxides in storage, or on contact with propanol or hydrogen peroxide attacks some plastics may generate electrostatic charges, due to low conductivity, on flow or agitation

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	methyl ethyl ketone	Methyl ethyl ketone (MEK)	150 ppm / 445 mg/m3	890 mg/m3 / 300 ppm	Not Available	Not Available
Emergency Limits						

Ingredient	TEEL-1	TEEL-2		TEEL-3	
methyl ethyl ketone	Not Available	ailable Not Available		Not Available	
Ingredient	Original IDLH		Revised IDLH		
methyl ethyl ketone	3,000 ppm		Not Available		
C.I. Solvent Red 24	Not Available		Not Available		

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit	
C.I. Solvent Red 24	E	≤ 0.01 mg/m³	
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.		

MATERIAL DATA

These exposure guidelines have been derived from a screening level of risk assessment and should not be construed as unequivocally safe limits. ORGS represent an 8-hour time uninted exercise unloss specified otherwise.

time-weighted average unless specified otherwise. CR = Cancer Risk/10000; UF = Uncertainty factor:

TLV believed to be adequate to protect reproductive health:

LOD: Limit of detection

Toxic endpoints have also been identified as:

D = Developmental; R = Reproductive; TC = Transplacental carcinogen

Jankovic J., Drake F.: A Screening Method for Occupational Reproductive

American Industrial Hygiene Association Journal 57: 641-649 (1996)

For methyl ethyl ketone:

Odour Threshold Value: Variously reported as 2 ppm and 4.8 ppm

Odour threshold: 2 ppm (detection); 5 ppm (recognition) 25 ppm (easy recognition); 300 ppm IRRITATING

Exposures at or below the recommended TLV-TWA are thought to prevent injurious systemic effects and to minimise objections to odour and irritation. Where synergism or potentiation may occur stringent control of the primary toxin (e.g. n-hexane or methyl butyl ketone) is desirable and additional consideration should be given to lowering MEK exposures.

Odour Safety Factor(OSF)

OSF=28 (METHYL ETHYL KETONE)

Exposure controls

Appropriate 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. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required. Ventilation equipment should be explosion-resistant.

	Air contaminants generated in the workplace possess varying circulating air required to effectively remove the contaminant.	"escape" velocities which, in turn, determine the "capture velociti	ies" of fresh	
	Type of Contaminant:		Air Speed:	
	solvent, vapours, degreasing etc., evaporating from tank (in still air).			
	aerosols, fumes from pouring operations, intermittent conta plating acid fumes, pickling (released at low velocity into zo	iner filling, low speed conveyer transfers, welding, spray drift, ne of active generation)	0.5-1 m/s (100-200 f/min.)	
	direct spray, spray painting in shallow booths, drum filling, o generation into zone of rapid air motion)	conveyer loading, crusher dusts, gas discharge (active	1-2.5 m/s (200-500 f/min.)	
	Within each range the appropriate value depends on:			
	Lower end of the range	Upper end of the range		
	1: Room air currents minimal or favourable to capture	1: Disturbing room air currents		
	2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity		
	3: Intermittent, low production.	3: High production, heavy use		
	4: Large hood or large air mass in motion	4: Small hood-local control only		
Personal protection	 4: Large hood or large air mass in motion 4: Small hood-local control only Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used. Adequate ventilation is typically taken to be that which limits the average concentration to no more than 25% of the LEL within the building room or enclosure containing the dangerous substance. Wentilation for plant and machinery is normally considered adequate if it limits the average concentration of any dangerous substance that might potentially be present to no more than 25% of the LEL. However, an increase up to a maximum 50% LEL can be acceptable where additional safeguards are provided to prevent the formation of a hazardous explosive atmosphere. For example, gas detectors linked to emergency shutdown of the process might be used together with maintaining or increasing the exhaust ventilation on solvent evaporating ovens and gas turbine enclosures. Temporary exhaust ventilation systems may be provided for non-routine higher-risk activities, such as cleaning, repair or maintenance in tanks or other confined spaces or in an emergency after a release. The work procedures for such activities should be carefully considered. The atmosphere should be continuously monitored to ensure that ventilation is adequate and the area remains safe. Where workers will enter the space, the ventilation should ensure that the concentration of the dangerous su			
	remove contact lens as soon as practicable. Lens should a clean environment only after workers have washed har national equivalent]	be removed at the first signs of eye redness or irritation - lens shi ids thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS	ould be removed in S/NZS 1336 or	
Skin protection	See Hand protection below			
	 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 manufacturer. Where the chemical is a preparation of several and has therefore to be checked prior to the application. The exact break through time for substances has to be obtain making a final choice. Personal hygiene is a key element of effective hand care. Glo washed and dried thoroughly. Application of a non-perfumed Suitability and durability of glove type is dependent on usage frequency and duration of contact, chemical resistance of glove material, glove thickness and 	material, but also on further marks of quality which vary from mar substances, the resistance of the glove material can not be calcu red from the manufacturer of the protective gloves and has to be oves must only be worn on clean hands. After using gloves, hands moisturiser is recommended. . Important factors in the selection of gloves include:	nufacturer to ulated in advance observed when s should be	
Hands/feet protection	Select gloves tested to a relevant standard (e.g. Europe EN 3 • When prolonged or frequently repeated contact may occur, minutes according to EN 374, AS/NZS 2161.10.1 or national	374, US F739, AS/NZS 2161.1 or national equivalent). a glove with a protection class of 5 or higher (breakthrough time g equivalent) is recommended.	greater than 240	

When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN

374, AS/NZS 2161.10.1 or national equivalent) is recommended.
Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.
Contaminated gloves should be replaced.
As defined in ASTM F-739-96 in any application, gloves are rated as:
Excellent when breakthrough time > 480 min
Conduct the two polymer types are used.

- · Good when breakthrough time > 20 min
- · Fair when breakthrough time < 20 min
- Poor when glove material degrades
- For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.

It should be emphasized that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on

Continued...

	 consideration of the task requirements and knowledge of breakthrough times. Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers technical data should always be taken into account to ensure selection of the most appropriate glove for the task. Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example: Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of. Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.
Body protection	See Other protection below
Other protection	 Overalls. PVC Apron. PVC protective suit may be required if exposure severe. Eyewash unit. Ensure there is ready access to a safety shower. Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity. For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets). Non sparking safety or conductive footwear should be considered. Conductive footwear describes a boot or shoe with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electrically ground the foot an shall dissipate static electricity from the body to reduce the possibility of ignition of volatile compounds. Electrical resistance must range between 0 to 500,000 ohms. Conductive should be stored in lockers close to their nom in which they are worn. Personnel who have been issued conductive footwear should not wear them from their place of work to their homes and return.

Recommended material(s)

GLOVE SELECTION INDEX

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 $\ensuremath{\textit{computer-generated}}$ selection:

PRIMING FLUID FOR PRESSURE PIPES - RED

Material	CPI
BUTYL	А
PE/EVAL/PE	А
TEFLON	А
BUTYL/NEOPRENE	В
PVA	В
HYPALON	С
NATURAL RUBBER	C
NATURAL+NEOPRENE	С
NEOPRENE	C
NEOPRENE/NATURAL	С
NITRILE	C
NITRILE+PVC	С
PVC	C
SARANEX-23	C
VITON/NEOPRENE	С

* 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.

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Red highly flammable liquid with a characteristic odour of MEK; mixes with water. Red Appearance Relative density (Water = 1) 0.804-0.806 Physical state Liauid Partition coefficient n-octanol Characteristic Not Available Odour / water Odour threshold 515 Not Available Auto-ignition temperature (°C) Decomposition Not Available pH (as supplied) Not Available temperature (°C) Melting point / freezing point -86 Viscosity (cSt) Not Available (°C)

Respiratory protection

Type A 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	-	A-PAPR-AUS / Class 1
up to 25 x ES	Air-line*	A-2	A-PAPR-2
up to 50 x ES	-	A-3	-
50+ x ES	-	Air-line**	-

* - Continuous-flow; ** - Continuous-flow or positive pressure demand ^ - 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.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

PRIMING FLUID FOR PRESSURE PIPES - RED

Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	-4	Taste	Not Available
Evaporation rate	3.7	Explosive properties	Not Available
Flammability	HIGHLY FLAMMABLE.	Oxidising properties	Not Available
Upper Explosive Limit (%)	1.8	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	11.5	Volatile Component (%vol)	66.6 (VOC)
Vapour pressure (kPa)	1.0	Gas group	Not Available
Solubility in water	Miscible	pH as a solution (Not Available%)	Not Available
Vapour density (Air = 1)	2.4	VOC g/L	Not Available

SECTION 10 Stability and reactivity

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

SECTION 11 Toxicological information

Information on toxicological effects

Inhaled	Inhalation of vapours or aerosols (mists, fumes), generated by the materi Evidence shows, or practical experience predicts, that the material produ individuals, following inhalation. In contrast to most organs, the lung is ab irritant and then repairing the damage. The repair process, which initially may however, produce further lung damage resulting in the impairment o irritation often results in an inflammatory response involving the recruitme system. Inhalation of vapours may cause drowsiness and dizziness. This may be coordination and vertigo.	ial during the course of normal handling, may be harmful. uces irritation of the respiratory system, in a substantial number of ole to respond to a chemical insult by first removing or neutralising the evolved to protect mammalian lungs from foreign matter and antigens, of gas exchange, the primary function of the lungs. Respiratory tract ent and activation of many cell types, mainly derived from the vascular accompanied by narcosis, reduced alertness, loss of reflexes, lack of	
Ingestion	The material is not thought to produce adverse health effects following in Nevertheless, adverse systemic effects have been produced following ex requires that exposure be kept to a minimum.	gestion (as classified by EC Directives using animal models). cosure of animals by at least one other route and good hygiene practice	
Skin Contact	 The material produces moderate skin irritation; evidence exists, or practical experience predicts, 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. Repeated exposure may cause skin cracking, flaking or drying following normal handling and use. Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. 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. 		
Eye	Evidence exists, or practical experience predicts, that the material may cause eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur. The vapour when concentrated has pronounced eye irritation effects and this gives some warning of high vapour concentrations. If eye irritation occurs seek to reduce exposure with available control measures, or evacuate area.		
Chronic	Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. On the basis, primarily, of animal experiments, concern has been expressed by at least one classification body that the material may produce carcinogenic or mutagenic effects; in respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment.		
	τοχισιτγ	IRRITATION	
PRIMING FLUID FOR	Inhalation (Rat) LC50: >20 mg/L/4h ^[2]	Not Available	
PRESSURE PIPES - RED	Oral (Rat) LD50: >2000 mg/kg ^[2]		
	ΤΟΧΙΟΙΤΥ	IRRITATION	
methyl ethyl ketone	Dermal (rabbit) LD50: 6480 mg/kg ^[2]	Eye (human): 350 ppm -irritant	

	Inhalation(Mouse) LC50; 32 mg/L4h ^[2]	Eye (rabbit): 8	0 mg - irritant
	Oral (Rat) LD50; 2054 mg/kg ^[1]	Skin (rabbit): 4	02 mg/24 hr - mild
		Skin (rabbit):1	3.78mg/24 hr open
	ΤΟΧΙΟΙΤΥ	IRRITATION	
C.I. Solvent Red 24	dermal (rat) LD50: >2000 mg/kg ^[1]	Eye: adverse e	effect observed (irritating) ^[1]
	Oral (Rat) LD50; >5000 mg/kg ^[2]	Skin: adverse	effect observed (irritating) ^[1]
Legend:	1. Value obtained from Europe ECHA Registered Sul specified data extracted from RTECS - Register of Tc	bstances - Acute toxicity 2. Value ob oxic Effect of chemical Substances	tained from manufacturer's SDS. Unless otherwise
METHYL ETHYL KETONE	Asthma-like symptoms may continue for months or et known as reactive airways dysfunction syndrome (RA criteria for diagnosing RADS include the absence of p asthma-like symptoms within minutes to hours of a d airflow pattern on lung function tests, moderate to set lymphocytic inflammation, without eosinophilia. RADS the concentration of and duration of exposure to the i result of exposure due to high concentrations of irrital disorder is characterized by difficulty breathing, cougl The material may cause skin irritation after prolonged dermatitis is often characterised by skin redness (erry spongy layer (spongiosis) and intracellular oedema o	ven years after exposure to the mate ADS) which can occur after exposure previous airways disease in a non-at ocumented exposure to the irritant. C vere bronchial hyperreactivity on mel S (or asthma) following an irritating in rritating substance. On the other har ting substance (often particles) and is h and mucus production. d or repeated exposure and may proor thema) and swelling the epidermis. H f the epidermis.	rial ends. This may be due to a non-allergic condition to high levels of highly irritating compound. Main opic individual, with sudden onset of persistent ther criteria for diagnosis of RADS include a reversible hacholine challenge testing, and the lack of minimal halation is an infrequent disorder with rates related to id, industrial bronchitts is a disorder that occurs as a s completely reversible after exposure ceases. The duce a contact dermatitis (nonallergic). This form of tistologically there may be intercellular oedema of the
C.I. SOLVENT RED 24	 Substance has been investigated as a tumorigen and NOTE: Detailed analysis of the molecular structurazo colourant can split off carcinogenic arylamine The azo linkage is considered the most labile portion photochemical breakdown may also take place. The I Water solubility determines the ultimate degradation proceeding of the azo linkage by bacteria, the combination of the component amines are recognised as potential experimental animals. Sulfonation of the dye reduces The component amines which may be released from generating group(s) are connected to an aryl moiety). Anilines, e.g. o-toluidine. Fused ring amines, e.g. 2-naphthylamine. Aminoazo and other azo compounds, e.g. 4-(phere) Heterocyclic amines. The aromatic amines containing moieties of anilines, important azo dyes. Reductive fission of the azo group, either by intestina benzidine-based aromatic amines to be released. Sur Mutagenicity, which has been observed with numerou attributed to the release of amines and their subseque exposure to benzidene-based azo colourants can inc The acute toxicity of azo dyes is low However, poter Despite a very broad field of application and exposure dyes have been linked to allergic contact dermatitis ir caused allergic dermatitis in a few cases. NOTE: Substance has been shown to be mutagenic cellular DNA. The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. 	I mutagen. Tumors at sites of applica ire, by various Authorities/ Agencies as. of an azo dye. The linkage easily un breakdown results in cleavage of the pathways of the dyes. For example the natic breakdown but may be suscept nponent aromatic amines are absorb I human carcinogens, and/or several as the toxicity by enhancement of the of azo dyes are mostly aromatic amines. In general, aromatic amines known enylazo)aniline. extended anilines and fused ring am I bacteria or by azo reductases of the ch breakdown products have been d us azo colourants in in vitro test syste ent metabolic activation. There are in rease the incidence of bladder carcit tital health effects are recognised. e, sensitising properties of azo dyes in heavily exposed workers. Furtherm in at least one assay, or belongs to a	tion. *ICI and in other cases by Chemwatch, indicates that the dergoes enzymatic breakdown, but thermal or molecule and in release of the component amines. he azo linkage of many azo pigments is, due to very low ible to endogenous micro-organisms found in the ed in the intestine and excreted in the urine. Twenty-two of them have shown carcinogenic potential on excretion. s (compounds where an amine group or amine- as carcinogenic may be grouped into five groups ines are components of the majority of the industrially e liver and extra-hepatic tissues can cause etected in animal experiments as well as in man (urine). ms, and the carcinogenicity in animal experiments are ow epidemiological indications that occupational noma. have been identified in relatively few reports. Red azoic ore, textiles coloured with disperse azo dyes have family of chemicals producing damage or change to
PRIMING FLUID FOR PRESSURE PIPES - RED & METHYL ETHYL KETONE	Evidence of carcinogenicity may be inadequate or limited in animal testing. Methyl ethyl ketone is considered to have a low order of toxicity; however methyl ethyl ketone is often used in combination with other solvents and the toxic effects of the mix may be greater than either solvent alone. Combinations of n-hexane with methyl ethyl ketone and also methyl n-butyl ketone with methyl ethyl ketone show increase in peripheral neuropathy, a progressive disorder of nerves of extremities. Combinations with chloroform also show increase in toxicity		
Aprila Tavialta	×	Corsineranisit	×
Skin Irritation/Corrocion	<u>×</u>	Peproductivity	2
Serious Eve Damage/Irritation		STOT - Single Experies	
Respiratory or Skin	×	STOT - Repeated Exposure	×
Sensitisation	×	Asniration Hazard	×
watagenicity	n		not quailable or doop not fill the ariteria for also-ification

SECTION 12 Ecological information

Toxicity					
	Endpoint	Test Duration (hr)	Species	Value	Source
PRESSURE PIPES - RED	Not Available	Not Available	Not Available	Not Available	Not Available

	Endpoint	Test Duration (hr)	Species	Value	Source
methyl ethyl ketone	NOEC(ECx)	48h	Crustacea	68mg/l	2
	EC50	72h	Algae or other aquatic plants	1972mg/l	2
	EC50	48h	Crustacea	308mg/l	2
	LC50	96h	Fish	>324mg/L	4
	EC50	96h	Algae or other aquatic plants	>500mg/l	4
					-
	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	Test Duration (hr) 1008h	Species Fish	Value <0.29-2.9	Source 7
C.I. Solvent Red 24	BCF EC50(ECx)	Test Duration (hr) 1008h 48h	Species Fish Crustacea	Value <0.29-2.9 3.9mg/l	Source 7 2
C.I. Solvent Red 24	Endpoint BCF EC50(ECx) EC50	Test Duration (hr) 1008h 48h 48h	Species Fish Crustacea Crustacea	Value <0.29-2.9 3.9mg/l 3.9mg/l	Source 7 2 2 2

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
methyl ethyl ketone	LOW (Half-life = 14 days)	LOW (Half-life = 26.75 days)
C.I. Solvent Red 24	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
methyl ethyl ketone	LOW (LogKOW = 0.29)
C.I. Solvent Red 24	LOW (BCF = 11)

Mobility in soil

Ingredient	Mobility
methyl ethyl ketone	MEDIUM (KOC = 3.827)
C.I. Solvent Red 24	LOW (KOC = 1182000)

SECTION 13 Disposal considerations

Waste treatment methods	
Product / Packaging disposal	Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. A Hierarchy of Controls seems to be common - the user should investigate: Reduction Reuse Recycling Disposal (if all else fails) This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate. 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.

SECTION 14 Transport information

Labels Required	
Marine Pollutant	NO
HAZCHEM	•2YE
	·

Land transport (ADG)

UN number	1193
UN proper shipping name ETHYL METHYL KETONE (METHYL ETHYL KETONE)	

Transport hazard class(es)	Class 3 Subrisk Not App	3 Not Applicable		
Packing group	Ш			
Environmental hazard	Not Applicable			
Special precautions for user	Special provisions Limited quantity	Not Applicable		

Air transport (ICAO-IATA / DGR)

UN number	1193			
UN proper shipping name	Methyl ethyl ketone; Ethyl methyl ketone			
Transport hazard class(es)	ICAO/IATA Class ICAO / IATA Subrisk ERG Code	3 Not Applicable 3L		
Packing group	Ш			
Environmental hazard	Not Applicable			
Special precautions for user	Special provisions Cargo Only Packing Instructions Cargo Only Maximum Qty / Pack Passenger and Cargo Packing Instructions Passenger and Cargo Maximum Qty / Pack Passenger and Cargo Limited Quantity Packing Instructions Passenger and Cargo Limited Maximum Qty / Pack		Not Applicable 364 60 L 353 5 L Y341 1 L	

Sea transport (IMDG-Code / GGVSee)

UN number	1193			
UN proper shipping name	ETHYL METHYL KE	ETHYL METHYL KETONE (METHYL ETHYL KETONE)		
Transport hazard class(es)	IMDG Class3IMDG SubriskNot Applicable			
Packing group	Ш			
Environmental hazard	Not Applicable			
Special precautions for user	EMS Number Special provisions Limited Quantities	F-E, S-D Not Applicable 1 L		

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

Not Applicable

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
methyl ethyl ketone	Not Available
C.I. Solvent Red 24	Not Available

Transport in bulk in accordance with the ICG Code

Product name	Ship Type
methyl ethyl ketone	Not Available
C.I. Solvent Red 24	Not Available

SECTION 15 Regulatory information

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

methyl ethyl ketone 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 5 Australian Inventory of Industrial Chemicals (AIIC)

C.I. Solvent Red 24 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 7

Australian Inventory of Industrial Chemicals (AIIC)

Chemical Footprint Project - Chemicals of High Concern List International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

National	Inventory	Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (methyl ethyl ketone; C.I. Solvent Red 24)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	Yes
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	Yes
Russia - FBEPH	Yes
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

SECTION 16 Other information

Revision Date	26/10/2022
Initial Date	27/10/2017

SDS Version Summary

Version	Date of Update	Sections Updated
3.1	01/11/2019	One-off system update. NOTE: This may or may not change the GHS classification
4.1	26/10/2022	Acute Health (inhaled), Acute Health (skin), Acute Health (swallowed), Advice to Doctor, Appearance, Chronic Health, Classification, Disposal, Exposure Standard, Spills (major), Storage (storage incompatibility), Storage (suitable container), Toxicity and Irritation (Other), Use

Other information

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

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

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted Average PC-STEL: Permissible Concentration-Short Term Exposure Limit IARC: International Agency for Research on Cancer ACGIH: American Conference of Governmental Industrial Hygienists STEL: Short Term Exposure Limit TEEL: Temporary Emergency Exposure Limit。 IDLH: Immediately Dangerous to Life or Health Concentrations ES: Exposure Standard OSF: Odour Safety Factor NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value **BCF: BioConcentration Factors** BEI: Biological Exposure Index AIIC: Australian Inventory of Industrial Chemicals DSL: Domestic Substances List NDSL: Non-Domestic Substances List IECSC: Inventory of Existing Chemical Substance in China EINECS: European INventory of Existing Commercial chemical Substances ELINCS: European List of Notified Chemical Substances NLP: No-Longer Polymers ENCS: Existing and New Chemical Substances Inventory KECI: Korea Existing Chemicals Inventory NZIoC: New Zealand Inventory of Chemicals PICCS: Philippine Inventory of Chemicals and Chemical Substances TSCA: Toxic Substances Control Act TCSI: Taiwan Chemical Substance Inventory

Issue Date: 26/10/2022 Print Date: 27/10/2022

INSQ: Inventario Nacional de Sustancias Químicas

NCI: National Chemical Inventory FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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