GCG Turbochargers Australia Pty Ltd

Chemwatch: 5693-01

Version No: 3.1 Safety Data Sheet according to Work Health and Safety Regulations (Hazardous Chemicals) 2023 and ADG requirements Chemwatch Hazard Alert Code: 4

Issue Date: **26/07/2024** Print Date: **26/07/2024** S.GHS.AUS.EN.E

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

Product Identifier		
Product name	JLM Intake Cleaner 500m	
Chemical Name	Not Applicable	
Synonyms	Not Available	
Proper shipping name	AEROSOLS (contains butane, iso-butane and propane)	
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	Cleaner solvent Use according to manufacturer's directions.	
Details of the manufacturer or supplier of the safety data sheet		
Registered company name	GCG Turbochargers Australia Pty Ltd	
Address	117 Eldridge Road Condell Park NSW 2200 Australia	
Telephone	+61291333855	

Telephone	+61291333855
Fax	Not Available
Website	www.jlmlubricants.com.au
Email	sales@jlmlubricants.com.au

Emergency telephone number

Association / Organisation	GCG Turbochargers Australia Pty Ltd	CHEMWATCH EMERGENCY RESPONSE (24/7)
Emergency telephone numbers	+61291333855	+61 1800 951 288
Other emergency telephone numbers	Not Available	+61 3 9573 3188

Once connected and if the message is not in your preferred language then please dial 01

SECTION 2 Hazards identification

Classification of the substance or mixture

Poisons Schedule	Not Applicable
Classification ^[1]	Flammable Liquids Category 1, Aspiration Hazard Category 1, Skin Corrosion/Irritation Category 1B, Serious Eye Damage/Eye Irritation Category 1, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Reproductive Toxicity Category 2, Hazardous to the Aquatic Environment Acute Hazard Category 2, Hazardous to the Aquatic Environment Long-Term Hazard 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



Signal word Danger

Hazard statement(s)

H224	Extremely flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H336	May cause drowsiness or dizziness.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H401	Toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.
AUH019	May form explosive peroxides.

AUH044	Risk of explosion if heated under confinement.
Precautionary statement(s) Prevention	
P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe mist/vapours/spray.
P264	Wash all exposed external body areas thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
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.
P273	Avoid release to the environment.

Precautionary statement(s) Response

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/ attention.
P370+P378	In case of fire: Use to extinguish.
P363	Wash contaminated clothing before reuse.
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

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
107-98-2	10-<25	propylene glycol monomethyl ether - alpha isomer
128601-23-0	10-<25	hydrocarbons, C9, aromatic
1336-21-6	5-<10	ammonia
74-98-6	2.5-<10	propane
111-76-2	2.5-<10	ethylene glycol monobutyl ether
157627-86-6	2.5-<10	alcohols C13-15-branched and linear, ethoxylated
106-97-8.	1-<2.5	butane
75-28-5.	0.1-<1	iso-butane
Legend:	1. Classified by Chemwatch; Classification drawn from C&	 Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. EU IOELVs available

SECTION 4 First aid measures

Description of first aid measures

Eye Contact	 If aerosols come in contact with the eyes: Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes 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. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	 If solids or aerosol mists are deposited upon the skin: Flush skin and hair with running water (and soap if available). Remove any adhering solids with industrial skin cleansing cream. DO NOT use solvents. Seek medical attention in the event of irritation.
Inhalation	 Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema. Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs). As this reaction may be delayed up to 24 hours after exposure, affected individuals need complete rest (preferably in semi-recumbent posture) and must be kept under medical observation even if no symptoms are (yet) manifested.

	Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be considered.
	This must definitely be left to a doctor or person authorised by him/her.
	(ICSC13719)
	If aerosols, fumes or combustion products are inhaled:
	Remove to fresh air.
	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.
	 If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor.
	Avoid giving milk or oils.
	Avoid giving alcohol.
Indestion	If poisoning occurs, contact a doctor or Poisons Information Centre.
ingestion	Not considered a normal route of entry.
	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

Treat symptomatically.

SECTION 5 Firefighting measures

Extinguishing media

SMALL FIRE: Use extinguishing agent suitable for type of surrounding fire. LARGE FIRE: Cool cylinder. DO NOT direct water at source of leak or venting safety devices as icing may occur. SMALL FIRE:

Water spray, dry chemical or CO2
 LARGE FIRE:

Water spray or fog.

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

Advice for menginers	
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. Prevent, by any means available, spillage from entering drains or water course. If safe, switch off electrical equipment until vapour fire hazard removed. Use water delivered as a fine spray to control fire and cool adjacent 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	 Containers may explode when heated - Ruptured cylinders may rocket May burn but does not ignite easily. Fire exposed containers may vent contents through pressure relief devices. High concentrations of gas may cause asphyxiation without warning. May cause severe irritation or chemical burns May decompose explosively when heated or involved in fire. Contact with gas may cause severe injury and/ or frostbite. Decomposition may produce toxic fumes of: carbon monoxide (CO) 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	Not Applicable

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

methods and material for containment and cleaning up				
Minor Spills	 Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material. Check regularly for spills and leaks. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Wear protective clothing, impervious gloves and safety glasses. Shut off all possible sources of ignition and increase ventilation. Wipe up. If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated. Undamaged cans should be gathered and stowed safely. 			
Major Spills	 Remove leaking cylinders to a safe place. Fit vent pipes. Release pressure under safe, controlled conditions Burn issuing gas at vent pipes. DO NOT exert excessive pressure on valve; DO NOTattempt to operate damaged valve. 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 courses
No smoking, naked lights or janition sources.
▶ Increase ventilation.
Stop leak if safe to do so.
 Water spray or fog may be used to disperse / absorb vapour.
Absorb or cover spill with sand, earth, inert materials or vermiculite.
If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated.
Undamaged cans should be gathered and stowed safely.
 Collect residues and seal in labelled drums for disposal.
Clear area of all unprotected personnel and move upwind.
Alert Emergency Authority and advise them of the location and nature of hazard.
Wear breathing apparatus and protective gloves.
Prevent by any means available, spillage from entering drains and water-courses.
Consider evacuation.
Increase ventilation.
No smoking or naked lights within area.
Stop leak only if safe to so do.
Water spray or fog may be used to disperse vapour.
DO NOT enter confined space where gas may have collected.
 Keep area clear until gas has dispersed.

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

SECTION 7 Handling and storage

Precautions for safe handling	
Safe handling	 The conductivity of this material may make it a static accumulator. A liquid is typically considered nonconductive if its conductivity is below 100 00 pS/m. Whether a liquid is nonconductive or semi-conductive, the precautions are the same., A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid. b ONCT concentrate by evaporation, or evaporate extracts to dryness, as residues may contain explosive peroxides with DETONATION potential. Any static discharge is also a source of hazard. Before any distillation process removes trace peroxides by shaking with excess 5% aqueous ferrous sulfate solution or by percolation through a column of activated alumina. Distillation results in unrihibited ether distillate with considerably increased hazard because of risk of peroxide formation on storage. Add inhibitor to any distillation process removes trace peroxides by parcolation through columns of activated alumina, the absorbed peroxides must promptly be desorbed by treatment with polar solvents such as methanol or water, which should then be disposed of safely. The substance accumulates peroxides which may become hazardous only if it evaporates or is distilled or otherwise treated to concentrate the peroxidisable chemicals should be restricted to ensure that the chemical is used completely before it can become peroxidised. A dresposible peros nobud maintain an inventory of peroxidiable chemical and using and anotate the general chemical are subject to peroxidation. An expiration date should be determined. The chemical should either be treated to remove peroxidise. A presend peroxidiable chemicals should be container opening for example. Purchases of peroxidiable chemicals should be container opening for example. Purchases of deport this data. The person or laborator receiving the chemical should be safe to store for
Other information	 Store in original containers. Keep containers securely sealed. No smoking, naked lights or ignition sources. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS.

Conditions for safe storage, including any incompatibilities

Suitable container	 Aerosol dispenser. Check that containers are clearly labelled.
Storage incompatibility	 Vigorous reactions, sometimes amounting to explosions, can result from the contact between aromatic rings and strong oxidising agents. Aromatics can react exothermically with bases and with diazo compounds. Compressed gases may contain a large amount of kinetic energy over and above that potentially available from the energy of reaction produced by the gas in chemical reaction with other substances

Control parameters

Occupational Exposure Limits (OEL)

l	INGREDIENT DATA								
	Source	Ingredient	Mater	ial name	TWA	STEL	Peak	Notes	
	Australia Exposure Standards	propylene glycol monomethyl ether - alpha isomer	Propy monor	lene glycol methyl ether	100 ppm / 369 mg/m3	553 mg/m3 / 150 ppm	Not Available	Not Available	
	Australia Exposure Standards	ethylene glycol monobutyl ether	2-Butc	oxyethanol	20 ppm / 96.9 mg/m3	242 mg/m3 / 50 ppm	Not Available	Not Available	
	Australia Exposure Standards	butane	Butan	e	800 ppm / 1900 mg/m3	Not Available	Not Available	Not Available	
	Emergency Limits								
	Ingredient	TEEL-1		TEEL-2		TEEL-3			
	propylene glycol monomethyl ether - alpha isomer	100 ppm		160 ppm		660 ppm			
	ammonia	61 ppm		330 ppm		2,300 ppm	2,300 ppm		
	propane	Not Available		Not Available		Not Available	Not Available		
	ethylene glycol monobutyl ether	60 ppm	60 ppm 120 ppm			700 ppm			
	butane	Not Available Not Available			Not Available				
	iso-butane	5500* ppm 17000** ppm			53000*** ppm				
Ingredient Original IDLH Revised IDLH									
	propylene glycol monomethyl ether - alpha isomer	Not Available		Not Available					
	hydrocarbons, C9, aromatic	Not Available			Not Available				
	ammonia	Not Available		Not Available					
	propane	Not Available	Not Available		Not Available				
	ethylene glycol monobutyl ether	700 ppm		Not Available					
	alcohols C13-15-branched and linear, ethoxylated	Not Available		Not Available					
	butane	Not Available		Not Available					
	iso-butane	Not Available		Not Available					
	Occupational Exposure Banding	1							
l	Ingredient	Occupational Exposure Band Ratin	g		Occupational Exposure Band Limit				
Ĩ					10.4				

	Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit	
	hydrocarbons, C9, aromatic	E	≤ 0.1 ppm	
	ammonia	E	≤ 0.1 ppm	
	alcohols C13-15-branched and linear, ethoxylated	E	≤ 0.1 ppm	
Notes: Occupational exposure banding is a process of assigning chemicals into specific categories or bands bas			o specific categories or bands based on a chemical's potency and the	

occupational exposure panding is a process or 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.

Exposure controls

-				
Appropriate engineering controls	CARE: Explosive vapour air mixtures may be present on opening vessels which have contained liquid ammonia. Fatalities have occurred 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. General exhaust is adequate under normal conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh airwident of the extension of the source of the extension of the source			
	Type of Contaminant:		Speed:	
	aerosols, (released at low velocity into zone of active gene	0.5-1 m/s		
	direct spray, spray painting in shallow booths, gas discharg motion)	painting in shallow booths, gas discharge (active generation into zone of rapid air		
	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 toxicity3: Intermittent, low production.3: High production, heavy use4: Large hood or large air mass in motion4: Small hood-local control only			
	Simple theory shows that air velocity falls rapidly with distanc decreases with the square of distance from the extraction po adjusted, accordingly, after reference to distance from the co	e away from the opening of a simple extraction int (in simple cases). Therefore the air speed at t ntaminating source. The air velocity at the extrac	bipe. Velocity generally he extraction point should be tion 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.		
Individual protection measures, such as personal protective equipment			
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. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their remove and an altable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. 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. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZ5 1336 or national equivalent] Close fitting gas tight goggles DO NOT wear contact lenses. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lenses as soon as practicable. Lens should be removed at the first signs of eye redness or rimitation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZ5 1337.1, EN166 or national equivalent] Safety glasses with side shields. Chemical goggles. [AS/NZ5 X 1337.1, EN166 or national equiv		
Skin protection	See Hand protection below		
Hands/feet protection	 When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots. No special equipment needed when handling small quantities. OTHERWISE: For potentially moderate exposures: Wear general protective gloves, eg. light weight rubber gloves. For potentially heavy exposures: Wear chemical protective gloves, eg. PVC. and safety footwear. 		
Body protection	See Other protection below		
Other protection	No special equipment needed when handling small quantities. OTHERWISE: • Overalls. • Skin cleansing cream. • Eyewash unit.		

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 *computer-generated* selection:

Do not spray on hot surfaces

JLM Intake Cleaner 500m

Material	CPI
BUTYL	A
NEOPRENE	В
HYPALON	С
NAT+NEOPR+NITRILE	С
NATURAL RUBBER	C
NATURAL+NEOPRENE	С
NEOPRENE/NATURAL	С
NITRILE	C
NITRILE+PVC	С
PE/EVAL/PE	С
PVA	С
PVC	С
SARANEX-23	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

Respiratory protection

Type KAX 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 10 x ES	KAX-AUS	-	KAX-PAPR-AUS / Class 1
up to 50 x ES	-	KAX-AUS / Class 1	-
up to 100 x ES	-	KAX-2	KAX-PAPR-2 ^

^ - 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
- Generally not applicable.

might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

Aerosols, in common with most vapours/ mists, should never be used in confined spaces without adequate ventilation. Aerosols, containing agents designed to enhance or mask smell, have triggered allergic reactions in predisposed individuals. Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Required minimum protection factor	Maximum gas/vapour concentration present in air p.p.m. (by volume)	Half-face Respirator	Full-Face Respirator
up to 10	1000	AX-AUS / Class 1	-
up to 50	1000	-	AX-AUS / Class 1
up to 50	5000	Airline *	-
up to 100	5000	-	AX-2
up to 100	10000	-	AX-3
100+		-	Airline**

** - Continuous-flow or positive pressure demand.

A(All classes) = Organic vapours, B AUS or B1 = Acid gases, 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 deg C)

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance Highly flammable colorless liquid with ammonia-like odor; does not mix with water. Physical state Liauid Relative density (Water = 1) 0.869 @ 20 C Partition coefficient n-octanol Odour Not Available Not Available / water Auto-ignition temperature Odour threshold Not Available ->240 (°C) Decomposition pH (as supplied) 10 @ 20 C Not Available temperature (°C) Melting point / freezing point Not Available Viscosity (cSt) Not Available (°C) Initial boiling point and -44.5 Molecular weight (g/mol) Not Available boiling range (°C) -97 Not Available Flash point (°C) Taste Evaporation rate Not Available Explosive properties Not Available Flammability HIGHLY FLAMMABLE. Oxidising properties Not Available Surface Tension (dyn/cm or Upper Explosive Limit (%) 20 Not Available mN/m) Lower Explosive Limit (%) 0.7 Volatile Component (%vol) Not Available Vapour pressure (kPa) 830 @ 20 C Gas group Not Available Solubility in water Immiscible pH as a solution (1%) Not Available Vapour density (Air = 1) Not Available VOC g/L 540.25

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	 Elevated temperatures. Presence of open flame. 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 aerosols (mists, fumes), generated by the material during the course of normal handling, may produce toxic effects; these may be fatal. Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo. Inhalation hazard is increased at higher temperatures. Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.

	Central nervous system (CNS) depression may include gener- anaesthetic effects, slowed reaction time, slurred speech and respiratory depression and may be fatal. WARNING:Intentional misuse by concentrating/inhaling conte	al discomfort, symptoms of giddiness, headache, dizziness, nausea, may progress to unconsciousness. Serious poisonings may result in nts may be lethal.		
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. The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion. Not normally a hazard due to physical form of product. Considered an unlikely route of entry in commercial/industrial environments Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733)			
Skin Contact	The material can produce chemical burns following direct contact with the skin. 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 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. Spray mist may produce discomfort			
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. Not considered to be a risk because of the extreme volatility of the gas. 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	Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue. Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems. This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects. Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility. Based on experience with animal studies, exposure to the material may result in toxic effects to the development of the foetus, at levels which do not cause significant toxic effects to the mother. Main route of exposure to the gas in the workplace is by inhalation. There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment. Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following.			
II M Intelse Cleaner 500m	ΤΟΧΙΟΙΤΥ	IRRITATION		
JLM Intake Cleaner 500m	Not Available	Not Available		
	ΤΟΧΙΟΙΤΥ	IRRITATION		
	dermal (rat) LD50: >2000 mg/kg ^[1]	Eye (rabbit) 230 mg mild		
	(1) [nbalation (Rat)] C50: >6 mg/(4h ^[2])	Eye (rabbit) 500 mg/24 h mild		
propylene glycol monomethyl ether - alpha	Oral (Bat) L D50: 3739 mg/kg ^[2]	Eve (rabbit): 100 mg SEVERE		
isomer				
		Skin (rabbit) 500 mg open - mild		
		Skin: no adverse effect observed (not irritating) ^[1]		
		okin. To adverse enect observed (not initiality)		
	ΤΟΧΙΟΙΤΥ	IRRITATION		
hydrocarbons, C9, aromatic	Dermal (rabbit) LD50: >2000 mg/kg ^[1]	Eye: no adverse effect observed (not irritating) ^[1]		
	Oral (Rat) LD50: ~5558 mg/kg ^[1]	Skin: adverse effect observed (irritating) ^[1]		
	τοχιςιτγ	IRRITATION		
ammonia	Inhalation (Rat) LC50: 2000 ppm4h ^[2]	Eye (rabbit): 0.25 mg SEVERE		
	Oral (Rat) LD50: 350 mg/kg ^[2]	Eye (rabbit): 1 mg/30s SEVERE		
propane	IOXICITY			
	innalation (Rat) LC50: 364726.819 ppm4n ⁻³	Not Available		
	ΤΟΧΙΟΙΤΥ	IRRITATION		
	Dermal (Guinea Pig) LD50: 210 mg/kg ^[2]	Eye (rabbit): 100 mg SEVERE * [Union Carbide]		
	Inhalation (Rat) LC50: 450 ppm4h ^[2]	Eye (rabbit): 100 mg/24h-moderate		
ethylene glycol monobutyl ether	Oral (Rat) LD50: 250 mg/kg ^[2]	Eye: adverse effect observed (irritating) ^[1]		
		Skin (rabbit): 500 mg, open; mild		
		Skin: adverse effect observed (irritating) ^[1]		
		Skin: no adverse effect observed (not irritating) ^[1]		
alcohole C12-15 bronched	ΤΟΧΙCΙΤΥ	IRRITATION		
and linear, ethoxylated	Not Available	Not Available		
	τοχιριτχ			
	$[\text{hbalation (Pat) }] \subset \mathbb{S}^{0} : \mathbb{S}^{0} : \mathbb{S}^{0} : \mathbb{S}^{1/4} \mathbb{S}^{[2]}$			
butane		Lyc. no adverse effect observed (not initialing)		
		Skill. No auverse ellect observed (not irritating)."		
iso-butane	ΤΟΧΙCITY	IRRITATION		

	Inhalation (Rat) LC50: >13023 ppm4h ^[1]	Eye: no adverse effect observed (not irritating) ^[1]	
		Skin: no adverse effect observed (not irritating) ^[1]	
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute a specified data extracted from RTECS - Register of Toxic Effect of cher	toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise nical Substances	
PROPYLENE GLYCOL MONOMETHYL ETHER - ALPHA ISOMER	NOTE: For PGE - mixed isomers: Exposure of pregnant rats and rabbits to the substance did not give rise to teratogenic effects at concentrations up to 3000 ppm. Foetotoxic effects were seen in rats but not in rabbits at this concentration; maternal toxicity was noted in both species. For propylene glycol ethers (PGEs): Typical propylene glycol ethers include propylene glycol n-butyl ether (PnB); dipropylene glycol n-butyl ether (DPnB); dipropylene glycol methyl ether acetate (DPMA) and tripropylene glycol methyl ether (TPM). Testing of a wide variety of propylene glycol ethers has shown that propylene glycol-based ethers are less toxic than some ethers of the ethylene series. The common toxicities associated with the lower molecular weight homologues of the ethylene series, such as adverse effects on the reproductive organs, the developing embryo and foetus, blood or thymus gland, are not seen with the commercial-grade propylene glycol ethers. In the ethylene series, metabolism of the terminal hydroxyl group produces and alkoxyacetic acid. The reproductive and developmental toxicities of the lower molecular weight homologues in the ethylene series are due specifically to the formation of methoxyacetic acid. The predominant alpha isomer of all the PGEs (which is thermodynamically favoured during manufacture of PGEs) is a secondary alcohol incapable of forming an alkoxypropionic acid. In contrast, beta-isomers are able to form the alkoxypropionic acids and these are linked to birth defects (and possibly, haemolytic effects). The alpha isomer comprises more than 95% of the isomeric mixture in the commercial groduct, and therefore PGEs show relatively little toxicity. One of the main metabolites of the eyes, in animal testing, while the remaining members of this category caused fifter or oe ye irritation. None cause skin effects or reproductive toxicity. Commercially available PGEs have not been shown to cause birth defects. Available instance indicates that propylene glycol which is of pow toxicity and completely		
HYDROCARBONS, C9, AROMATIC	Absorption of 1,2,4-trimethylbenzene occurs after exposure by swallowing, inhalation, or skin contact. In the workplace, inhalation and skin contact are the most important routes of absorption; whole-body toxic effects from skin absorption are unlikely to occur as the skin irritation caused by the chemical generally leads to quick removal. The substance is fat-soluble and may accumulate in fatty tissues. It is also bound to red blood cells in the bloodstream. It is excreted from the body both by exhalation and in the urine. Acute toxicity: Direct contact with liquid 1,2,4-trimethylbenzene is irritating to the skin, and breathing the vapour is irritating to the airway, causing lung inflammation. Breathing high concentrations of the chemical vapour causes headache, fatigue and drowsiness. In humans, liquid 1,2,4-trimethylbenzene is irritating to the vapour causes chemical pneumonitis. Direct skin contact causes dilation of blood vessels, redness and irritation. Nervous system toxicity: 1,2,4-trimethylbenzene barreations. Nervous system toxicity: 1,2,4-trimethylbenzene barreations. Subacute/chronic toxicity: Long-term exposure to solvents containing 1,2,4-trimethylbenzene may cause nervousness, tension and inflammation of the boronchi. Painters that worked for several years with a solvent containing 50% 1,2,4-trimethylbenzene and 30% 1,3,5-trimethylbenzene showed nervousness, tension and anxiety, asthmatic bronchitis, anaemia and changes in blood clotting; blood effects may have been due to trace amounts of benzene. Animal testing showed that inhaling trimethylbenzene caused reproductive toxicity. Animal testing showed that the C9 fraction of 1,2,4-trimethylbenzene caused reproductive toxicity. For C9 aromatics (typically trimethylbenzenes – TMBs) Acute toxicity: Animal testing shows that semi-lethal concentrations and doses vary amongst this group. The semilethal concentrations for inhalation range from 6000 to 10000 mg/cubic metre for C9 aromatic hydrocarbon solvents are mildly to moderately irritating to the sk		
ETHYLENE GLYCOL MONOBUTYL ETHER	NOTE: Changes in kidney, liver, spleen and lungs are observed in anir ASCC (NZ) SDS The material may cause skin irritation after prolonged or repeated expo production of vesicles, scaling and thickening of the skin. For ethylene glycol monoalkyl ethers and their acetates (EGMAEs): Typical members of this category are ethylene glycol propylene ether (ether (EGHE) and their acetates. EGMAEs are substrates for alcohol dehydrogenase isozyme ADH-3, w (which are transient metabolites). Further, rapid conversion of the alde which are the predominant urinary metabolites of mono substituted gly Acute Toxicity : Oral LD50 values in rats for all category members ran increasing with decreasing molecular weight. Four to six hour acute inf the highest vapour concentrations practically achievable. Values range mg/m3) for EGBEA to LC50 > 2132 ppm (9061 mg/m3) for EGPE. No conditions. Dermal LD50 values in rabbits range from 435 mg/kg bw (fc can be considered to be of low to moderate acute toxicity. All category less irritating and EGHE more irritating than the other category membe humans. Signs of acute toxicity in rats, mice and rabbits are consistent depression typical of organic solvents in general. Alkoxyacetic acid me responsible for the red blood cell hemolysis. Signs of toxicity in human similar to those of rats, with the exception of haemolysis. Although dec some of the human cases, it is not clear if this was due to haemolysis of Red blood cells of humans are many-fold more resistant to toxicity for Repeat dose toxicity : The fact that the NOAEL for repeated dose toxic vitro and displayed similar responses, which included erythrocyte swel followed by hemolysis. Blood from humans, pigs, dogs, cats, and guine Mutagenicity : In the absence and presence of metabolic activation, E <i>typhimurium</i> strains TA97, TA98, TA100, TA1535 and TA1537 and EGI	mals exposed to high concentrations of this substance by all routes. ** osure and may produce on contact skin redness, swelling, the (EGPE), ethylene glycol butyl ether (EGBE) and ethylene glycol hexyl which catalyzes the conversion of their terminal alcohols to aldehydes hydes by aldehyde dehydrogenase produces alkoxyacetic acids, cool ethers. ge from 739 (EGHE) to 3089 mg/kg bw (EGPE), with values halation toxicity studies were conducted for these chemicals in rats at 6 from LCO > 85 ppm (508 mg/m3) for EGHE, LCSO > 400ppm (2620 lethality was observed for any of these materials under these EGBE) to 1500 mg/kg bw (EGBEA). Overall these category members members cause reversible irritation to skin and eyes, with EGBEA ars. EGPE and EGBE are not sensitisers in experimental animals or t with haemolysis (with the exception of EGHE) and non-specific CNS tabolites, propoxyacetic acid (PAA) and butoxyacetic acid (BAA), are is deliberately ingesting cleaning fluids containing 9-22% EGBE are preased blood haemoglobin and/or haemoglobinuria were observed in or haemodilution as a result of administration of large volumes of fluid. In EGPE and EGBE <i>in vitro</i> than those of rats. icity of EGBE is less than that of EGPE is consistent with red blood , hamsters, rabbits and baboons were sensitive to the effects of BAA <i>in</i> ling (increased haematocrit and mean corpuscular hemoglobin), ea pigs was less sensitive to haemolysis by BAA <i>in vitro</i> . GBE tested negative for mutagenicity in Ames tests conducted in S. HE tested negative in strains TA98, TA100, TA1535, TA1537 and th EGBE and EGHE in Chinese Hamster Ovary Cells with and without	

	metabolic activation and in vivo micronucleus tests of genotoxic. Carcinogenicity: In a 2-year inhalation chronic toxi incidence of liver haemangiosarcomas was seen in mode of action data available, there was no significit. Reproductive and developmental toxicity . The re- this category are not selectively toxic to the reprodu The repeated dose toxicity studies in which reprodu associated with toxicity to reproductive organs (inclu- Results of the developmental toxicity studies condu- ppm or 531, 1062, or 2125 mg/m3 and rats - 100, 21 200 ppm or 121, 241, 483, or 966 mg/m3), and EGH members of the category are not teratogenic. The NOAELs for developmental toxicity are greater	with EGBE in rats and mice were neg- city and carcinogenicity study with EG male mice and forestomach tumours ant hazard for human carcinogenicity sults of reproductive and developme ctive system or developing fetus, dev ctive organs were examined indicate Juling the testes). cted via inhalation exposures during i 00, 300, 400 ppm or 425, 850, 1275, 1E (rat and rabbit - 20.8, 41.4, 79.2 p than 500 ppm or 2125 mg/m3 (rabbit	GBE in rats and mice a significant increase in the in female mice. It was decided that based on the intal toxicity studies indicate that the glycol ethers in relopmental toxicity is secondary to maternal toxicity. that the members of this category are not gestation periods on EGPE (rabbits -125, 250, 500 or 1700 mg/m3), EGBE (rat and rabbit - 25, 50, 100, pm or 124, 248, or 474 mg/m3) indicate that the the EGPE), 100 pm or 425 mg/m3 (rat-EGPE), 50
	Animal testing showed that exposure to ethylene gly effects were thought to be less than that of other mo Chronic exposure may cause anaemia, with enlarge cause generalized clotting and bone infarction. In an	vicol monobutyl ether resulted in toxic proalkyl ethers of ethylene glycol. ement and fragility of red blood cells. nimals, 2-butoxyethanol also increase	It is thought that in animals butoxyethanol may ad the rate of some cancers, including liver cancer.
ALCOHOLS C13-15- BRANCHED AND LINEAR, ETHOXYLATED	Humans have regular contact with alcohol ethoxylates through a variety of industrial and consumer products such as soaps, detergents and other cleaning products. Exposure to these chemicals can occur through swallowing, inhalation, or contact with the skin or eyes. Studies of acute toxicity show that relatively high volumes would have to occur to produce any toxic response. No death due to poisoning with alcohol ethoxylates have low toxicity through swallowing and skin contact. Animal studies show these chemicals may produce gastrointestinal irritation, stomach ulcers, hair standing up, diarrhea and lethargy. Slight to severe irritation occurred when undiluted alcohol ethoxylates were applied to the skin and eyes of animals. These chemicals show no indication of genetic toxicity or potential to cause mutations and cancers. Toxicity is thought to be substantially lower than that of nonylphenol ethoxylates. Some of the oxidation products of this group of substances may have sensitizing properties. As they cause less irritation, nonionic surfactants are often preferred to ionic surfactants in topical products. However, their tendency to autooxidise also increases their irritation. Due to their irritating effect it is difficult to diagnose allergic contact dermatitis (ACD) by patch testing. Both laboratory and animal testing has shown that there is no evidence for alcohol ethoxylates (AEs) causing genetic damage, mutations or cancer. No adverse reproductive or developmental effects were observed.		
HYDROCARBONS, C9, AROMATIC & AMMONIA	Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production.		
HYDROCARBONS, C9, AROMATIC & AMMONIA & PROPANE & ALCOHOLS C13-15-BRANCHED AND LINEAR, ETHOXYLATED	No significant acute toxicological data identified in literature search.		
AMMONIA & ETHYLENE GLYCOL MONOBUTYL ETHER	The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.		
Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	¥	Reproductivity	×
Serious Eye Damage/Irritation	~	STOT - Single Exposure	*
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×

SECTION 12 Ecological information

Toxicity					
	Endpoint	Test Duration (hr)	Species	Value	Source
JLM Intake Cleaner 500m	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	>500mg/l	2
propylene glycol	EC50(ECx)	168h	Algae or other aquatic plants	>1000mg/l	1
monomethyl ether - alpha	EC50	48h	Crustacea	23300mg/l	1
isomer	LC50	96h	Fish	>2000mg/l	Not Available
	EC50	96h	Algae or other aquatic plants	>1000mg/l	2
	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	0.29mg/l	2
hydrocarbons, C9, aromatic	EC50	48h	Crustacea	6.14mg/l	2
	NOEC(ECx)	72h	Algae or other aquatic plants	0.07mg/l	2
	LC50	96h	Fish	9.22mg/l	2

Legend:

Continued...

X − Data either not available or does not fill the criteria for classification
→ Data available to make classification

	Endpoint	Test Duration (hr)	Species	Value	Source
ammonia	LC50	96h	Fish	33.3mg/L	4
	EC50(ECx)	96h	Crustacea	0.83mg/L	5
	Endpoint	Test Duration (hr)	Species	Value	Source
propane	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	623mg/l	2
ethylene glycol monobutyl	EC10(ECx)	48h	Crustacea	7.2mg/l	2
ether	EC50	48h	Crustacea	164mg/l	2
	LC50	96h	Fish	1250mg/l	2
	EC50	96h	Algae or other aquatic plants	720mg/l	2
alaphala C12 15 branchad	Endpoint	Test Duration (hr)	Species	Value	Source
and linear, ethoxylated	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
h	EC50(ECx)	96h	Algae or other aquatic plants	7.71mg/l	2
butane	LC50	96h	Fish	24.11mg/l	2
	EC50	96h	Algae or other aquatic plants	7.71mg/l	2
	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	24.11mg/l	2
iso-butane	EC50	96h	Algae or other aquatic plants	7.71mg/l	2
	EC50(ECx)	96h	Algae or other aquatic plants	7.71mg/l	2
Legend:	Extracted from Ecotox databa (Japan) - Biog	1. IUCLID Toxicity Data 2. Europe E se - Aquatic Toxicity Data 5. ECETOU procentration Data 8. Vendor Data	CHA Registered Substances - Ecotoxicological Inform C Aquatic Hazard Assessment Data 6. NITE (Japan) - I	ation - Aquatic Toxicity Bioconcentration Data	4. US EPA 7. METI

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

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air	
propylene glycol monomethyl ether - alpha isomer	LOW (Half-life = 56 days)	LOW (Half-life = 1.7 days)	
propane	LOW	LOW	
ethylene glycol monobutyl ether	LOW (Half-life = 56 days)	LOW (Half-life = 1.37 days)	
butane	LOW	LOW	
iso-butane	HIGH	HIGH	

Bioaccumulative potential

Ingredient	Bioaccumulation
propylene glycol monomethyl ether - alpha isomer	LOW (BCF = 2)
propane	LOW (LogKOW = 2.36)
ethylene glycol monobutyl ether	LOW (BCF = 2.51)
butane	LOW (LogKOW = 2.89)
iso-butane	LOW (BCF = 1.97)

Mobility in soil

	Ingredient	Mobility	
	propylene glycol monomethyl ether - alpha isomer	HIGH (Log KOC = 1)	
	propane	LOW (Log KOC = 23.74)	
	ethylene glycol monobutyl ether	HIGH (Log KOC = 1)	
	butane	LOW (Log KOC = 43.79)	
	iso-butane	LOW (Log KOC = 35.04)	

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.
 Consult State Land Waste Management Authority for disposal.
 Discharge contents of damaged aerosol cans at an approved site.
Allow small quantities to evaporate.
DO NOT incinerate or puncture aerosol cans.
 Bury residues and emptied aerosol cans at an approved site.

SECTION 14 Transport information

Labels	Required	
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Land transport (ADG)

14.1. UN number or ID number	1950		
14.2. UN proper shipping name	AEROSOLS (contains butane, iso-butane and propane)		
14.3. Transport hazard class(es)	Class2.2Subsidiary Hazard8		
14.4. Packing group	Not Applicable		
14.5. Environmental hazard	Not Applicable		
14.6. Special precautions for user	Special provisions63 190 277 327 344 381Limited quantity1000ml		

Air transport (ICAO-IATA / DGR)

14.1. UN number	1950			
14.2. UN proper shipping name	Aerosols, non-flammable, containin	g substances in Class 8, Pao	cking Group III (conta	ins butane, iso-butane and propane)
14.3. Transport hazard class(es)	ICAO/IATA Class ICAO / IATA Subsidiary Hazard	2.2 8		
	ERG Code	2C		
14.4. Packing group	Not Applicable			
14.5. Environmental hazard	Not Applicable			
	Special provisions		A145 A167 A802	
	Cargo Only Packing Instructions		203	a
14.6. Special precautions for user	Cargo Only Maximum Qty / Pack		150 kg	-
	Passenger and Cargo Packing Instructions		203	
	Passenger and Cargo Maximum Qty / Pack		75 kg	_
	Passenger and Cargo Limited Quantity Packing Instructions		Y203	_
	Passenger and Cargo Limited Maximum Qty / Pack		30 kg G	

Sea transport (IMDG-Code / GGVSee)

14.1. UN number	1950		
14.2. UN proper shipping name	AEROSOLS (contains butane, iso-butane and propane)		
14.3. Transport hazard class(es)	IMDG Class IMDG Subsidiary Hazard	2.2 8	
14.4. Packing group	Not Applicable		
14.5 Environmental hazard	Not Applicable		
	EMS Number F-D	0, S-U	

14.6. Special precautions for	Special provisions	63 190 277 327 344 381 959
usei	Limited Quantities	1000 ml

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code Not Applicable

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

Product name	Group
propylene glycol monomethyl ether - alpha isomer	Not Available
hydrocarbons, C9, aromatic	Not Available
ammonia	Not Available
propane	Not Available
ethylene glycol monobutyl ether	Not Available
alcohols C13-15-branched and linear, ethoxylated	Not Available
butane	Not Available
iso-butane	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
propylene glycol monomethyl ether - alpha isomer	Not Available
hydrocarbons, C9, aromatic	Not Available
ammonia	Not Available
propane	Not Available
ethylene glycol monobutyl ether	Not Available
alcohols C13-15-branched and linear, ethoxylated	Not Available
butane	Not Available
iso-butane	Not Available

SECTION 15 Regulatory information

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

propylene glycol monomethyl ether - alpha isomer is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australian Inventory of Industrial Chemicals (AIIC)

hydrocarbons, C9, aromatic is found on the following regulatory lists

Not Applicable

ammonia 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)

propane is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals 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 - Not Classified as Carcinogenic

alcohols C13-15-branched and linear, ethoxylated is found on the following regulatory lists

Not Applicable

butane is found on the following regulatory lists

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

iso-butane is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australian Inventory of Industrial Chemicals (AIIC)

Chemical Footprint Project - Chemicals of High Concern List

Additional Regulatory Information

Not Applicable

National Inventory Status	
National Inventory	Status
Australia - AIIC / Australia Non- Industrial Use	No (hydrocarbons, C9, aromatic; alcohols C13-15-branched and linear, ethoxylated)
Canada - DSL	No (hydrocarbons, C9, aromatic; alcohols C13-15-branched and linear, ethoxylated)
Canada - NDSL	No (propylene glycol monomethyl ether - alpha isomer; hydrocarbons, C9, aromatic; ammonia; propane; ethylene glycol monobutyl ether; butane; iso-butane)
China - IECSC	No (hydrocarbons, C9, aromatic)
Europe - EINEC / ELINCS / NLP	No (hydrocarbons, C9, aromatic)
Japan - ENCS	No (hydrocarbons, C9, aromatic)
Korea - KECI	No (hydrocarbons, C9, aromatic; alcohols C13-15-branched and linear, ethoxylated)
New Zealand - NZIoC	No (hydrocarbons, C9, aromatic)
Philippines - PICCS	No (hydrocarbons, C9, aromatic; alcohols C13-15-branched and linear, ethoxylated)
USA - TSCA	No (hydrocarbons, C9, aromatic)
Taiwan - TCSI	No (hydrocarbons, C9, aromatic)
Mexico - INSQ	No (hydrocarbons, C9, aromatic; alcohols C13-15-branched and linear, ethoxylated)
Vietnam - NCI	Yes
Russia - FBEPH	No (hydrocarbons, C9, aromatic; alcohols C13-15-branched and linear, ethoxylated)
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	26/07/2024
Initial Date	24/07/2024

SDS Version Summary

Version	Date of Update	Sections Updated
3.1	26/07/2024	Physical and chemical properties - Appearance, Exposure controls / personal protection - Exposure Standard, Firefighting measures - Fire Fighter (fire/explosion hazard), Handling and storage - Storage (storage requirement), Toxicological information - Toxicity and Irritation (Other), Identification of the substance / mixture and of the company / undertaking - 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 DNEL: Derived No-Effect Level
- PNEC: Predicted no-effect concentration
- AllC: 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
- INSQ: Inventario Nacional de Sustancias Químicas
- NCI: National Chemical Inventory
 FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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