GSB Chemical Co.

Chemwatch: **8500-92** Version No: **8.1.1.1**

Safety Data Sheet according to WHS and ADG requirements

Chemwatch Hazard Alert Code: 2

Issue Date: 15/04/2014 Print Date: 30/10/2015 Initial Date: Not Available S.GHS.AUS.EN

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

Product Identifier

Product name	120 Wash	
Synonyms	anket and roller wash, Product Code: T120	
Proper shipping name	FLAMMABLE LIQUID, N.O.S. (contains naphtha petroleum, heavy, hydrotreated)	
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 quantity 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. Blanket, roller and dampeners wash. Swabbed on.

Details of the supplier of the safety data sheet

Registered company name	GSB Chemical Co.	
Address	Camp Road Broadmeadows 3047 VIC Australia	
Telephone	1 3 9457 1125 (8am-5pm, Monday - Friday)	
Fax	61 3 9459 7978	
Website	Not Available	
Email	info@gsbchem.com.au	

Emergency telephone number

Association / Organisation	Not Available	
Emergency telephone numbers	-61 3 9457 1125 (8am-5pm, Monday - Friday)	
Other emergency telephone numbers	13 11 26 (After hours)	

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

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

Poisons Schedule	S5	
GHS Classification ^[1]	Flammable Liquid Category 3, Eye Irritation Category 2A, STOT - SE (Resp. Irr.) Category 3, STOT - SE (Narcosis) Category 3, Aspiration Hazard Category 1, Chronic Aquatic Hazard Category 4	
Legend: 1. Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI		

Label elements

GHS label elements







SIGNAL WORD DANGER

Hazard statement(s)

H226	Flammable liquid and vapour
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H304	May be fatal if swallowed and enters airways
H413	May cause long lasting harmful effects to aquatic life

Issue Date: **15/04/2014**Print Date: **30/10/2015**

AUH066	Repeated exposure may cause skin dryness and cracking	
Precautionary statement(s) Prevention	
P210	Keep away from heat/sparks/open flames/hot surfaces No smoking.	
P271	Use only outdoors or in a well-ventilated area.	
P240	Ground/bond container and receiving equipment.	
P241	Use explosion-proof electrical/ventilating/lighting//equipment.	
P242	Use only non-sparking tools.	
P243	Take precautionary measures against static discharge.	
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.	
P273	Avoid release to the environment.	
P280	Wear protective gloves/protective clothing/eye protection/face protection.	

Precautionary statement(s) Response

P301+P310	F SWALLOWED: Immediately call a POISON CENTER or doctor/physician.	
P331	Do NOT induce vomiting.	
P370+P378	case of fire: Use water spray/fog for extinction.	
P305+P351+P338	N EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P312	Call a POISON CENTER or doctor/physician if you feel unwell.	
P337+P313	eye irritation persists: Get medical advice/attention.	
P303+P361+P353	F ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.	
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.	

Precautionary statement(s) Storage

P403+P235	Store in a well-ventilated place. Keep cool.	
P405	Store locked up.	
P403+P233	233 Store in a well-ventilated place. Keep container tightly closed.	

Precautionary statement(s) Disposal

P501 Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
64742-48-9.	30-60	naphtha petroleum, heavy, hydrotreated
64742-95-6.	30-60	naphtha petroleum, light aromatic solvent
111-90-0	10-<30	diethylene glycol monoethyl ether
107-98-2	<10	propylene glycol monomethyl ether - alpha isomer
Not Available	<10	non-ionic surfactants and perfume

SECTION 4 FIRST AID MEASURES

Description of 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 furnes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor. 	
Ingestion	 If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. 	

Issue Date: 15/04/2014 Print Date: 30/10/2015

- ▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice
- Avoid giving milk or oils.
- Avoid giving alcohol.

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.

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

- ▶ Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
- Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO2 50 mm Hg) should be intubated.
- Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- Figure Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
- Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology] Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

- Water spray or fog
- Alcohol stable foam.
- Dry chemical powder.
- Carbon dioxide

Do not use a water jet to fight fire.

Special hazards arising from the substrate or mixture

Special nazards arising ire	special nazards 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. 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. 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. 	
	 Liquid and vapour are flammable. Moderate fire hazard when exposed to heat or flame. 	

Fire/Explosion Hazard

- Vapour forms an explosive mixture with air.
- ▶ Moderate explosion hazard when exposed to heat or flame.
- 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).

▶ Collect solid residues and seal in labelled drums for disposal

▶ Wash area and prevent runoff into drains.

Combustion products include; 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. May emit clouds of acrid smoke

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures					
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. 				
Major Spills	 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. 				

Version No: **8.1.1.1**

Issue Date: **15/04/2014**Print Date: **30/10/2015**

▶ 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:

Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately.

- Check for bulging containers.
- Vent periodically
- ▶ Always release caps or seals slowly to ensure slow dissipation of vapours
- ► DO NOT allow clothing wet with material to stay in contact with skin
- ▶ Electrostatic discharge may be generated during pumping this may result in fire.
- ▶ Ensure electrical continuity by bonding and grounding (earthing) all equipment.
- ► Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<=1 m/sec until fill pipe submerged to twice its diameter, then <= 7 m/sec).
- Avoid splash filling.
- ▶ Do NOT use compressed air for filling discharging or handling operations.
- Avoid all personal contact, including inhalation.
- ▶ Wear protective clothing when risk of overexposure occurs.

Safe handling

- Use in a well-ventilated area.Prevent concentration in hollows and sumps.
- ► DO NOT enter confined spaces until atmosphere has been checked.
- Avoid smoking, naked lights or ignition sources.
- Avoid generation of static electricity.
- ► DO NOT use plastic buckets.
- Earth all lines and equipment.
- Use spark-free tools when handling.
- Avoid contact with incompatible materials.
- When handling. DO NOT eat, drink or smoke
- When thanding, DO NOT eat, drink of stricke.
- ▶ Keep containers securely sealed when not in use.
- ▶ Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately
- ▶ Use good occupational work practice
- ▶ Observe manufacturer's storage and handling recommendations contained within this SDS.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.

▶ Store in original containers in approved flammable liquid storage area.

- ▶ Store away from incompatible materials in a cool, dry, well-ventilated area.
- ▶ DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- $\,\blacktriangleright\,$ No smoking, naked lights, heat or ignition sources.
- Storage areas should be clearly identified, well illuminated, clear of obstruction and accessible only to trained and authorised personnel adequate security must be provided so that unauthorised personnel do not have access.
- ► Store according to applicable regulations for flammable materials for storage tanks, containers, piping, buildings, rooms, cabinets, allowable quantities and minimum storage distances.
- ▶ Use non-sparking ventilation systems, approved explosion proof equipment and intrinsically safe electrical systems.
- ► Have appropriate extinguishing capability in storage area (e.g. portable fire extinguishers dry chemical, foam or carbon dioxide) and flammable gas detectors.
- ▶ Keep adsorbents for leaks and spills readily available.
- Protect containers against physical damage and check regularly for leaks.
- ▶ Observe manufacturer's storage and handling recommendations contained within this SDS.

In addition, for $\,$ tank storages (where appropriate):

- ▶ Store in grounded, properly designed and approved vessels and away from incompatible materials.
- For bulk storages, consider use of floating roof or nitrogen blanketed vessels; where venting to atmosphere is possible, equip storage tank vents with flame arrestors; inspect tank vents during winter conditions for vapour/ ice build-up.
- Storage tanks should be above ground and diked to hold entire contents.

Conditions for safe storage, including any incompatibilities

- ► 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

Suitable container

Other information

► Avoid reaction with oxidising agents

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Chemwatch: 8500-92 Version No: 8.1.1.1

Page 5 of 11

T120 Wash

Issue Date: 15/04/2014 Print Date: 30/10/2015

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	propylene glycol monomethyl ether - alpha isomer	Propylene glycol monomethyl ether	369 mg/m3 / 100 ppm	553 mg/m3 / 150 ppm	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
naphtha petroleum, heavy, hydrotreated	Naphtha, hydrotreated heavy; (Isopar L-rev 2)	171 ppm	171 ppm	570 ppm
naphtha petroleum, light aromatic solvent	Aromatic hydrocarbon solvents; (High flash naphtha distillates; Solvent naphtha (petroleum), light aromatic)	3.1 ppm	34 ppm	410 ppm
diethylene glycol monoethyl ether	Ethoxyethoxy)ethanol, 2-(2-; (Carbitol cellosolve; Diethylene glycol monoethyl ether)	75 ppm	79 ppm	200 ppm
propylene glycol monomethyl ether - alpha isomer	Propylene glycol monomethyl ether; (Ucar Triol HG-170)	150 ppm	150 ppm	470 ppm

Ingredient	Original IDLH	Revised IDLH
naphtha petroleum, heavy, hydrotreated	Not Available	Not Available
naphtha petroleum, light aromatic solvent	Not Available	Not Available
diethylene glycol monoethyl ether	Not Available	Not Available
propylene glycol monomethyl ether - alpha isomer	Not Available	Not Available
non-ionic surfactants and perfume	Not Available	Not Available

Exposure 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

Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Appropriate engineering controls

Type of Contaminant:	Air Speed:	
solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min.)	
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)	
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	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

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 point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity 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.

Personal protection









Eye and face protection

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

Issue Date: 15/04/2014 Print Date: 30/10/2015

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/NZS 1336 or national equivalent] 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 material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice. Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: ▶ frequency and duration of contact, chemical resistance of glove material, Hands/feet protection glove thickness and dexterity Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent). ▶ When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. ▶ 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. 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 **Body protection** See Other protection below 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. Other protection 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 shoes should be stored in lockers close to the room 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 Not Available Thermal hazards

Respiratory protection

Not Available

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Clear flammable liquid with a characteristic odour; miscible	e with water.	
Physical state	#00Liquid	Relative density (Water = 1)	0.85
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	120-202	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	36	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Flammable.	Oxidising properties	Not Available
Upper Explosive Limit (%)	8.5	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1.3	Volatile Component (%vol)	98
Vapour pressure (kPa)	1.45	Gas group	Not Available
Solubility in water (g/L)	#01miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	> 1	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
------------	---------------

Issue Date: **15/04/2014**Print Date: **30/10/2015**

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 effect	Information	on	toxico	logical	effects
-------------------------------------	-------------	----	--------	---------	---------

	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.
Inhaled	Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual. There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Inhalation hazard is increased at higher temperatures. Inhaling high concentrations of mixed hydrocarbons can cause narcosis, with nausea, vomiting and lightheadedness. Low molecular weight (C2-C12)
	hydrocarbons can irritate mucous membranes and cause incoordination, giddiness, nausea, vertigo, confusion, headache, appetite loss, drowsiness, tremors and stupor. Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.
Ingestion	Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733) Accidental ingestion of the material may be damaging to the health of the individual. Ingestion of petroleum hydrocarbons can irritate the pharynx, oesophagus, stomach and small intestine, and cause swellings and ulcers of the mucous. Symptoms include a burning mouth and throat; larger amounts can cause nausea and vomiting, narcosis, weakness, dizziness, slow and shallow breathing, abdominal swelling, unconsciousness and convulsions.
Skin Contact	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. There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Open cuts, abraded or irritated skin should not be exposed to this material The material may accentuate any pre-existing dermatitis condition Aromatic hydrocarbons may produce sensitivity and redness of the skin. They are not likely to be absorbed into the body through the skin but branched species are more likely to.
Еуе	Direct eye contact with petroleum hydrocarbons can be painful, and the corneal epithelium may be temporarily damaged. Aromatic species can cause irritation and excessive tear secretion. There is some evidence that material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Moderate inflammation may be expected with redness; conjunctivitis may occur with prolonged exposure.
Chronic	Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin. Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS]
T400 W1	TOXICITY IRRITATION

T120 Wash	TOXICITY	IRRITATION
1120 wasn	Not Available	Not Available
	TOXICITY	IRRITATION
naphtha petroleum, heavy,	Dermal (rabbit) LD50: >1900 mg/kg ^[1]	[CCINFO-Shell]
hydrotreated	Oral (rat) LD50: >4500 mg/kg ^[1]	[EXXON]
		None reported
	TOXICITY	IRRITATION
naphtha petroleum, light	Dermal (rabbit) LD50: >1900 mg/kg ^[1]	Nil reported
aromatic solvent	Inhalation (rat) LC50: >3670 ppm/8 h *[2]	
	Oral (rat) LD50: >4500 mg/kg ^[1]	
diethylene glycol monoethyl	TOXICITY	IRRITATION
	dermal (rat) LD50: 5940 mg/kg ^[2]	Eye (rabbit): 125 mg mild
ether	Inhalation (rat) LC50: >5.24 mg/L/4H ^[2]	Eye (rabbit): 500 mg moderate
	Oral (rat) LD50: >4851<5 mg/kg ^[1]	Skin (rabbit): 500 mg/24h mild
	TOXICITY	IRRITATION
propylene glycol	dermal (rat) LD50: >2000 mg/kg ^[1]	Eye (rabbit) 230 mg mild
monomethyl ether - alpha	Inhalation (rat) LC50: 10000 ppm/5 h.d ^[2]	Eye (rabbit) 500 mg/24 h mild
isomer	Oral (rat) LD50: 5207.2 mg/kg ^[1]	Eye (rabbit): 100 mg SEVERE
		Skin (rabbit) 500 mg open - mild

Issue Date: **15/04/2014**Print Date: **30/10/2015**

T120 Wash

non-ionic surfactants and	TOXICITY	IRRITATION	
perfume	Not Available	Not Available	
Legend:	Value obtained from Europe ECHA Registered Substance extracted from RTECS - Register of Toxic Effect of chemical		from manufacturer's SDS. Unless otherwise specified data
Acute Toxicity	0	Carcinogenicity	0
Skin Irritation/Corrosion	0	Reproductivity	0
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	~
Respiratory or Skin sensitisation	0	STOT - Repeated Exposure	0
Mutagenicity	0	Aspiration Hazard	✓

Legend:

🗶 – Data available but does not fill the criteria for classification

✓ – Data required to make classification available

N - Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Ingredient	Endpoint	Test Duration	Species	Value	Source
naphtha petroleum, heavy, hydrotreated	EC50	96	Algae or other aquatic plants	640mg/L	2
naphtha petroleum, light aromatic solvent	EC50	48	Crustacea	6.14mg/L	1
naphtha petroleum, light aromatic solvent	EC50	72	Algae or other aquatic plants	3.290mg/L	1
naphtha petroleum, light aromatic solvent	EC10	72	Algae or other aquatic plants	1.130mg/L	1
diethylene glycol monoethyl ether	LC50	96	Fish	2095.933mg/L	3
diethylene glycol monoethyl ether	EC50	48	Crustacea	=3996.84915mg/L	4
diethylene glycol monoethyl ether	EC50	96	Algae or other aquatic plants	>100mg/L	2
propylene glycol monomethyl ether - alpha isomer	LC50	96	Fish	>=1000mg/L	2
propylene glycol monomethyl ether - alpha isomer	EC50	48	Crustacea	>500mg/L	2
propylene glycol monomethyl ether - alpha isomer	EC50	72	Algae or other aquatic plants	>500mg/L	2
propylene glycol monomethyl ether - alpha isomer	EC0	3	Crustacea	=500mg/L	1
propylene glycol monomethyl ether - alpha isomer	EC100	3	Crustacea	>500mg/L	1

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

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

For Propylene Glycol Ethers: log Kow's range from 0.309 for TPM to 1.523 for DPnB. Calculated BCFs range from 1.47 for DPnB to 3.16 for DPMA and TPM, indicating low bioaccumulation. Henry's Law Constants are low for all category members, ranging from 5.7 x 10-9 atm-m3/mole for TPM to 2.7 x10-9 atm-m3/mole for PnB. Environmental Fate: Most are liquids at room temperature and all are water-soluble.

Atmospheric Fate: In air, the half-life due to direct reactions with photochemically generated hydroxyl radicals, range from 2.0 hours for TPM to 4.6 hours for PnB.

Aquatic/Terrestrial Fate: Most propylene glycol ethers are likely to partition roughly equally into the soil and water compartments in the environment with small to negligible amounts remaining in other environmental compartments (air, sediment, and aquatic biota). In water, most members of this family are "readily biodegradable" under aerobic conditions. In soil, biodegradation is rapid for PM and PMA.

Ecotoxicity: Propylene glycol ethers are unlikely to persist in the environment. Acute aquatic toxicity testing indicates low toxicity for both ethers and acetates.

Environmental Fate: Several glycol ethers have been shown to biodegrade however; biodegradation slows as molecular weight increases. No glycol ethers that have been tested demonstrate marked resistance to biodegradative processes. No glycol ethers that have been tested demonstrate marked resistance to biodegradative processes.

Atmospheric Fate: Upon release to the atmosphere by evaporation, high boiling glycol ethers are estimated to undergo photo-degradation (atmospheric half lives = 2.4-2.5 hr). Aquatic Fate: In water, glycol ethers undergo biodegradation (typically 47-92% after 8-21 days) and have a low potential for bioaccumulation (log Kow ranges from -1.73 to +0.51).

Ecotoxicity: Tri- and tetra ethylene glycol ethers are "practically non-toxic" to aquatic species. No major differences are observed in the order of toxicity going from the methyl- to the butyl ethers. Glycols exert a high oxygen demand for decomposition and once released to the environment death of aquatic organisms occurs if dissolved oxygen is depleted.

For Diethylene Glycol Monoalkyl Ethers and Their Acetates: Log Kow: -0.69 to +1.3; Koc: 1-10; Henry ◆s Law Constant: 8.63 E-10 to 9.91 E-8 atm-m3/mole.

Environmental Fate: When released equally to all environmental compartments, these substances will move primarily into the water and soil.

Atmospheric Fate: These substances are broken down by atmospheric hydroxyl radicals, with half-lives of 3.18-4.41 hours.

Terrestrial Fate: These substances are expected to be highly mobile in soil. Diethylene glycol ethyl ether, (DGEE), diethylene glycol hexyl ether, (DGHE), and diethylene glycol monobutyl ether acetate, (DGBEA), are readily biodegradable.

Aquatic Fate: Diethylene glycol ethers are soluble in water. Diethylene glycol ether, (DGEE), diethylene glycol propyl ether, (DGPE), and diethylene glycol hexyl ether, (DGHE) are not readily broken down in water. The acetate ester groups will break down in water at rates dependent on temperature, pH, and substances which may assist them in the breakdown process.

Issue Date: 15/04/2014 Print Date: 30/10/2015

Ecotoxicity: These substances are not expected to persist/accumulate in the environment. Since the acetates of these substances do not break down in water, the ethers are considered separately in aquatic toxicology data. Diethylene glycol ethers range from moderately toxic to non-toxic to fish and invertebrates. No algae data are available for the category members - based on data from supporting chemicals, toxicity is expected to be moderate, for DGHE, and non-toxic, for other category members.

For Petroleum Derivatives:

Environmental Fate: Chemical analysis for all individual compounds in a petroleum bulk product released to the environment is generally unrealistic due to the complexity of these mixtures and the laboratory expense. This is further complicated by differences in behavior of the substances in water, and biological/non-biological processes

Atmospheric Fate: Petroleum derivatives with high vapor pressures are expected to evaporate and become a vapor. The exact composition of these vapors depends on the composition of the original product. Compounds such as butane, propane, benzene, toluene, ethylbenzene and xylene are preferentially evaporated from gasoline.

Terrestrial Fate: Petroleum products migrate through soil as bulk flow or by the separation of individual compounds from the bulk flow. Bulk flow results in rapid soil infiltration. Factors affecting the rate of bulk oil infiltration include soil moisture content, vegetation, terrain, climate, rate of release, soil particle size, (e.g., sand versus clay), and oil viscosity, (e.g., gasoline versus motor oil). These substances can persist in soil for years, which can lead to contamination of groundwater. As the bulk product migrates through the soil column, individual compounds may separate from the mixture and migrate independently. Light-fraction hydrocarbons tend to migrate readily through soil and heavier weight petroleum is generally more persistent in soil. The presence of oil should

increase soil temperature, particularly at the surface. Aquatic Fate: Almost all motor and heating oils are less dense than water. Solubility of these substances generally decreases with increasing molecular weight. Many compounds that are insoluble/immobile in water are soluble in bulk oil and will migrate along with the bulk oil flow.

Biodegradation: Microbes found in many natural settings have been shown to degrade organic compounds; however, low rates of breakdown are expected and are limited by environmental factors and chemical composition of the product released. The final products of microbial degradation are carbon dioxide, water, and microbial biomass. In almost all cases, the presence of oxygen is essential for effective biodegradation of oil. Petroleum hydrocarbons in low oxygen environments have extremely low rates of degradation. The ideal pH range to promote biodegradation is close to neutral, (6-8). Soil moisture content will affect biodegradation of oils. Biodegradation rates in soils are also affected by the volume of product released to the environment. All biological transformations are affected by temperature. Generally, as the temperature increases, biological activity tends to increase up to a temperature where enzyme denaturation occurs. The optimal temperature for biodegradation to occur ranges from 18 C to 30C.

Ecotoxicity: Large amounts of petroleum derivatives that enter the environment are expected to cause serious long-term damage. Each oil spill will have a different impact on wildlife and the surrounding environment, depending on type of substance released, location, species affected, weather, etc. These substances can coat the bodies of wildlife with a thick layer which inhibits their activities. Ingestion of these substances by wildlife will lead to movement up the food chain.

DO NOT discharge into sewer or waterways.

May cause long-term adverse effects in the aquatic environment.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
diethylene glycol monoethyl ether	LOW (Half-life = 56 days)	LOW (Half-life = 0.93 days)
propylene glycol monomethyl ether - alpha isomer	LOW (Half-life = 56 days)	LOW (Half-life = 1.7 days)

Bioaccumulative potential

Ingredient	Bioaccumulation
diethylene glycol monoethyl ether	LOW (LogKOW = -0.54)
propylene glycol monomethyl ether - alpha isomer	LOW (BCF = 2)

Mobility in soil

Ingredient	Mobility
diethylene glycol monoethyl ether	HIGH (KOC = 1)
propylene glycol monomethyl ether - alpha isomer	HIGH (KOC = 1)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging

disposa

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.
- ▶ Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or Incineration in a licenced apparatus (after admixture with suitable combustible material)
- ▶ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

SECTION 14 TRANSPORT INFORMATION

Chemwatch: **8500-92**Version No: **8.1.1.1**

T120 Wash

Issue Date: 15/04/2014 Print Date: 30/10/2015



Marine Pollutant NO
HAZCHEM •3Y

Land transport (ADG)

UN number	1993
Packing group	III
UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (contains naphtha petroleum, heavy, hydrotreated)
Environmental hazard	No relevant data
Transport hazard class(es)	Class 3 Subrisk Not Applicable
Special precautions for user	Special provisions 223 274 Limited quantity 5 L

Air transport (ICAO-IATA / DGR)

Packing group UN proper shipping name Environmental hazard Transport hazard class(es) Transport hazard class(es) ERG Code Special precautions for user Passenger and Cargo Packing Instructions Passenger and Cargo Maximum Qty / Pack Passenger and Cargo Maximum Qty / Pack		,	
UN proper shipping name Environmental hazard ICAO/IATA Class ICAO / IATA Subrisk Not Applicable ERG Code ISPecial provisions Cargo Only Packing Instructions Cargo Only Maximum Qty / Pack Passenger and Cargo Packing Instructions	UN number	1993	
Environmental hazard No relevant data ICAO/IATA Class 3 ICAO / IATA Subrisk Not Applicable ERG Code 3L Special provisions Cargo Only Packing Instructions Cargo Only Maximum Qty / Pack Passenger and Cargo Packing Instructions	Packing group	III	
Transport hazard class(es) ICAO/IATA Class ICAO / IATA Subrisk Not Applicable ERG Code 3L Special provisions Cargo Only Packing Instructions Cargo Only Maximum Qty / Pack Passenger and Cargo Packing Instructions	UN proper shipping name	Flammable liquid, n.o.s. * (contains naphtha petroleum, heavy, hyd	drotreated
Transport hazard class(es) ICAO / IATA Subrisk Not Applicable ERG Code 3L Special provisions Cargo Only Packing Instructions Cargo Only Maximum Qty / Pack Passenger and Cargo Packing Instructions	Environmental hazard	No relevant data	
Cargo Only Packing Instructions Cargo Only Maximum Qty / Pack Special precautions for user Passenger and Cargo Packing Instructions	Transport hazard class(es)	ICAO / IATA Subrisk Not Applicable	
Cargo Only Maximum Qty / Pack Special precautions for user Passenger and Cargo Packing Instructions			A3
Special precautions for user Passenger and Cargo Packing Instructions		Cargo Only Packing Instructions	366
		Cargo Only Maximum Qty / Pack	220 L
Passenger and Cargo Maximum Qty / Pack	Special precautions for user	Passenger and Cargo Packing Instructions	
		Passenger and Cargo Maximum Qty / Pack	
Passenger and Cargo Limited Quantity Packing Instructions		Passenger and Cargo Limited Quantity Packing Instructions	Y344
Passenger and Cargo Limited Maximum Qty / Pack		Passenger and Cargo Limited Maximum Qty / Pack	10 L

Sea transport (IMDG-Code / GGVSee)

UN number	1993
Packing group	
UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (contains naphtha petroleum, heavy, hydrotreated)
Environmental hazard	Not Applicable
Transport hazard class(es)	IMDG Class 3 IMDG Subrisk Not Applicable
Special precautions for user	EMS Number F-E , S-E Special provisions 223 274 955 Limited Quantities 5 L

Transport in bulk according to Annex II of MARPOL 73 / 78 and the IBC code

Source	Ingredient	Pollution Category
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	naphtha petroleum, light aromatic solvent	Υ
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	propylene glycol monomethyl ether - alpha isomer	Z

SECTION 15 REGULATORY INFORMATION

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

NAPHTHA PETROLEUM, HEAVY, HYDROTREATED(64742-48-9.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

1.1.1 T120 Wash

Issue Date: **15/04/2014**Print Date: **30/10/2015**

Australia Hazardous Substances Information System - Consolidated Lists

Australia Inventory of Chemical Substances (AICS)

NAPHTHA PETROLEUM, LIGHT AROMATIC SOLVENT(64742-95-6.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Substances Information System - Consolidated Lists

Australia Inventory of Chemical Substances (AICS)

DIETHYLENE GLYCOL MONOETHYL ETHER(111-90-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

PROPYLENE GLYCOL MONOMETHYL ETHER - ALPHA ISOMER(107-98-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

Australia Inventory of Chemical Substances (AICS)

Australia Hazardous Substances Information System - Consolidated Lists

Not Applicable

Not Applicable	
National Inventory	Status
Australia - AICS	Υ
Canada - DSL	Y
Canada - NDSL	N (propylene glycol monomethyl ether - alpha isomer; naphtha petroleum, light aromatic solvent; naphtha petroleum, heavy, hydrotreated; diethylene glycol monoethyl ether)
China - IECSC	Υ
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	N (naphtha petroleum, heavy, hydrotreated)
Korea - KECI	Υ
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Other information

Ingredients with multiple cas numbers

Name	CAS No
naphtha petroleum, heavy, hydrotreated	101795-02-2., 64742-48-9.
naphtha petroleum, light aromatic solvent	25550-14-5., 64742-95-6.

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.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net

The (M)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

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