Damar Industries Limited

Version No: **2.8**Safety Data Sheet according to HSNO Regulations

Chemwatch Hazard Alert Code: 4

Issue Date: 18/12/2017 Print Date: 28/08/2018 S.GHS.NZL.EN

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

Product name Guardsman Fabric Protector Synonyms CQX1204 Proper shipping name AEROSOLS (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 Interior fabric Protector

Details of the supplier of the safety data sheet

Registered company name	Damar Industries Limited
Address	800 Te Ngae Road BOP New Zealand
Telephone	+64 7 345 6007
Fax	+64 7 345 6019
Website	www.damarindustries.co.nz
Email	info@damarindustries.co.nz

Emergency telephone number

Association / Organisation	CHEMCALL (0800 CHEMCALL)
Emergency telephone numbers	0800 243 622
Other emergency telephone numbers	1800 243 622(outside New Zealand)

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Classified as Dangerous Goods for transport purposes.

CHEMWATCH HAZARD RATINGS

	Min	Max	
Flammability	4		
Toxicity	0		0 = Minimum
Body Contact	1		1 = Low 2 = Moderate
Reactivity	0		3 = High
Chronic	2		4 = Extreme

Classification [1]	Aerosols Category 1, Skin Corrosion/Irritation Category 3, Carcinogenicity Category 2, Specific target organ toxicity - repeated exposure Category 1
Legend:	1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI
Determined by Chemwatch using GHS/HSNO criteria	6.7B, 6.3B, 6.9A, 2.1.2A

Label elements

Hazard pictogram(s)





SIGNAL	WORD	DANGE
SIGNAL	WURD	DANGE

Hazard statement(s)

H222	Extremely flammable aerosol.	
H316	Causes mild skin irritation.	
H351	Suspected of causing cancer.	

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H372	Causes damage to organs through prolonged or repeated exposure.	
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.	
P211	Do not spray on an open flame or other ignition source.	
P251	Do not pierce or burn, even after use.	
P210 P211	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source.	

Precautionary statement(s) Response

P308+P313	IF exposed or concerned: Get medical advice/ attention.
P314	Get medical advice/attention if you feel unwell.
P332+P313	If skin irritation occurs: Get medical advice/attention.

Precautionary statement(s) Storage

P405	Store locked up.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

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
8052-41-3.*	1-10	Stoddard Solvent
546-68-9*	<1	titanium(IV) isopropoxide
1330-20-7*	<1	xylene
64742-48-9.*	60-80	naphtha petroleum, heavy, hydrotreated
106-97-8.*	10-20	butane
74-98-6*	10-20	propane

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 with fresh running water. Immediately hold the eyelids apart and flush the eye 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. Generally not applicable.
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. Generally not applicable.
Inhalation	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. Generally not applicable.
Ingestion	Not considered a normal route of entry. ▶ Generally not applicable.

Indication of any immediate medical attention and special treatment needed

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

Treat symptomatically.

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

Fire Fighting

- ▶ Alert Fire Brigade and tell them location and nature of hazard.
- ► May be violently or explosively reactive.
- $\blacktriangleright \ \ \text{Wear breathing apparatus plus protective gloves}.$
- ▶ Prevent, by any means available, spillage from entering drains or water course.

Slight hazard when exposed to heat, flame and oxidisers.

- ► Liquid and vapour are highly flammable.
- Severe fire hazard when exposed to heat or flame.
- ► Vapour forms an explosive mixture with air.

Fire/Explosion Hazard

• Severe explosion hazard, in the form of vapour, when exposed to flame or spark.

Articles and manufactured articles may constitute a fire hazard where polymers form their outer layers or where combustible packaging remains in place. Certain substances, found throughout their construction, may degrade or become volatile when heated to high temperatures. This may create a secondary hazard.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	 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.
Major Spills	 Clear area of all unprotected personnel and move upwind. Alert Emergency Authority and advise them of the location and nature of hazard. May be violently or explosively reactive. Wear full body clothing with breathing apparatus. 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 NOT attempt 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. Clean up all spills immediately. Wear protective clothing, safety glasses, dust mask, gloves. Secure load if safe to do so. Bundle/collect recoverable product.

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Precautions for safe nandling	
Safe handling	 Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps.
Other information	 Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can Store in original containers in approved flammable liquid storage area. DO NOT store in pits, depressions, basements or areas where vapours may be trapped. No smoking, naked lights, heat or ignition sources. Keep containers securely sealed. Store away from incompatible materials.

Conditions for safe storage, including any incompatibilities

Suitable container	Generally packaging as originally supplied with the article or manufactured item is sufficient to protect against physical hazards. If repackaging is required ensure the article is intact and does not show signs of wear. As far as is practicably possible, reuse the original packaging or something providing a similar level of protection to both the article and the handler. Aerosol dispenser. Check that containers are clearly labelled.
Storage incompatibility	 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 Avoid reaction with oxidising agents

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

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Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
New Zealand Workplace Exposure Standards (WES)	Stoddard Solvent	White spirits (Stoddard solvent)	100 ppm / 525 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	xylene	Dimethylbenzene (see Xylene)	50 ppm / 217 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	naphtha petroleum, heavy, hydrotreated	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	(om) - Sampled by a method that does not collect vapour.
New Zealand Workplace Exposure Standards (WES)	butane	Butane	800 ppm / 1900 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	propane	Propane	Not Available	Not Available	Not Available	Simple asphyxiant - may present an explosion hazard

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
Stoddard Solvent	Stoddard solvent; (Mineral spirits, 85% nonane and 15% trimethyl benzene)	300 mg/m3	1,800 mg/m3	29500 mg/m3
titanium(IV) isopropoxide	Isopropyl titanate(IV); (Titanium(IV) isopropoxide)	22 mg/m3	250 mg/m3	1,500 mg/m3
xylene	Xylenes	Not Available	Not Available	Not Available
naphtha petroleum, heavy, hydrotreated	Naphtha, hydrotreated heavy; (Isopar L-rev 2)	350 mg/m3	1,800 mg/m3	40,000 mg/m3
butane	Butane	Not Available	Not Available	Not Available
propane	Propane	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
Stoddard Solvent	20,000 mg/m3	Not Available
titanium(IV) isopropoxide	Not Available	Not Available
xylene	900 ppm	Not Available
naphtha petroleum, heavy, hydrotreated	2,500 mg/m3	Not Available
butane	Not Available	1,600 ppm
propane	2,100 ppm	Not Available

Exposure controls

Appropriate engineering

Articles or manufactured items, in their original condition, generally don't require engineering controls during handling or in normal use.

Exceptions may arise following extensive use and subsequent wear, during recycling or disposal operations where substances, found in the article, may be released to the environment.

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be

highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

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

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

Personal protection







Personal protection

► 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.

Eye and face protection

No special equipment for minor exposure i.e. when handling small quantities.

OTHERWISE: For potentially moderate or heavy exposures:

- Safety glasses with side shields.
- ▶ NOTE: Contact lenses pose a special hazard; soft lenses may absorb irritants and ALL lenses concentrate them.

No special equipment required due to the physical form of the product.

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

Skin protection

Hands/feet protection

See Hand protection below

Wear general protective gloves, eg. light weight rubber gloves.

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.

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Body protection

See Other protection below

- ► The clothing worn by process operators insulated from earth may develop static charges far higher (up to 100 times) than the minimum ignition energies for various flammable gas-air mixtures. This holds true for a wide range of clothing materials including cotton.
- ▶ Avoid dangerous levels of charge by ensuring a low resistivity of the surface material worn outermost.

BRETHERICK: Handbook of Reactive Chemical Hazards.

Other protection

No special equipment needed when handling small quantities.

OTHERWISE:

- Overalls.
- ► Skin cleansing cream.
- ► Eyewash unit.

No special equipment required due to the physical form of the product.

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:

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Material	СРІ
PE/EVAL/PE	Α
PVA	Α
TEFLON	Α
VITON	Α
BUTYL	С
BUTYL/NEOPRENE	С
HYPALON	С
NAT+NEOPR+NITRILE	С
NATURAL+NEOPRENE	С
NEOPRENE	С
NEOPRENE/NATURAL	С
NITRILE	С
NITRILE+PVC	С
PVC	С
PVDC/PE/PVDC	С

^{*} CPI - Chemwatch Performance Index

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

Respiratory protection

Respiratory protection not normally required due to the physical form of the product.

Generally not applicable.

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.

- Positive pressure, full face, air-supplied breathing apparatus should be used for work in enclosed spaces if a leak is suspected or the primary containment is to be opened (e.g. for a cylinder change)
- Air-supplied breathing apparatus is required where release of gas from primary containment is either suspected or demonstrated.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Aerosol		
Physical state	article	Relative density (Water = 1)	0.694
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	431
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)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	-81	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	HIGHLY FLAMMABLE.	Oxidising properties	Not Available
Upper Explosive Limit (%)	10	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1.5	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Immiscible	pH as a solution (1%)	Not Applicable

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

^{*} Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

Vapour density (Air = 1) Not Available

VOC g/L Not Available

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	The material is not thought to produce adverse health effects or irritation of Nevertheless, good hygiene practice requires that exposure be kept to a min The vapour is discomforting WARNING:Intentional misuse by concentrating/inhaling contents may be let	imum and that suitable control measures be used in an occupational setting.		
Ingestion	Not normally a hazard due to physical form of product. Considered an unlikely route of entry in commercial/industrial environments			
Skin Contact	Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry brough wounds, lesions or abrasions. There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Spray mist may produce discomfort Dipen 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.			
Еуе	Although the material is not thought to be an irritant (as classified by EC Dire characterised by tearing or conjunctival redness (as with windburn). Not considered to be a risk because of the extreme volatility of the gas.	ectives), direct contact with the eye may produce transient discomfort		
Chronic	There has been concern that this material can cause cancer or mutations, bu Toxic: danger of serious damage to health by prolonged exposure through in This material can cause serious damage if one is exposed to it for long perio defects. Main route of exposure to the gas in the workplace is by inhalation.	· ·		
	TOXICITY	IRRITATION		
Guardsman Fabric Protector	Not Available	Not Available		
	TOXICITY	IRRITATION		
Stoddard Solvent	Inhalation (rat) LC50: 5500 mg/m3/4h ^[2]	Eye (hmn) 470 ppm/15m irrit.		
	Oral (rat) LD50: 5000 mg/kg ^[2]	Eye (rabbit) 500 mg/24h moderate		
	TOXICITY	IRRITATION		
	Dermal (rabbit) LD50: 16000 mg/kg ^[2]	Eye (rabbit): 20 mg/24h - mod		
titanium(IV) isopropoxide	Inhalation (rat) LC50: 7.78 mg/L./4h * ^[2]	Eye human: SEVERE * * = DUPONT		
	Oral (rat) LD50: 7460 mg/kg ^[2]	Skin (rabbit): 500 mg/24h - mild		
	TOXICITY	IRRITATION		
	Inhalation (Human) TCLo: 200 ppm ^[2]	Eye (human): 200 ppm irritant		
	Inhalation (Human) TCLo: 200 ppm/4h ^[2]	Eye (rabbit): 5 mg/24h SEVERE		
	Inhalation (man) LCLo: 10000 ppm/6h ^[2]	Eye (rabbit): 87 mg mild		
	Inhalation (rat) LC50: 5000 ppm/4h ^[2]	Skin (rabbit):500 mg/24h moderate		
	Inhalation (Guinea Pig)LC: 450 ppm/4h ^[2]			
xylene	Intraperitoneal (Mouse) LD50: 1548 mg/kg ^[2]			
	Intraperitoneal (Rat) LD50: 2459 mg/kg ^[2]			
	Intravenous (Rabbit) LD: 129 mg/kg ^[2]			
	Oral (mouse) LD50: 2119 mg/kg ^[2]			

Oral (rat) LD50: 4300 $mg/kg^{[2]}$ Oral (Human)LD: 50 mg/kg^[2]

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TOXICITY IRRITATION Demail (Fall LOSD: 100 mg/mg ^[2] Not Available		Oral (Human)LDLo: 50 mg/kg ^[2]			
naphtha petroleum, heavy hydrotreated hydro		Subcutaneous (Rat) LD50: 1700 mg/kg ^[2]			
Dermat (PatriLLSO) 4000 mg/kg ^[2] Irrelation (npt LCSO: 3400 pom/kg ^[2] TOXICITY IRRITATION Irrelation (npt LCSO: 586000 mg/m34h ^[2] Not Available		TOXICITY	IRRITATION		
Internation (and Loss 3400 pm/sig ²² Crall (rat) LD50-8000 mg/sig ²² TOXICITY		Dermal (Rat)LC50: 11 mg/l ^[2]	Not Available		
Inhalation (rat) LC50: 3400 ppn/44 ^[2] Oral (rat) LD50: 5000 mg/kg ^[2] TOXICITY Inhalation (rat) LC50: 553000 mg/m2 ^[4] Inhalation (rat) LC50: 54.684 mg/h15 min ^[1] Inhala		Dermal (Rat)LD50: 4000 mg/kg ^[2]			
butane propane prop	nyurotreateu	Inhalation (rat) LC50: 3400 ppm/4h ^[2]			
Initialization (rai) LCSD: 659000 mg/m34h ^[2] Not Available		Oral (rat) LD50: 8000 mg/kg ^[2]			
propane TOXICITY IRRITATION Inhalation (rat) LC50: 84.884 mg/15 min ⁽¹⁾ Not Available Legend: 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from PECCS - Register of Toxic Effect of Carterial Substances of the Instances of Page 18 per 19 p	hutana	TOXICITY	IRRITATION		
Inhalation (rat) LC50: 84.684 mg115 min ^[1] **Legend:** 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.** Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances **Ashtmal-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 oned of persistent ashtmal-like symptoms within minutes to hours of a documented exposure to the irritant. Other criterials for diagnosis of RADS include the expension 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 diseases in a non-atopic individual, with sudden oned or persistent ashtmal-like symptoms within minutes to hours of a documented exposure to the irritant. Other criterials for diagnosis of RADS include the events lead into puttern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of international, new reversible altitude of international near events as a consideration of the material may produce conjunctivities. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivities. **NorT classifiation as to its carcinogenicity to inturnate and acute internations. The material may produce conjunctivities.** **NorT classifiation as to its carcinogenicity to inturnate provides a carcinogenicity in the internation of the carbon chain length. With little absorption above C30. With respect to the carbon chain lengths likely to be present in minoral oil. In-partifici	butane	Inhalation (rat) LC50: 658000 mg/m3/4h ^[2]	Not Available		
Legend: 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances Ashmal-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 inflating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-abrigic individual, with such stem-like leymonism within intuities to house of a documented exposure to the inflant. Other criteria for diagnosis of RADS include a reversible airlow pattern on tung function tests, moderate to severe bronchiel hyperescibit on methanchine chellenge testing, and the lack of minimal bymorphocytic inflammation, without esoinghills. The material may produce severe inflation to the eye causing pronounced inflammation. Repeated or prolonged exposure to inflants may produce conjunctivitis. The material may produce severe inflation to the eye causing pronounced inflammation. Repeated or prolonged exposure to inflants may produce conjunctivitis. The substance is disastiled by IARC as Group 3: NOT classified be a to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing. Reproductive effector in rats Animal studies indicate that normal, branched and cyclic paraffirs are absorbed from the gastrointestinal tract and that the absorption of n-paraffirs is investely proportional to the carbon chain length; with liftle absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffire may be absorbed to a greater evant than iso- or cycle-paraffirs. The major classes of hydrocarbons are well absorbed into the gastrointestinal tract in various species. In many cases, the hydrophobic hydrocarbons are ingested in asso		TOXICITY	IRRITATION		
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 a reversible airflux pattern of lung function tests, moderate to issue to the irritant. Other criteria for diagnosis of RADS include a reversible airflux pattern of lung function tests, moderate to issue that the production are such as the complex pattern of the pattern of the case of the control and produce severe bronchial hyperreactivity on methacholine challenge feeling, and the lack of minimal lymphocytic inflammation. The material may produce conjunctivitis. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce confunctions. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce to irritants may be absorbed to its every severe the material may irritants may be absorbe	propane	Inhalation (rat) LC50: 84.684 mg/l15 min ^[1]	Not Available		
titanium(IV) isopropoxide ittanium(IV) isopropoxide RADS include the absence of previous airways disease in a non-adopt cinducly the sudden onset of presistent astimate-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 hymphocytic inflammation, without eosinophila. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The substance is classified by IARC as Group 3: NOT classifiable as to its carrinogenicity to humans. Evidence of carrinogenicity may be inadequate or limited in animal testing. Reproductive effector in rats Animal studies indicate that normal, branched and cyclic paraffirs are absorbed from the gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length, with little absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffins may be absorbed to a greater extent than iso- or cyclo-paraffins. The major classes of hydrocarbons are well absorbed into the gastrointestinal tract in various species. In many cases, the hydrophobic hydrocarbons are ingested in association with fats in the diet. No significant acute toxicological data identified in literature search. For perfoleum: This product contains between, which can cause acute myeloid leukaemia, and n-hexane, which can be metabolized to compounds which are toxic to the nervous system. This product contains bulence and animal studies suggest high concentrations of toluene lead to hearing loss. This product contains toluene, and animal studies suggest high concentrations of toluene lead to hearing loss. This product contains the present. This product contains toluene, and animal studies suggest high concen	Legend:			from manufacturer's SDS. Unless otherwise specified	
titanium(IV) isopropoxide ittanium(IV) isopropoxide RADS include the absence of previous airways disease in a non-adopt cinducly the sudden onset of presistent astimate-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 hymphocytic inflammation, without eosinophila. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The substance is classified by IARC as Group 3: NOT classifiable as to its carrinogenicity to humans. Evidence of carrinogenicity may be inadequate or limited in animal testing. Reproductive effector in rats Animal studies indicate that normal, branched and cyclic paraffirs are absorbed from the gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length, with little absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffins may be absorbed to a greater extent than iso- or cyclo-paraffins. The major classes of hydrocarbons are well absorbed into the gastrointestinal tract in various species. In many cases, the hydrophobic hydrocarbons are ingested in association with fats in the diet. No significant acute toxicological data identified in literature search. For perfoleum: This product contains between, which can cause acute myeloid leukaemia, and n-hexane, which can be metabolized to compounds which are toxic to the nervous system. This product contains bulence and animal studies suggest high concentrations of toluene lead to hearing loss. This product contains toluene, and animal studies suggest high concentrations of toluene lead to hearing loss. This product contains the present. This product contains toluene, and animal studies suggest high concen					
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Stoddard Solvent & naphtha petroleum, heavy, hydrotreated For petroleum: This product contains benzene, which can cause acute myeloid leukaemia, and n-hexane, which can be metabolized to compounds which are toxic to the nervous system. This product contains toluene, and animal studies suggest high concentrations of toluene lead to hearing loss. This product contains ethyl benzene and naphthalene, from which animal testing shows evidence of tumour formation. Cancer-causing potential: Animal testing shows inhaling petroleum causes tumours of the liver and kidney; these are however not considered to be relevant in humans. The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Acute Toxicity Skin Irritation/Corrosion Respiratory or Skin sensitisation STOT - Single Exposure STOT - Repeated Exposure		inversely proportional to the carbon chain length, with little absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffins may be absorbed to a greater extent than iso- or cyclo-paraffins. The major classes of hydrocarbons are well absorbed into the gastrointestinal tract in various species. In many cases, the hydrophobic hydrocarbons are			
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xylene scaling and thickening of the skin. Acute Toxicity Carcinogenicity Skin Irritation/Corrosion Reproductivity Serious Eye Damage/Irritation STOT - Single Exposure STOT - Repeated Exposure STOT - Repeated Exposure	•	toxic to the nervous system. This product contains toluene, and animal studies contains ethyl benzene and naphthalene, from which animal testing shows evid Cancer-causing potential: Animal testing shows inhaling petroleum causes turn	For petroleum: This product contains benzene, which can cause acute myeloid leukaemia, and n-hexane, which can be metabolized to compounds which are toxic to the nervous system. This product contains toluene, and animal studies suggest high concentrations of toluene lead to hearing loss. This product contains ethyl benzene and naphthalene, from which animal testing shows evidence of tumour formation. Cancer-causing potential: Animal testing shows inhaling petroleum causes tumours of the liver and kidney; these are however not considered to be relevant		
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Serious Eye Damage/Irritation Respiratory or Skin sensitisation STOT - Single Exposure STOT - Repeated Exposure	Acute Toxicity	0	Carcinogenicity	~	
Respiratory or Skin sensitisation STOT - Repeated Exposure	Skin Irritation/Corrosion		Reproductivity	0	
sensitisation S101 - Repeated Exposure		○ STOT - S	Single Exposure	0	
Mutagenicity Aspiration Hazard			eated Exposure	*	
	Mutagenicity	○ As	piration Hazard	0	

O – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Guardsman Fabric Protector	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE SOUR
	Not Available	Not Available	Not Available	Not Not Available Availat
Stoddard Solvent	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE SOUR
	Not Available	Not Available	Not Available	Not Not Available Availal
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE SOUR
titanium(IV) isopropoxide	LC50	96	Fish	9640mg/L 2
	EC50	48	Crustacea	590mg/L 2

	EC50	72	Algae or other aquatic plants	400mg/L	2
	NOEC	72	Algae or other aquatic plants	50mg/L	2
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	2.6mg/L	2
xylene	EC50	48	Crustacea	>3.4mg/L	2
	EC50	72	Algae or other aquatic plants	4.6mg/L	2
	NOEC	73	Algae or other aquatic plants	0.44mg/L	2
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
naphtha petroleum, heavy, hydrotreated	Not Available	Not Available	Not Available	Not Available	Not Available
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
butane	Not Available	Not Available	Not Available	Not Available	Not Available
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
propane	Not Available	Not Available	Not Available	Not Available	Not Available
Legend:			Registered Substances - Ecotoxicological Information - cotox database - Aquatic Toxicity Data 5. ECETOC Aqu	,	

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
titanium(IV) isopropoxide	LOW	LOW
xylene	HIGH (Half-life = 360 days)	LOW (Half-life = 1.83 days)
butane	LOW	LOW
propane	LOW	LOW

Bioaccumulative potential

·	
Ingredient	Bioaccumulation
titanium(IV) isopropoxide	LOW (LogKOW = 0.2764)
xylene	MEDIUM (BCF = 740)
butane	LOW (LogKOW = 2.89)
propane	LOW (LogKOW = 2.36)

Mobility in soil

Ingredient	Mobility
titanium(IV) isopropoxide	HIGH (KOC = 1.06)
butane	LOW (KOC = 43.79)
propane	LOW (KOC = 23.74)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Recycle wherever possible or consult manufacturer for recycling options.
Consult State Land Waste Management Authority for disposal.

Consult State Land Waste Management Authority for disposal.

Product / Packaging disposal

Piccharge contents of damaged agreed care at an approved

▶ Discharge contents of damaged aerosol cans at an approved site.

► Allow small quantities to evaporate.

► DO NOT incinerate or puncture aerosol cans.

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

Disposal Requirements

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of.

Packages which hazardous content have been appropriately treated and removed may be recycled.

The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous.

SECTION 14 TRANSPORT INFORMATION

Labels Required



Marine Pollutant
HAZCHEM

NO 2YE

Land transport (UN)

• , ,	
UN number	1950
UN proper shipping name	AEROSOLS (contains naphtha petroleum, heavy, hydrotreated)
Transport hazard class(es)	Class 2.1 Subrisk Not Applicable
Packing group	Not Applicable
Environmental hazard	Not Applicable
Special precautions for user	Special provisions 63; 190; 277; 327; 344; 381 Limited quantity 1000ml

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee)

UN number	1950
UN proper shipping name	AEROSOLS (contains naphtha petroleum, heavy, hydrotreated)
Transport hazard class(es)	IMDG Class 2.1 IMDG Subrisk Not Applicable
Packing group	Not Applicable
Environmental hazard	Not Applicable
Special precautions for user	EMS Number F-D, S-U Special provisions 63 190 277 327 344 381 959 Limited Quantities 1000ml

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

Not Applicable

SECTION 15 REGULATORY INFORMATION

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

This substance is to be managed using the conditions specified in an applicable Group Standard

HSR Number	Group Standard
HSR002515	Aerosols(Flammable) Group Standard 2006

\parallel STODDARD SOLVENT(8052-41-3.*) IS FOUND ON THE FOLLOWING REGULATORY LISTS

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

New Zealand Inventory of Chemicals (NZIoC) New Zealand Workplace Exposure Standards (WES)

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

TITANIUM(IV) ISOPROPOXIDE(546-68-9*) IS FOUND ON THE FOLLOWING REGULATORY LISTS

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Inventory of Chemicals (NZIoC)

XYLENE(1330-20-7*) IS FOUND ON THE FOLLOWING REGULATORY LISTS

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

New Zealand Inventory of Chemicals (NZIoC) New Zealand Workplace Exposure Standards (WES)

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

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

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International Agency for Research on Cancer (IARC) - Agents Classified by the IARC

Monographs

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

BUTANE(106-97-8.*) IS FOUND ON THE FOLLOWING REGULATORY LISTS

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of

New Zealand Workplace Exposure Standards (WES)

New Zealand Inventory of Chemicals (NZIoC)

PROPANE(74-98-6*) IS FOUND ON THE FOLLOWING REGULATORY LISTS

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Workplace Exposure Standards (WES)

New Zealand Inventory of Chemicals (NZIoC)

Hazardous Substance Location

Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Quantity beyond which controls apply for closed containers	Quantity beyond which controls apply when use occurring in open containers
2.1.2A	3 000 L (aggregate water capacity)	3 000 L (aggregate water capacity)

Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Class of substance	Quantities
2.1.2A	3 000 L aggregate water capacity

Refer Group Standards for further information

Tracking Requirements

Not Applicable

National Inventory Status

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (butane; xylene; propane; titanium(IV) isopropoxide; Stoddard Solvent; naphtha petroleum, heavy, hydrotreated)
China - IECSC	Υ
Europe - EINEC / ELINCS / NLP	Υ
Japan - ENCS	N (naphtha petroleum, heavy, hydrotreated)
Korea - KECI	Υ
New Zealand - NZIoC	Υ
Philippines - PICCS	Υ
USA - TSCA	Υ
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

-		
	Revision Date	18/12/2017
	Initial Date	18/12/2017

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

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

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Guardsman Fabric Protector

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