

# GUARDSMAN WEATHER DEFENCE WOOD PROTECTOR 284 AEROSOL

Damar Industries Pty Ltd

Chemwatch Hazard Alert Code: 4

Version No: 2.11  
Safety Data Sheet according to WHS and ADG requirements

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

### Product Identifier

Product name	GUARDSMAN WEATHER DEFENCE WOOD PROTECTOR 284 AEROSOL
Synonyms	CQA1202
Proper shipping name	AEROSOLS
Other means of identification	Not Available

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

Relevant identified uses	Furniture maintenance and repair
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### Details of the supplier of the safety data sheet

Registered company name	Damar Industries Pty Ltd
Address	25 Hargraves Place, Wetherhill Park NSW 2164 Australia
Telephone	+61 2 9756 4511
Fax	+61 2 9756 0985
Website	www.damarindustries.co.nz
Email	cdcinfo@damarindustries.com.au

### Emergency telephone number

Association / Organisation	+61 2 9756 0985
Emergency telephone numbers	CHEMCALL 1800 127 406
Other emergency telephone numbers	1800127406

## SECTION 2 HAZARDS IDENTIFICATION

### Classification of the substance or mixture

Poisons Schedule	Not Applicable
Classification [1]	Aerosols Category 1, Carcinogenicity Category 2, Reproductive Toxicity Category 2, Specific target organ toxicity - single exposure Category 3 (narcotic effects)
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

### Label elements

Hazard pictogram(s)	
SIGNAL WORD	<b>DANGER</b>

### Hazard statement(s)

H222	Extremely flammable aerosol.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
H336	May cause drowsiness or dizziness.
AUH044	Risk of explosion if heated under confinement.

### Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Pressurized container: Do not pierce or burn, even after use.

### Precautionary statement(s) Response

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<b>P308+P313</b>	IF exposed or concerned: Get medical advice/attention.
<b>P312</b>	Call a POISON CENTER or doctor/physician if you feel unwell.
<b>P304+P340</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

### Precautionary statement(s) Storage

<b>P405</b>	Store locked up.
<b>P410+P412</b>	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
<b>P403+P233</b>	Store in a well-ventilated place. Keep container tightly closed.

### Precautionary statement(s) Disposal

<b>P501</b>	Dispose of contents/container in accordance with local regulations.
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## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

### Substances

See section below for composition of Mixtures

### Mixtures

CAS No	%[weight]	Name
106-97-8.*	1-10	<u>butane</u>
74-98-6*	1-10	<u>propane</u>
64742-48-9.*	60-80	<u>naphtha petroleum, heavy, hydrotreated</u>
1185-55-3*	<1	<u>methytrimethoxysilane</u>
2943-75-1*	<1	<u>octyltriethoxysilane</u>
5593-70-4*	<1	<u>titanium(IV) butoxide</u>
556-67-2*	<1	<u>octamethylcyclotetrasiloxane</u>
1112-39-6*	<1	<u>dimethoxydimethylsilane</u>
Not Available	1-10	Ingredient not contributing to HSNO Classification

## SECTION 4 FIRST AID MEASURES

### Description of first aid measures

<b>Eye Contact</b>	<p>If aerosols come in contact with the eyes:</p> <ul style="list-style-type: none"> <li>▶ Immediately hold the eyelids apart and flush the eye with fresh running water.</li> <li>▶ 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.</li> <li>▶ Seek medical attention without delay; if pain persists or recurs seek medical attention.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> <li>▶ Generally not applicable.</li> </ul>
<b>Skin Contact</b>	<p>If solids or aerosol mists are deposited upon the skin:</p> <ul style="list-style-type: none"> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Remove any adhering solids with industrial skin cleansing cream.</li> <li>▶ <b>DO NOT use solvents.</b></li> <li>▶ Seek medical attention in the event of irritation.</li> <li>▶ Generally not applicable.</li> </ul>
<b>Inhalation</b>	<p>If aerosols, fumes or combustion products are inhaled:</p> <ul style="list-style-type: none"> <li>▶ Remove to fresh air.</li> <li>▶ Lay patient down. Keep warm and rested.</li> <li>▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▶ 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.</li> <li>▶ Transport to hospital, or doctor.</li> <li>▶ Generally not applicable.</li> </ul>
<b>Ingestion</b>	<p>Not considered a normal route of entry.</p> <ul style="list-style-type: none"> <li>▶ Generally not applicable.</li> </ul>

### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5 FIREFIGHTING MEASURES

### Extinguishing media

#### SMALL FIRE:

- ▶ Water spray, dry chemical or CO2

#### LARGE FIRE:

- ▶ Water spray or fog.

### Special hazards arising from the substrate or mixture

<b>Fire Incompatibility</b>	▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
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### Advice for firefighters

<b>Fire Fighting</b>	<ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ May be violently or explosively reactive.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> </ul> <p>Slight hazard when exposed to heat, flame and oxidisers.</p>
<b>Fire/Explosion Hazard</b>	<ul style="list-style-type: none"> <li>▶ Liquid and vapour are highly flammable.</li> <li>▶ Severe fire hazard when exposed to heat or flame.</li> <li>▶ Vapour forms an explosive mixture with air.</li> <li>▶ Severe explosion hazard, in the form of vapour, when exposed to flame or spark.</li> </ul> <p>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.</p>
<b>HAZCHEM</b>	Not Applicable

### SECTION 6 ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

See section 8

#### Environmental precautions

See section 12

#### Methods and material for containment and cleaning up

<b>Minor Spills</b>	<ul style="list-style-type: none"> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours and contact with skin and eyes.</li> <li>▶ Wear protective clothing, impervious gloves and safety glasses.</li> <li>▶ Shut off all possible sources of ignition and increase ventilation.</li> </ul>
<b>Major Spills</b>	<ul style="list-style-type: none"> <li>▶ Clear area of all unprotected personnel and move upwind.</li> <li>▶ Alert Emergency Authority and advise them of the location and nature of hazard.</li> <li>▶ May be violently or explosively reactive.</li> <li>▶ Wear full body clothing with breathing apparatus.</li> <li>▶ Remove leaking cylinders to a safe place.</li> <li>▶ Fit vent pipes. Release pressure under safe, controlled conditions</li> <li>▶ Burn issuing gas at vent pipes.</li> <li>▶ <b>DO NOT exert excessive pressure on valve; DO NOT attempt to operate damaged valve.</b></li> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ May be violently or explosively reactive.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Clean up all spills immediately.</li> <li>▶ Wear protective clothing, safety glasses, dust mask, gloves.</li> <li>▶ Secure load if safe to do so. Bundle/collect recoverable product.</li> </ul>

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

### SECTION 7 HANDLING AND STORAGE

#### Precautions for safe handling

<b>Safe handling</b>	<ul style="list-style-type: none"> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Prevent concentration in hollows and sumps.</li> </ul>
<b>Other information</b>	<ul style="list-style-type: none"> <li>▶ Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can</li> <li>▶ Store in original containers in approved flammable liquid storage area.</li> <li>▶ <b>DO NOT store in pits, depressions, basements or areas where vapours may be trapped.</b></li> <li>▶ No smoking, naked lights, heat or ignition sources.</li> <li>▶ Keep containers securely sealed.</li> <li>▶ Store away from incompatible materials.</li> </ul>

#### Conditions for safe storage, including any incompatibilities

<b>Suitable container</b>	<p>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 practically possible, reuse the original packaging or something providing a similar level of protection to both the article and the handler.</p> <ul style="list-style-type: none"> <li>▶ Aerosol dispenser.</li> <li>▶ Check that containers are clearly labelled.</li> </ul>
<b>Storage incompatibility</b>	<ul style="list-style-type: none"> <li>▶ 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</li> <li>▶ Avoid reaction with oxidising agents</li> </ul>

### SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Control parameters

##### OCCUPATIONAL EXPOSURE LIMITS (OEL)

##### INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
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Australia Exposure Standards	butane	Butane	800 ppm / 1900 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	naphtha petroleum, heavy, hydrotreated	Oil mist, refined mineral	5 mg/m3	Not Available	Not Available	Not Available

### EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
butane	Butane	Not Available	Not Available	Not Available
propane	Propane	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
methyltrimethoxysilane	Methyltrimethoxysilane	38 mg/m3	410 mg/m3	2,500 mg/m3
titanium(IV) butoxide	Tetrabutyl titanate; (Butyl titanate)	0.67 ppm	7.4 ppm	44 ppm
octamethylcyclotetrasiloxane	Octamethylcyclotetrasiloxane	30 ppm	68 ppm	130 ppm
dimethoxydimethylsilane	Dimethyldimethoxysilane	14 mg/m3	150 mg/m3	920 mg/m3

Ingredient	Original IDLH	Revised IDLH
butane	Not Available	1,600 ppm
propane	2,100 ppm	Not Available
naphtha petroleum, heavy, hydrotreated	2,500 mg/m3	Not Available
methyltrimethoxysilane	Not Available	Not Available
octyltriethoxysilane	Not Available	Not Available
titanium(IV) butoxide	Not Available	Not Available
octamethylcyclotetrasiloxane	Not Available	Not Available
dimethoxydimethylsilane	Not Available	Not Available
Ingredient not contributing to HSNO Classification	Not Available	Not Available

### Exposure controls

<b>Appropriate engineering controls</b>	<p>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.</p> <p>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:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>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.</p>
<b>Personal protection</b>	
<b>Eye and face protection</b>	<ul style="list-style-type: none"> <li>▶ Close fitting gas tight goggles</li> <li><b>DO NOT wear contact lenses.</b></li> <li>▶ 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 readily available.</li> </ul> <p>No special equipment for minor exposure i.e. when handling small quantities.</p> <p><b>OTHERWISE:</b> For potentially moderate or heavy exposures:</p> <ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ <b>NOTE:</b> Contact lenses pose a special hazard; soft lenses may absorb irritants and <b>ALL</b> lenses concentrate them.</li> </ul> <p>No special equipment required due to the physical form of the product.</p> <ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ Chemical goggles.</li> <li>▶ 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.</li> </ul>
<b>Skin protection</b>	See Hand protection below
<b>Hands/feet protection</b>	<p>Wear general protective gloves, eg. light weight rubber gloves.</p> <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.</li> <li>▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.</li> <li>▶ No special equipment needed when handling small quantities.</li> <li>▶ <b>OTHERWISE:</b></li> <li>▶ For potentially moderate exposures:</li> <li>▶ Wear general protective gloves, eg. light weight rubber gloves.</li> <li>▶ For potentially heavy exposures:</li> <li>▶ Wear chemical protective gloves, eg. PVC. and safety footwear.</li> </ul>
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	<ul style="list-style-type: none"> <li>▶ 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.</li> <li>▶ Avoid dangerous levels of charge by ensuring a low resistivity of the surface material worn outermost.</li> </ul> <p>BRETHERRICK: Handbook of Reactive Chemical Hazards.</p>

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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.

### 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

<b>Appearance</b>	Aerosol		
<b>Physical state</b>	article	<b>Relative density (Water = 1)</b>	0.747
<b>Odour</b>	Not Available	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	431
<b>pH (as supplied)</b>	Not Applicable	<b>Decomposition temperature</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (cSt)</b>	Not Available
<b>Initial boiling point and boiling range (°C)</b>	Not Available	<b>Molecular weight (g/mol)</b>	Not Available
<b>Flash point (°C)</b>	-81	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	Not Available	<b>Explosive properties</b>	Not Available
<b>Flammability</b>	HIGHLY FLAMMABLE.	<b>Oxidising properties</b>	Not Available
<b>Upper Explosive Limit (%)</b>	10	<b>Surface Tension (dyn/cm or mN/m)</b>	Not Available
<b>Lower Explosive Limit (%)</b>	1.5	<b>Volatile Component (%vol)</b>	Not Available
<b>Vapour pressure (kPa)</b>	Not Available	<b>Gas group</b>	Not Available
<b>Solubility in water (g/L)</b>	Immiscible	<b>pH as a solution (1%)</b>	Not Applicable
<b>Vapour density (Air = 1)</b>	Not Available	<b>VOC g/L</b>	Not Available

## SECTION 10 STABILITY AND REACTIVITY

<b>Reactivity</b>	See section 7
<b>Chemical stability</b>	<ul style="list-style-type: none"> <li>▶ Elevated temperatures.</li> <li>▶ Presence of open flame.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul>
<b>Possibility of hazardous reactions</b>	See section 7
<b>Conditions to avoid</b>	See section 7
<b>Incompatible materials</b>	See section 7
<b>Hazardous decomposition products</b>	See section 5

## SECTION 11 TOXICOLOGICAL INFORMATION

### Information on toxicological effects

<b>Inhaled</b>	<p>The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. The vapour is discomforting</p> <p><b>WARNING: Intentional misuse by concentrating/inhaling contents may be lethal.</b></p>
<b>Ingestion</b>	<p>Not normally a hazard due to physical form of product. Considered an unlikely route of entry in commercial/industrial environments</p>
<b>Skin Contact</b>	<p>Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.</p> <p>There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.</p> <p>Spray mist may produce discomfort</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>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.</p>

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<b>Eye</b>	Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn). Not considered to be a risk because of the extreme volatility of the gas.	
<b>Chronic</b>	There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility. Main route of exposure to the gas in the workplace is by inhalation.	
<b>GUARDSMAN WEATHER DEFENCE WOOD PROTECTOR 284 AEROSOL</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available
<b>butane</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Inhalation (rat) LC50: 658000 mg/m <sup>3</sup> /4h <sup>[2]</sup>	Not Available
<b>propane</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Inhalation (rat) LC50: 84.684 mg/15 min <sup>[1]</sup>	Not Available
<b>naphtha petroleum, heavy, hydrotreated</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (Rat)LC50: >11 mg/l <sup>[2]</sup>	Not Available
	Dermal (Rat)LD50: >4000 mg/kg <sup>[2]</sup>	
	Inhalation (rat) LC50: 3400 ppm/4h <sup>[2]</sup>	
	Oral (rat) LD50: >8000 mg/kg <sup>[2]</sup>	
<b>methyltrimethoxysilane</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Oral (rat) LD50: 12500 mg/kg <sup>[2]</sup>	Eye (rabbit): 500 mg/24h - mild Skin (rabbit): 500 mg open - mild
<b>octyltriethoxysilane</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available
<b>titanium(IV) butoxide</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Intravenous (Mouse) LD50: 180 mg/kg <sup>[2]</sup>	Not Available
	Oral (rat) LD50: 3122 mg/kg <sup>[2]</sup>	
<b>octamethylcyclotetrasiloxane</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: >2.5 ml/kg <sup>[2]</sup>	Eye (rabbit): 500 mg/24h - mild
	Dermal (rabbit) LD50: 794 uL/kg <sup>[2]</sup>	Skin (rabbit): 500 mg/24h - mild
	dermal (rat) LD50: 1770 mg/kg <sup>[2]</sup>	
	Inhalation (rat) LC50: 2975 ppm/4h <sup>[2]</sup>	
	Inhalation (rat) LC50: 36000 mg/m <sup>3</sup> /4h <sup>[2]</sup>	
	Oral (rat) LD50: >4800 mg/kg <sup>[2]</sup>	
	Oral (rat) LD50: 1540 mg/kg <sup>[2]</sup>	
<b>dimethoxydimethylsilane</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Oral (rat) LD50: 3602 mg/kg <sup>[2]</sup>	Not Available
<b>Legend:</b>	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	

<b>GUARDSMAN WEATHER DEFENCE WOOD PROTECTOR 284 AEROSOL</b>	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions.
<b>naphtha petroleum, heavy, hydrotreated</b>	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.
<b>octyltriethoxysilane</b>	Low molecular weight alkoxy silane can cause irreversible lung damage when inhaled at low dose. It is not an obvious skin irritant. However, studies suggest with repeated occupational exposure, methoxysilane may cause damage to the eye and skin as well as cancer.
<b>titanium(IV) butoxide</b>	The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.
<b>octamethylcyclotetrasiloxane</b>	Does not cause skin sensitization Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES) Result: negative Remarks: Based on test data Test Type: Mutagenicity (in vitro mammalian cytogenetic test) Result: negative Remarks: Based on test data Test Type: Chromosome aberration test in vitro Result: negative Remarks: Based on test data Test Type: In vitro sister chromatid exchange assay in mammalian cells Result: negative Remarks: Based on

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	<p>test data Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro) Result: negative Remarks: Based on test data Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Rat Application Route: inhalation (vapor) Result: negative Remarks: Based on test data Test Type: Rodent dominant lethal test (germ cell) (in vivo) Species: Rat Application Route: Ingestion Result: negative Remarks: Based on test data Germ cell mutagenicity - Assessment : Animal testing did not show any mutagenic effects Effects on fertility : Test Type: Two-generation reproduction toxicity study Species: Rat, male and female Application Route: inhalation (vapor) Symptoms: Effects on fertility. Remarks: Based on test data Effects on fetal development : Test Type: Prenatal development toxicity study (teratogenicity) Species: Rabbit Application Route: inhalation (vapor) Symptoms: No effects on fetal development. Remarks: Based on test data Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, based on animal experiments. STOT-single exposure May cause damage to organs (Eyes, Central nervous system Routes of exposure: Ingestion Assessment: No significant health effects observed in animals at concentrations of 100 mg/kg bw or less. Routes of exposure: inhalation (vapor) Assessment: No significant health effects observed in animals at concentrations of 1 mg/l/6h/d or less. Routes of exposure: Skin contact Assessment: No significant health effects observed in animals at concentrations of 200 mg/kg bw or less. Results from a 2 year repeated vapor inhalation exposure study to rats of octamethylcyclotetrasiloxane (D4) indicate effects (benign uterine adenomas) in the uterus of female animals. This finding occurred at the highest exposure dose (700 ppm) only. Studies to date have not demonstrated if these effects occur through pathways that are relevant to humans. Repeated exposure in rats to D4 resulted in protoporphyrin accumulation in the liver.</p>
<b>propane &amp; octyltriethoxysilane &amp; titanium(IV) butoxide</b>	No significant acute toxicological data identified in literature search.
<b>methyltrimethoxysilane &amp; titanium(IV) butoxide &amp; octamethylcyclotetrasiloxane</b>	<p>The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p> <p>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.</p>
<b>octyltriethoxysilane &amp; titanium(IV) butoxide &amp; dimethoxydimethylsilane</b>	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 airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia.

<b>Acute Toxicity</b>	☉	<b>Carcinogenicity</b>	✓
<b>Skin Irritation/Corrosion</b>	☉	<b>Reproductivity</b>	✓
<b>Serious Eye Damage/Irritation</b>	☉	<b>STOT - Single Exposure</b>	✓
<b>Respiratory or Skin sensitisation</b>	☉	<b>STOT - Repeated Exposure</b>	☉
<b>Mutagenicity</b>	☉	<b>Aspiration Hazard</b>	☉

**Legend:** ✗ – Data available but does not fill the criteria for classification  
✓ – Data available to make classification  
☉ – Data Not Available to make classification

## SECTION 12 ECOLOGICAL INFORMATION

### Toxicity

GUARDSMAN WEATHER DEFENCE WOOD PROTECTOR 284 AEROSOL	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available
butane	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available
propane	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available
naphtha petroleum, heavy, hydrotreated	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available
methyltrimethoxysilane	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>110mg/L	2
	EC50	48	Crustacea	>122mg/L	2
	EC50	72	Algae or other aquatic plants	>3.6mg/L	2
octyltriethoxysilane	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>0.055mg/L	2
	EC50	48	Crustacea	>0.049mg/L	2
	EC50	72	Algae or other aquatic plants	>1.2mg/L	2
titanium(IV) butoxide	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	1-740mg/L	2
	EC50	48	Crustacea	590mg/L	2
	NOEC	72	Algae or other aquatic plants	>=3.6mg/L	2

Continued...

## GUARDSMAN WEATHER DEFENCE WOOD PROTECTOR 284 AEROSOL

	EC50	96	Algae or other aquatic plants	225mg/L	2
	NOEC	72	Algae or other aquatic plants	201mg/L	2
octamethylcyclotetrasiloxane	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>0.0063mg/L	2
	EC50	48	Crustacea	>0.015mg/L	2
	EC50	96	Algae or other aquatic plants	>0.022mg/L	2
	BCF	120	Fish	0.00053mg/L	4
	NOEC	336	Fish	<=0.0044mg/L	2
dimethoxydimethylsilane	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>126mg/L	2
	EC50	48	Crustacea	>117mg/L	2
	EC50	72	Algae or other aquatic plants	>118mg/L	2
	NOEC	48	Crustacea	>=117mg/L	2

**Legend:** Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

**DO NOT** discharge into sewer or waterways.

## Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
butane	LOW	LOW
propane	LOW	LOW
methyltrimethoxysilane	HIGH	HIGH
octyltriethoxysilane	HIGH	HIGH
titanium(IV) butoxide	LOW	LOW
octamethylcyclotetrasiloxane	HIGH	HIGH
dimethoxydimethylsilane	HIGH	HIGH

## Bioaccumulative potential

Ingredient	Bioaccumulation
butane	LOW (LogKOW = 2.89)
propane	LOW (LogKOW = 2.36)
methyltrimethoxysilane	LOW (LogKOW = -0.6716)
octyltriethoxysilane	MEDIUM (LogKOW = 4.2394)
titanium(IV) butoxide	LOW (LogKOW = 0.841)
octamethylcyclotetrasiloxane	HIGH (BCF = 12400)
dimethoxydimethylsilane	LOW (LogKOW = 0.585)

## Mobility in soil

Ingredient	Mobility
butane	LOW (KOC = 43.79)
propane	LOW (KOC = 23.74)
methyltrimethoxysilane	LOW (KOC = 381.3)
octyltriethoxysilane	LOW (KOC = 187100)
titanium(IV) butoxide	MEDIUM (KOC = 2.443)
octamethylcyclotetrasiloxane	LOW (KOC = 17960)
dimethoxydimethylsilane	LOW (KOC = 192)

## SECTION 13 DISPOSAL CONSIDERATIONS


## Waste treatment methods

Product / Packaging disposal	<ul style="list-style-type: none"> <li>• Recycle wherever possible or consult manufacturer for recycling options.</li> <li>• Consult State Land Waste Management Authority for disposal.</li> <li>▶ Consult State Land Waste Management Authority for disposal.</li> <li>▶ Discharge contents of damaged aerosol cans at an approved site.</li> <li>▶ Allow small quantities to evaporate.</li> <li>▶ <b>DO NOT</b> incinerate or puncture aerosol cans.</li> </ul>
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## SECTION 14 TRANSPORT INFORMATION

## Labels Required

	
Marine Pollutant	NO
HAZCHEM	Not Applicable

## Land transport (ADG)

UN number	1950
UN proper shipping name	AEROSOLS
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
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

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

Australia Exposure Standards  
Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Inventory of Chemical Substances (AICS)

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

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

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

Australia Exposure Standards  
Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5  
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

## METHYLTRIMETHOXYSILANE(1185-55-3\*) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

## OCTYLTRIETHOXYSILANE(2943-75-1\*) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

## GUARDSMAN WEATHER DEFENCE WOOD PROTECTOR 284 AEROSOL

### TITANIUM(IV) BUTOXIDE(5593-70-4\*) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

### OCTAMETHYLCYCLOTETRASILOXANE(556-67-2\*) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Inventory of Chemical Substances (AICS)

### DIMETHOXYDIMETHYLSILANE(1112-39-6\*) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

### National Inventory Status

National Inventory	Status
Australia - AICS	Y
Canada - DSL	N (dimethoxydimethylsilane)
Canada - NDSL	N (titanium(IV) butoxide; propane; butane; octamethylcyclotetrasiloxane; naphtha petroleum, heavy, hydrotreated; methyltrimethoxysilane; octyltriethoxysilane)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	N (butane; naphtha petroleum, heavy, hydrotreated)
Korea - KECI	Y
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

<b>Revision Date</b>	15/03/2018
<b>Initial Date</b>	15/03/2018

#### 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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