



CALMARC CHEMICALS

MANUFACTURING INDUSTRIAL CHEMISTS

16 GOONGARRIE ST, BAYSWATER WA 6053
TELEPHONE: Bus. (08) 93782022, Mobile: 0418 956 860 A/H (08) 9381 5052
Facsimile: (08) 9377 2575 A.C.N 009 026 386. ABN 18 340 289 669

THIS PRODUCT IS A HAZARDOUS SUBSTANCE AS DEFINED BY SAFE WORK AUSTRALIA

SECTION 1 – CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name:	DAMP-PEL C
Manufacture Code:	DMPL
Emergency Telephone No:	(08) 9378 2022 0408 940 669 (08) 9381 5052 13 11 26(all hours)
Email:	accounts@calmarc.com.au
Creation Date:	29 July 2019
SDS Responsibility:	Calmarc Chemical's Technical Sales (08) 9378 2022 0408 940 669
Other Information:	This SDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification of further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. Our responsibilities for products sold are subject to our standard terms and conditions. A copy of our terms and conditions and technical information pamphlets are available upon request. <u>DISCLAIMER</u> This information is based on the present level of knowledge about safety requirements not specific properties. The listed data is therefore subject to change and revision without notice and cannot be guaranteed. No warranty expressed or implied is made as to accuracy, reliability or completeness of the detail in this document.

SECTION 2 – INFORMATION ON INGREDIENTS

Globally Harmonised System	
Hazard Classification	Hazardous according to the criteria of the Globally Harmonised System of classification and labelling of Chemicals (GHS).
Signal Word	WARNING
ACUTE HEALTH EFFECTS	
Swallowed	Ingestion of this product may irritate the gastric tract causing nausea and vomiting.
Eye	Causes serious eye irritation. On eye contact this product will cause tearing, stinging, blurred vision, and redness.
Skin	Causes skin irritation. Skin contact will cause redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.



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Inhalation Inhalation of product vapours may cause irritation of the nose, throat and respiratory system.

Chronic None known at this time.

SPECIAL HEALTH EFFECTS

Environmental Do not allow products to enter drinking water, rivers and streams as it is toxic to aquatic life.

GHS Classification	Pictogram	Hazard Statement
Skin Corrosion/Irritation Category 2		H315 – Causes skin irritation.
Eye Damage/Irritation Category 2A		H319 – Causes serious eye irritation.
Toxic to Reproduction Category 2		H361 – Suspected of damaging fertility or the unborn child.

GENERAL	
P101 P102 P103	If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use.
PREVENTATIVE	
P201 P202 P264 P271 P273 P280	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash skin thoroughly after handling. Use only outdoors in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.
RESPONSE	
P302 + P352 P305 + P351 + P338 P308 + P313 P332 + P313 P337 + P313 P362 + P364	IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/ attention. If eye irritation persist: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
STORAGE	
P405	Store locked up.
DISPOSAL	
P501	Dispose of contents/container to an approved waste disposal plant.



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SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS	CAS No.	CONCENTRATION
Octyl(triethoxy)silane	2943-75-1	10-<20 % m/m
Siloxanes and silicones, dimethyl, hydroxy terminated	70131-67-8	1-<10% m/m
Dodecan-1-ol, ethoxylated	9002-92-0	0-<2.5% m/m
Ingredients determined not to be hazardous, including water		Balance

SECTION 4 – FIRST AID MEASURES

Swallowed	Do not induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention.
Eye	Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably on ophthalmologist.
Skin	Remove all contaminated clothing immediately. Wash affected area thoroughly with soap and water. Wash contaminated clothing before reuse or discard. Seek medical advice.
Inhalation	If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop and/or persist seek medical attention.
First Aid Facilities	Eyewash, safety shower and normal washroom facilities.
Advice to Doctor	No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.
Other Information	For advice in an emergency, contact a Poisons Information Centre or a doctor at once. (131 126)

SECTION 5 – FIRE FIGHTING MEASURES

Ventilation	Use only in a well-ventilated area. Mechanical ventilation or forced draught over the work area is recommended. Avoid generating or inhaling mists or aerosols.
Flash Point	Not Flammable.
Suitable Extinguishing Media	Water spray, alcohol-resistant foam, carbon dioxide (CO ₂) and dry chemical.
Unsuitable Extinguishing Media	None known.
Hazardous Combustion Products	Carbon dioxide, nitrogen oxides (NO _x), oxides of phosphorus, silicon oxides.
Reactivity	Can react with strong oxidizing agents.



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Special Fire Fighting Procedures

Evacuate area. Use water to cool unopened containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguish water must be disposed in accordance with local regulations. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Use extinguishing measures appropriate to local circumstances and the surrounding environment.

Protection of Firefighters

In the event of fire, wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers. Fight fire from safe location. This product should be prevented from entering drains and watercourses.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spills and Disposal

Do not release the product to the aquatic environment above defined regulatory levels. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillage cannot be contained.

Cleaning Protection

Soak up with inert, non-combustible absorbent material onto spillage. As a water based product, if spilt on electrical equipment the product will cause a short-circuits. Use clean non-sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs, inform the local water and waste management authorities in accordance with local regulations.

SECTION 7 – HANDLING AND STORAGE

Precautions for safe handling

Do not get on skin or clothing. Avoid inhalation of vapour or mist. Do not swallow. Avoid contact with eyes. Take care to prevent spills, waste and minimize release to the environment. Handle in accordance with good industrial hygiene and safety practice. Use with only adequate ventilation.

Packages

The product is supplied in high density polypropylene bottles, jerry cans or cubes. Packaging group type II and III.

Storage

Keep containers securely sealed, clean protected against physical damage. Store in a cool place away from heat. Do not store with strong oxidizing agents. Keep away from children.



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SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

This substance is hazardous and should be used with legal exhaust ventilation system, drawing vapours away from workers' breathing zone. A flame-proof exhaust ventilation system is required. If the engineering controls are not sufficient to maintain concentrations of vapours/mists below the exposure standards, suitable respiratory protection must be worn. Refer to relevant regulations for further information concerning ventilation requirements.

PERSONAL PROTECTIVE EQUIPMENT

Skin/Body Protection

Use chemical resistant gloves classified under standard AS/NZS 2161.10: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: butyl rubber, neoprene, nitrile/butadiene rubber ('nitrile' or 'NBR'), ethyl vinyl alcohol laminate ('EVAL'), polyvinyl chloride ('PVC' or 'vinyl') and viton. Examples of acceptable glove barrier materials include: natural rubber ('latex'). Aviod gloves made of: Polyvinyl alcohol ('PVA'). When prolonged or frequently repeated contact with may occur, a glove with a protection class of 4 or higher (breakthrough time greater than 120 minutes according to AS/NZS 2161.10) is recommended. When only brief contact is expected, a glove with a protection class of 1 or higher (breakthrough time greater than 10 minutes according to AS/NZS 2161.10) is recommended. Final choice of appropriate gloves will vary according to individual circumstances i.e., methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations. Reference should be made to AS/NZS 2161.1 2016: Occupational protective gloves – Selection, use and maintenance. Suitable protective workwear e.g., cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

Eye/Face Protection

Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform to relevant regulations. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 2 & 6 2012 – Eye Protectors for Industrial Applications. If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Organic vapor cartridge with a particulate pre-filter. Reference should be made to Australian Standards AS/NZS 1715 2009, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716 2012, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.



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Hygiene Measure

Wash hands before meal breaks and at the end of a work period.
Any contaminated clothing should be removed. Avoid inhaling any fumes on a long-term basis.

Other information

Selection and use of personal protective equipment should be in accordance with the recommendations in one or more of the relevant Australian/ New Zealand Standards, including:
AS/NZS 1336: Eyes and face protection – Guidelines.
AS/NZS 1337: Personal eye protection – Eye and face protectors for occupational applications.
AS/NZS 1715: Selection, use and maintenance of respiratory protective equipment.
AS/NZS 2161: Occupational protective gloves.
AS/NZS 2210: Occupational protective footwear.
AS/NZS 4501: Occupational protective clothing set.

Occupational Exposure Limits:

Decomposition products: Ethanol [64-17-5]

TWA: 1000 ppm, 1880 mg/m³

Source: Safe Work Australia

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical Form	Low viscosity liquid
Colour	Milky white
Odour	Weak earthy
pH	No data available
Boiling Point	>35°C at 760 mmHg
Melting Point	Not Applicable
Flash Point	Closed cup >100°C
Freezing Point	Approx. 0°C
Autoignition	Only ignites in the presence of a very strong ignition source and water content evaporated.
Water Solubility	Miscible
Vapour Pressure	Not Known
Vapour density	Not Known
Specific Gravity	1.0 g/cc @ 25°C
Dynamic Viscosity	50 mPas
Corrosivity	Not Corrosive
Flammability	Not Flammable
Explosion Properties	Product is not explosive.
Oxidising Properties	Non-oxidising



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SECTION 10 – STABILITY AND REACTIVITY

Stability	Stable as supplied at normal (average) atmospheric temperatures.
Reactivity	Can react with strong oxidizing agents.
Conditions to Avoid	Heat, open flames, and other sources of ignition. Protect from freezing.
Decomposition Products	Thermal decomposition may result in the release of toxic and/or irritating fumes including: carbon dioxide, carbon monoxide, formaldehyde, ethanol, oxides of phosphorous and silicon oxides.
Hazardous Polymerization	Not Available.

SECTION 11 – TOXICOLOGICAL INFORMATION

Available toxicity data is given below.

Based on information for components:

Acute Toxicity – Inhalation

Octyl(triethoxy)silane LC50 (rat, male and female): > 22 ppm/4h (vapour)
No deaths occurred at this concentration.

Dodecan-1-ol, ethoxylated LC50 (rat): >1.6 mg/L/4h (dust/mist)

Acute Toxicity – Dermal LD50 (rabbit): > 5,000 mg/kg (estimated).

Acute Toxicity – Oral LD50 (rat): >5,000 mg/kg (estimated).

Respiratory sensitisation Not expected to be a respiratory sensitiser.

Skin Sensitisation Not expected to be a skin sensitiser.

Germ cell mutagenicity Not considered to be a mutagenic hazard.

Carcinogenicity Not considered to be a carcinogenic hazard.

Reproductive Toxicity Suspected of damaging fertility or the unborn child. Classified as a suspected human reproductive or developmental toxicant.

STOT – single exposure Not expected to cause toxicity to a specific target organ.

STOT – repeated exposure Not expected to cause toxicity to a specific target organ.
In animals, effects have been reported on the following organs: urinary tract.
Findings from a combined repeated-dose toxicity study with reproductive/developmental screening endpoints on n-octyltriethoxysilane have shown neurological effects in rats at high doses (1000 mg/kg). Paralysis and paresis of the limbs, and demyelination of the brain, spinal cord, sciatic and tibial nerves was noted in some animals.
Based on information for components.



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STOT – repeated exposure

Not expected to cause toxicity to a specific target organ.
In animals, effects have been reported on the following organs:
urinary tract.
Findings from a combined repeated-dose toxicity study with reproductive/developmental screening endpoints on n-octyltriethoxysilane have shown neurological effects in rats at high doses (1000 mg/kg). Paralysis and paresis of the limbs, and demyelination of the brain, spinal cord, sciatic and tibial nerves was noted in some animals.
Based on information for component(s).

Aspiration Hazard

Not expected to be an aspiration hazard.

SECTION 12 – ECOLOGICAL INFORMATION

Persistence and degradability

Octyl(triethoxy)silane

Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.
10-day Window: Fail
Biodegradation: 31.5% biodegradability in 28 days.
Method: OECD Test Guideline 301D or Equivalent

Siloxanes and silicones,
dimethyl, hydroxy terminated

Chemical degradation (hydrolysis) is expected in the environment.

Dodecan-1-ol, ethoxylated

Based on data from similar materials.
Material is expected to be readily biodegradable.
Biodegradation: 89% biodegradability in 28 days.
Method: OECD Test Guideline 301B

Mobility

Siloxanes and silicones,
dimethyl, hydroxy terminated

Potential for mobility in soil is high:
(Koc between 50 and 150).
Partition coefficient (Koc): 130 Estimated.

Bioaccumulative Potential

Octyl(triethoxy)silane

Bioaccumulation: Bioconcentration potential is high:
(BCF >3000 or Log Pow between 5 and 7).
Partition coefficient: n-octanol/water(log POW): 6.41.

Siloxanes and silicones,
dimethyl, hydroxy terminated

Bioaccumulation:
Bioconcentration potential is low:
(BCF <100 or Log Pow <3).
Partition coefficient: n-octanol/water(log POW):
0.63 (measured).
Bioconcentration factor (BCF):
<5.8 (Cyprinus carpio (Carp)) (measured).



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Dodecan-1-ol, ethoxylated

Bioaccumulation: Based on data from similar materials.
Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).
Bioconcentration factor (BCF): <500.

Other Adverse Effects

Octyl(triethoxy)silane, Siloxanes and silicones, dimethyl, hydroxy terminated, Dodecan-1-ol, ethoxylated: These substances are not on the Montreal Protocol list of substances that deplete the ozone layer.

Environmental Protection

Prevent this material entering waterways, drains and sewers.

Triethoxy(octyl)silane

Acute toxicity to fish

Not expected to be acutely toxic to aquatic organisms.

No toxicity at the limit of solubility.

LC50, Oncorhynchus mykiss (rainbow trout), flow through test:
>0.055 mg/L/96h, OECD Test Guideline 203 or Equivalent.

Acute toxicity to Daphnia

No toxicity at the limit of solubility.

EC, Daphnia magna (water flea), flow through test:
>0.049 mg/L/48h, OECD Test Guideline 202 or Equivalent.

Acute toxicity to algae/ aquatic plants

No toxicity at the limit of solubility.

ErC50, Pseudokirchneriella subcapitata (green algae), static test,
Growth rate inhibition:
>0.13 mg/L/72h, OECD Test Guideline 201 or Equivalent.

Dodecan-1-ol, ethoxylated

Acute toxicity to fish

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

LC50 (Danio rerio (zebra fish)): >1-10 mg/L/96h

Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/l in the most sensitive species tested). Based on data from similar materials.

LC50 (Carassius auratus (goldfish)): 60-70 mg/L/96h

Acute toxicity to Daphnia

Based on data from similar materials.

EC50 (Daphnia magna (water flea)): >1-10 mg/L/48h

Acute toxicity to algae/ aquatic plants

Based on data from similar materials.

EC50 (Pseudokirchneriella subcapitata (green algae)):
>0.1-1 mg/L/72h

Based on data from similar materials.

NOEC, Pseudokirchneriella subcapitata (green algae)):
>0.1-1 mg/L/72h



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SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal

Allow absorbents to dry out in the open atmosphere. Contaminated product should be reprocessed by an approved organisation. Place any dried absorbent in plastic bags, seal and dispose at an approved site in accordance with all Federal, State/Provincial and local laws and regulations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. Do not re-use containers for any purpose.

SECTION 14 – TRANSPORT INFORMATION

Shipping Name	DAMP-PEL C
Other Names	Polydimethylsiloxane emulsion
Dangerous Goods Code	None
Subsidiary Risk	None
UN Number	None
Packaging Group	None
I.E.R.G. No.	None
HAZCHEM	None

SECTION 15 – REGULATORY INFORMATION

None Known.

SECTION 16 – OTHER INFORMATION

The details in this document are based on the state of our knowledge at the time of revision. They do not constitute an assurance of the described product properties in terms of statutory warranty requirements.

The providing of this document to a recipient does not relieve the recipient of his or her responsibility toward compliance with all laws and stipulations applicable to the product.

Directions for use are on the label and brochure describing **DAMP-PEL C**.

SDS NEXT REVIEW DATE **29 July 2024**

END OF SDS FOR DAMP-PEL C