

The information contained within this Technical Data Sheet, details product description, health and safety hazard information of the product and how to safely handle and use the product in the workplace. Also refer to the MSDS for more information. Each user of this product should read the MSDS 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 or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Demtech Australia Pty Ltd. Demtech Australia Pty Ltd makes no representation as to the completeness and accuracy of the data contained within this data sheet. It is the user's obligation to evaluate and use this product safely, and to comply with all relevant Federal, State and Local Government laws and regulations. Demtech Australia Pty Ltd shall not be responsible for loss, damage or injury resulting from reliance upon or failure to adhere to any recommendation or information contained herein, from abnormal use of the material, or any hazard inherent in the nature of the material.

DESCRIPTION

Properties

Cureflex[®] TitanSealTM (Clear) is our strongest sealant yet.

- Ultra high performance and fast curing formulation.
- Can be applied directly onto wet surfaces and substrates*¹.
- Stays flexible once cured and dries with incredible optical clarity.
- No hazardous ingredients (isocyanates, solvents, halogens or acids).

Storage

Unopened product has a shelf life of 12 months. Store in a cool, dry place (5-25°C). Avoid direct sunlight.

Applications

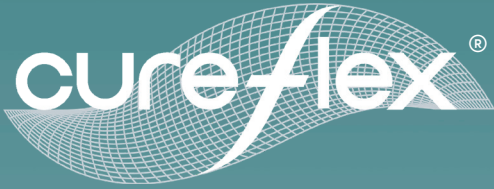
Suitable for use on: metals, glass, mirrors, timber, fibrous sheeting, concrete, acoustic underlay, plastics*², rubber, vinyl, laminex, ceramics and painted surfaces. Always test suitability prior to use (formulated for neutral curing).

*¹ Remove excess water/ponding before applying product.

*² Excluding PE, PP, PTFE, silicones and bituminous substrates.

PHYSICAL PROPERTIES

Consistency	Stable paste	Max. distortion	±20%
Curing system	Moisture curing	Temp. resistance	-40°C to 90°C
Skin formation (20°C/65%R.H.)	Ca. 10 min.	Max. tension (DIN 53504)	2.40N/mm ²
Curing speed (20°C/65%R.H.)	2-3mm/24h	Elasticity modulus 100% (DIN 53504)	0.80N/mm ²
Hardness	38 ± 5 (Shore A)	Elongation at break (DIN 53504)	300%
Density	1.04g/ml	Application temp.	5°C to 35°C
Elastic recovery (ISO 7389)	>75%		



IMPORTANT NOTICES & CONTACT POINTS

General

The information contained herein is based on present state of our knowledge and does not guarantee certain properties. Recipients of our products must take responsibility for observing laws and regulations. The information contained within is published free of charge in good faith, based on technical data that Demtech Australia Pty Ltd considers to be reliable.

Disclaimer

The information within is intended for use by skilled and/or persons with technical knowledge. They are required to make their own assessment and use product at their own risk and discretion. Information contained in this product sheet conforms to the standard detail recommendations and specification for the use of Demtech Australia products as of the date of this document. Demtech Australia Pty Ltd makes no other warranties and assumes no liability, expressed or implied. To ensure that you are using the most up to date information, contact Demtech Australia Pty Ltd.

Technical Department

Demtech Australia Pty Ltd (ABN 91 131 136 706)
16 Logis Blvd, Dandenong South VIC 3175 Australia
Website: www.demtech.com.au
Technical Support: 1300 300 090

Australian Poisons Information Centre

13 11 26

Police & Fire Brigade

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1. PRODUCT IDENTIFICATION

Product identifier

Product name	Cureflex® TitanSeal™ (Clear)
Chemical name	Not available
Proper shipping name	Not available

Details of the supplier of the safety data sheet

Registered company name	Demtech Australia Pty Ltd
Address	16 Logis Blvd, Dandenong South VIC 3175 Australia
Telephone	1300 300 090
Fax	Not available
Website	www.demtech.com.au
Email	reception@demtech.com.au

Emergency telephone number

Association/organisation	Not available
Emergency telephone number	Not available
Other emergency telephone	Not available



2. HAZARD IDENTIFICATION

Classification of the substance or mixture

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

Poisons schedule Not applicable.

Classification Not applicable.

Hazard statement(s)

Not applicable.

General precautionary statement(s)

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

Prevention precautionary statement(s)

Not applicable.

Response precautionary statement(s)

Not applicable.

Storage precautionary statement(s)

Not applicable.

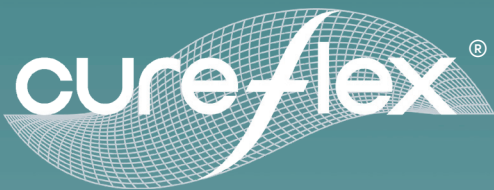
Disposal precautionary statement(s)

Not applicable.

3. PRODUCT COMPOSITION

Composition of mixtures

CAS No	% (weight)	Name
2768-02-7	>0.1	trimethoxyvinylsilane
13822-56-5	1- <3	3-(trimethoxysilyl)propylamine
63843-89-0	0.1- <0.25	bis(1,2,2,6,6-pentamethyl-4-piperidyl)[3,5,-bis(1,1- dimethylethyl-4]
54068-28-9	0.1- <1	dioctylbis(pentane-2,2- dionato-O,O)tin
13463-41-7	0.01- <0.1	pyrithione zinc



4. FIRST AID MEASURES

Description of first aid measures

Eye contact	If this product comes in contact with the eyes: <ul style="list-style-type: none">• Wash out immediately with fresh running water.• Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.• Seek medical attention without delay; if pain persists or recurs seek medical attention.• Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin contact	If skin or hair contact occurs: <ul style="list-style-type: none">• Flush skin and hair with running water (and soap if available).• Seek medical attention in event of irritation.
Inhalation	<ul style="list-style-type: none">• If fumes, aerosols or combustion products are inhaled, remove from contaminated area.• Other measures are usually unnecessary.
Ingestion	<ul style="list-style-type: none">• Immediately give a glass of water.• First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of any immediate medical attention and special treatment needed

- Treat symptomatically.

5. FIREFIGHTING MEASURES

Extinguishing media

- Water fog (of fine water spray if unavailable).
- Standard foam or alcohol resistant foam.
- Dry agent (carbon dioxide, dry chemical powder).

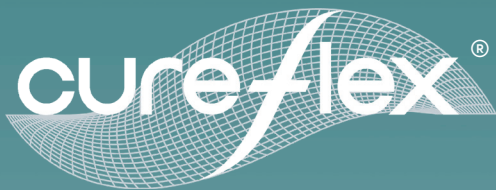
Special hazards arising from the substrate or mixture

Fire incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.
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Advice for firefighters

Fire fighting	<ul style="list-style-type: none">• Alert fire brigade and tell them location and nature of hazard.• Wear breathing apparatus plus protective gloves.• Prevent, by any means available, spillage from entering drains or water courses.• Use water delivered as a fine spray to control fire and cool adjacent area.• DO NOT approach containers suspected to be hot.• Cool fire exposed containers with water spray from a protected location.• If safe to do so, remove containers from path of fire.• Equipment should be thoroughly decontaminated after use.
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HAZCHEM	Not applicable.
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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See Section 8.

Environmental precautions

See Section 12.

Methods and materials for containment and cleaning up

Minor spills

- Clean up all spills immediately.
- Wear protective equipment to prevent skin and eye contamination.
- Avoid inhalation of vapours or dust.
- Wipe up with absorbent (clean rag or paper towels).
- Collect and seal in properly labelled containers or drums for disposal.

Major spills

- Clear area of all unprotected personnel.
- Slippery when spilt.
- Avoid accidents, clean up immediately.
- Wear protective equipment to prevent skin and eye contamination and the inhalation of dust.
- Work up wind or increase ventilation.
- Cover with damp absorbent (inert material, sand or soil).
- Sweep or vacuum up, but avoid generating dust.
- Collect and seal in properly labelled containers or drums or disposal.
- If contamination of crops, sewers or waterways has occurred, advise local emergency services.

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

7. HANDLING & STORAGE

Precautions for safe handling

- Store in a cool, dry, well ventilated place and out of direct sunlight.
- Store away from foodstuffs.
- Store away from sources of heat and/or ignition.
- Keep container standing upright.
- Keep containers closed when not in use.
- Check regularly for spills.

Conditions for safe storage, including any incompatibilities

Suitable container

- Lined metal can, lined metal pail/can.
- Plastic pail.
- Polyliner drum.
- Packing as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

Storage incompatibility

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

8. EXPOSURE CONTROLS

Control parameters

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
Cureflex® TitanSeal™ (Clear)	Not available	Not available	Not available	Not available

Ingredient	Original IDLH	Revised IDLH
Cureflex® TitanSeal™ (Clear)	Not available	Not available

Exposure controls

Personal protection



Eye and face protection

- Safety glasses.
- Chemical goggles.

Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation. Lens should be removed in a clean environment only after workers have washed hands thoroughly (CDC NIOSH Current Intelligence Bulletin 59) (AS/NZS 1336 or national equivalent).

Skin protection

See hand protection below.

Hand/feet protection

- Wear chemical protective gloves, e.g. PVC.
- Wear safety footwear or safety gumboots, e.g. rubber.

The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.

Important factors in the selection of gloves include:

- Frequency and duration of contact.
- Chemical resistance of glove material.
- Glove thickness.
- Dexterity.

8. EXPOSURE CONTROLS Cont.

Exposure controls

Hand/feet protection

Select gloves tested to a relevant standard:

- When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
- When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
- Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.
- Contaminated gloves should be replaced.

Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.

As defined in ASTM F-739-96 in any application, gloves are rated as:

- Excellent when breakthrough time >480 min.
- Good when breakthrough time >20 min.
- Fair when breakthrough time <20 min.
- Poor when glove material degrades.

For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended. It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.

Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be taken into account to ensure selection of the most appropriate glove for the task.

Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks.

- Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.
- Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential.

Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended. When handling hot materials wear heat resistant, elbow length gloves. Rubber gloves are not recommended when handling hot objects, materials Protective gloves eg. Leather gloves or gloves with leather facing.

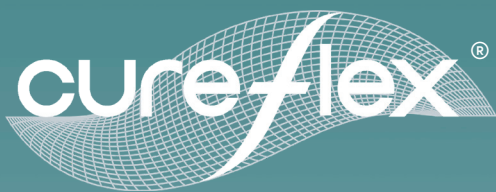
Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present.

- Polychloroprene.
- Nitrile rubber.
- Butyl rubber.
- Fluorocautchouc.
- Polyvinyl chloride.

Gloves should be examined for wear and/or degradation constantly.

Body protection

See other protection below.



8. EXPOSURE CONTROLS Cont.

Exposure controls

Other protection

- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.
- Eye wash unit.

9. PHYSICAL & CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Translucent/transparent	Relative density (water = 1)	1.053 (20°C)
Physical state	Stable paste	Partition coefficient	Not available
Odour	Mild odour	Auto-ignition temperature (°C)	Not available
Odour threshold	Not available	Decomposition temperature	Not available
pH (as supplied)	Not available	Viscosity (cSt)	Not available
Melting/freezing point (°C)	Not available	Molecular weight (g/mol)	Not available
Boiling point/range (°C)	Not available	Taste	Not available
Flash point (°C)	Not available	Explosive properties	Not available
Evaporation rate	Not available	Oxidising properties	Not available
Flammability	Not available	Surface tension (dyn/cm or mN/m)	Not available
Upper explosive limit (%)	Not available	Volatile component (%vol)	Not available
Lower explosive limit (%)	Not available	Gas group	Not available
Vapour pressure (kPa)	Not available	pH as a solution (1%)	Not available
Solubility in water	Insoluble	VOC g/l	Not available
Solubility	Organic solvents	Vapour density (air = 1)	Not available



10. STABILITY & REACTIVITY

Chemical stability	Product is considered stable when stored and used as directed.
Conditions to avoid	Avoid elevated temperatures and sources of ignition.
Hazardous reactions	No known hazardous reactions.
Hazardous decomposition products	Oxides of carbon and nitrogen, smoke and other toxic fumes.
Incompatible materials	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	Material may be an irritant to mucous membranes and respiratory tract. This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients) LC50>5mg/L.
Ingestion	Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract. This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients) >2000mg/Kg bw.
Skin contact	Contact with skin may result in irritation. This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients) >2000mg/Kg bw.
Eye contact	May be an eye irritant. May cause physical irritation to the eyes. Exposure to dust may cause discomfort due to particulate nature. This material has been classified as not corrosive or irritating to eyes.

No adverse health effects expected if the product is handled in accordance to this MSDS and the product label.

Acute toxicity	×	Carcinogenicity	×
Skin irritation/corrosion	×	Reproductivity	×
Serious eye damage/irritation	×	STOT: Single exposure	×
Respiratory or skin sensitisation	×	STOT: Repeated exposure	×
Mutagenicity	×	Aspiration hazard	×

Legend: ✓ Data available to make classification.

✗ Data either not available or does not fill the criteria for classification.



12. ECOLOGICAL INFORMATION

Toxicity

Endpoint	Test duration (hr)	Species	Value	Source
Not available	Not available	Not available	Not available	Not available

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
Cureflex® TitanSeal™ (Clear)	Not available	Not available

Bioaccumulative potential

Ingredient	Bioaccumulation
Cureflex® TitanSeal™ (Clear)	Not available

Mobility in soil

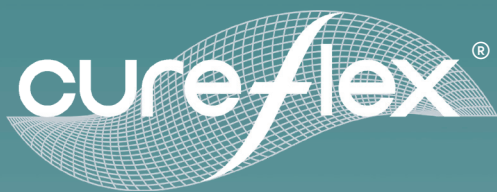
Ingredient	Mobility
Cureflex® TitanSeal™ (Clear)	Not available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Product/packaging disposal:

- Legislation addressing waste disposal requirements may differ by country, state and/or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. A hierarchy of controls seems to be common and the user should investigate: Reduction; Reuse; Recycling; Disposal (if all else fails). This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.
- DO NOT allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.



14. TRANSPORT INFORMATION

Labels required

Marine pollutant	Not available
HAZCHEM	Not available

- Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS.
- Air transport (ICAO-IATA/DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS.
- Sea transport (IMDG-Code/GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS.
- Transport in bulk according to Annex II of MARPOL and the IBC Code: Not applicable.

15. REGULATORY INFORMATION

National inventory status

National Inventory	Status
Australia - AICS	Not available
Canada - DSL	Not available
Canada - NDSL	Not available
China - IECSC	Not available
Europe - EINEC/ELINCS/NLP	Not available
Japan - ENCS	Not available
Korea - KECI	Not available
New Zealand - NZIoC	Not available
Philippines - PICCS	Not available
USA - TSCA	Not available
Taiwan - TCSI	Not available
Mexico - INSQ	Not available
Vietnam - NCI	Not available
Russia - ARIPS	Not available

Legend: Yes = All CAS declared ingredients are on the inventory.

No = Not determined or one or more ingredients are not on the inventory and are not exempt from listing.

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: Bio-concentration Factors

BEI: Biological Exposure Index