



Designer Concrete CRS 3000 Colour Dispersion (Part C)

Safety Data Sheet according to WHS and ADG requirements:

Issue Date: 24 February 2017

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

Product Identifier:

Product Name: Designer Concrete CRS 3000 Colour Dispersion (Part C)
Product Code(s): Marl Grey WR-960; Light Shale WR-962;
Smokey Slate WR-961; Metal Stone WR-964;
Steely Grey WR-963; Charred WR-975;
Cashmere WR-675; Tumbleweed WR-966; Mink WR-676;
Chestnut WR-967; Inspiration WR-968;
River Rock WR-677; Desert Sand WR-672;
Antique Beige WR-965; Harvest WR-681;
Bondi Sand WR-969, Pimento WR-684; Merlot WR-685.

Other means of identification: Metal Oxides Aqueous Colorants.

Synonym(s): Designer Concrete Resurfacing Colour Tinters.

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

Aqueous colorant (Part C) admixture for Designer Concrete CRS 3000 Concrete Resurfacing System Part A CRS 3000 Designer White & Part B CRS 3000 Cement Modifier mix design in accordance with Designer Concrete Coatings specification used to apply a decorative wearing layer to hard-state concrete surfaces.

Details of the supplier of the safety data sheet:

Registered Company Name: Designer Concrete Coatings Pty Ltd
Address: 19 Liverpool Street, Ingleburn, NSW, 2565, Australia
Telephone: +61 2 9829 3311
Fax: +61 2 9829 3544
Website: www.designerconcrete.com.au
Email: sales@designerconcrete.com.au

Emergency telephone number:

Association / Organisation: Not Available
Emergency telephone number: Australia: 0414 466 180 (quote metal oxide aqueous colorant – Designer Concrete Coatings)
Other emergency telephone numbers: Australian Poisons Information Centre 13 11 26
Emergency Transport Only (Ambulance) 000

SECTION 2: HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE:

NON HAZARDOUS SUBSTANCE. NON DANGEROUS GOOD. According to the criteria of Safe Work Australia (SWA); and, The Australian Dangerous Goods Code (ADG). A Poisons Schedule Number has not been allocated to this product. Safe Work Australia criteria are based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.

Signal Word: Not Applicable: **GHS Pictogram:** Not Applicable.

However, caution must still be taken in handling and storage for health and safety:
The classifications and phrases listed below are based on Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)]

Risk Phrases:

The product would be potentially hazardous to health if exposure in excessive amounts was prolonged. However, normal usage does not present a potential health risk and is not considered hazardous.

R22	Harmful if Swallowed
R36/38	Irritating to eyes. Irritating to skin.
R51/53	Toxic to aquatic organisms; may cause long term adverse effects in the aquatic Environment.
R67	Vapours may cause drowsiness and dizziness.
R65	Harmful; may cause lung damage if swallowed.

Hazard Codes:

Xi	Irritant.
Xn	Harmful (prolonged exposure in excessive amounts).

Safety Phrases:

S02	Keep out of reach of children
S3/7/9	Keep container tightly closed in a cool, well ventilated place
S22/21	When using, do not eat, drink or smoke.
S23	Do not breathe fumes/vapour/spray.
S24/25	Avoid contact with skin and eyes.
S26	In case of contact with eyes, rinse immediately with plenty of water And seek medical advice.
S29	Do not empty into drains.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection
S45	In case of accident or if you feel unwell, seek medical advice immediately: (show the label (and this SDS) when possible/
S46	If swallowed, seek medical advice immediately and show container or label
S51	Use only in well ventilated areas.
S61	Avoid release into the environment
S62	If swallowed, do NOT induce vomiting: seek medical advice immediately and show container/label

Precautionary Statement(s) Disposal

P501	Dispose of contents / container in accordance with local, regional, national And international regulations.
------	--

POTENTIAL HEALTH EFFECTS:

Skin Contact:	Prolonged contact may cause slight skin irritation with local redness.
Eye Contact:	May cause eye irritation.
Ingestion:	Low toxicity if swallowed. Small amounts swallowed/ingested resulting from Normal handling operations unlikely to be injurious to health. Overexposure swallowing/ingestion in large amounts may cause injurious Health effects.
Inhalation:	Prolonged and excessive overexposure to mist emissions may cause serious Adverse health effects (in extreme cases, even death). Vapour may cause irritation of the upper respiratory tract (nose and throat).
Aspiration Hazard:	Based on physical properties, unlikely to be an aspiration hazard.

HAZARDS IDENTIFICATION – EXPOSURE SHORT TERM/LONG TERM:

Inhalation:

Short Term Exposure:

High vapour pressures may cause drowsiness and dizziness.

The product may be mildly irritating but unlikely to cause no more than mild transient discomfort.

Long Term Exposure:

Vapours may cause drowsiness or dizziness.

It is not recommended for people to repeatedly inhale this product.

Skin Contact:

Short Term Exposure:

Open cuts, abraded or irritated skin should not be exposed to this product.

The material may accentuate pre-existing skin conditions such as dermatitis.

Available data would classify this product as a harmful skin irritant but symptoms are not available.

Whilst the product is acknowledged as an irritant, it is unlikely to cause no more than mild transient discomfort to most individuals under normal handling conditions of exposure.

Long Term Exposure:

Repeated exposure may cause skin dryness or cracking.

It is not recommended for people susceptible to skin irritations to repeatedly allow this product to come into contact with the skin.

Eye Contact:

Short Term Exposure:

This product is an eye irritant. Symptoms may include immediate or delayed stinging and reddening of the eyes and watering or an infection. If exposure is brief, symptoms may only cause mild transient discomfort.

Seek immediate medical attention if symptoms persist.

Long Term Exposure:

Whilst no data is available for health effects associated with long-term eye exposure, failure to wear appropriate eye protection or delayed treatment of repeated eye irritation may cause permanent damage. It is not recommended to allow this product to come into contact with the eyes.

Ingestion:

Short Term Exposure:

Ingestion is unlikely through normal use. However, swallowing any amount of this product may cause immediate or delayed abdominal discomfort. This product is an oral irritant and is classified as harmful but symptoms advice is not available. In the event that any dose of this material is ingested with repeated symptoms of burning sensation and/or reddening of lips, mouth or throat, seek immediate medical advice.

Long Term Exposure:

Whilst no data is available for health effects associated with long term ingestion exposure, delayed treatment

of ingestion discomfort may cause harmful health effects. It is not recommended to repeatedly swallow this product.

Carcinogen Status:

SWA: No Significant ingredient is classified as a carcinogenic by Safe Work Australia.
 NTP: No significant ingredient is classified as a carcinogenic by National Toxicology Program (USA).
 IARC: No significant ingredient is classified as a carcinogenic by International Agency for Research on Cancer

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Entity:	CAS No.	EINECS No.	INDEX No.	Proportion (%w/w)
WR-299 Terracotta				
Pigment Red 101-C.I. 77491 Synthetic Iron Oxide, δ -Fe ₂ O ₃	1309-37-1	215-570-8 / 215-168-2	N/A	65 - 70
WR-301 Black Oxide				
Pigment Black 11-C.I. 77499 Iron Oxide Black/Tri-Iron Teraoxide	1317-61-9	215-277-5	N/A	65 - 70
WR-305 Yellow Oxide				
Pigment Yellow 42-C.I. 77492 Hydrated Ferric Oxide, Synthetic	203-49-4 / 51274-00-1	243-746-4	N/A	55 - 60
WR-306 Red Oxide				
Pigment Red 101-C.I. 77491 Synthetic Iron Oxide, δ -Fe ₂ O ₃	1309-37-1	215-570-8 / 215-168-2	N/A	65 - 70
WR-306F Red Oxide				
Pigment Red 101-C.I. 77491 Synthetic Iron Oxide, δ -Fe ₂ O ₃	1309-37-1	215-570-8 / 215-168-2	N/A	65 - 70
WR-313 White				
Pigment White 6-C.I. 77891 Titanium Dioxide (Rutile, Chloride Process).	13463-67-7	236-675-5	N/A	65 - 70
WR-314 Green Oxide				
Pigment Green 17-C.I. 77288 Chromium Oxide Green	1308-38-9	215-160-9	N/A	60 - 65
WR-393 Blue TOBNE Red Oxide				
Pigment Red 101-C.I. 77491 Synthetic Iron Oxide, δ -Fe ₂ O ₃	1309-37-1	215-570-8 / 215-168-2	N/A	65 - 70
WR-762 Black Oxide				
Pigment Black 11-C.I. 77499 Iron Oxide Black / Tri-Iron Teraoxide	1317-61-9	215-277-5	N/A	65 - 70
General:				
Propylene Glycol	57-55-6	200-338-0	N/A	4 - 8%
Other Ingredients not considered to be hazardous or below reported levels.	N/A	N/A	N/A	1.5 - < 3.0 Depending on colour
WATER	7732-18-5	231-791-2	N/A	To 100%
All components in this preparation listed/registered with Australian Inventory of Chemical Substances (AISC)				

SECTION 4: FIRST AID MEASURES

If Poisoning occurs, contact a doctor at once or Poisons Information Centre (131 126 Australia); or, (0800 764 766 New Zealand)

Inhalation:

Inhalation of mists/vapours from this product may have an immediate or delayed effect (symptoms of pulmonary oedema up to 48-hours) to irritate, inflame or sensitise the nose, throat and lungs; and, exacerbate pre-existing conditions such as asthma and bronchitis.

Remove victim from exposure – avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If breathing is laboured and patient cyanotic (blue), ensure airways are clear and have qualified person give oxygen through a facemask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage. Seek immediate medical advice: Call 000 ambulance emergency.

Skin Contact:

For gross contamination, immediately and gently blot away excess liquid; drench with water and remove clothing. Continue to flush skin and hair with plenty of water (and soap if material is insoluble). If swelling, redness, blistering or irritation occurs, seek medical assistance. This material can be absorbed through skin abrasions with resultant toxic effects. Seek immediate medical advice.

Eye Contact:

In the event that this material comes into contact with the eyes it may have an immediate or delayed irritating effect resulting in redness, watering and/or infection.

Quickly blot away excess liquid. Avoid contamination of facial skin and if only one eye is affected. Eyes should be immediately and thoroughly flushed with lukewarm water for as long as necessary to alleviate the problem (or for at least 20-minutes). 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. Removal of contact lenses after an eye injury should only be conducted by a trained individual. Professional medical assistance should be sought immediately (preferably from an ophthalmologist) if symptoms persist.

Ingestion:

Low toxicity in small dose, however, swallowing this product may cause immediate or delayed abdominal discomfort and ingested in large dose can potentially increase risk of gastro-intestinal infection

Rinse mouth with water. If swallowed, do NOT induce vomiting. Hazard aspiration into lungs may occur with serious pulmonary injury risk to the patient. Give glass of water to drink and medical attention should be sought if any abdominal symptoms occur. Do NOT give anything by mouth to an unconscious patient. If vomiting occurs, give additional water to drink. Seek immediate medical advice. Call Poisons Information Centre: 13 11 26.

PPE for First Aiders:

Wear overalls, safety glasses and impervious gloves. If inhalation risk exists wear a suitable respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

Medical Attention / Advice to Doctor:

Treat symptomatically. There is no specific antidote. Direct treatment of overexposure at the control of symptoms and clinical condition of patient. Principal routes of exposure are skin contact/absorption; and, inhalation of vapour/mists causing sensitisation difficulty in breathing similar to asthma. Symptoms may be delayed after exposure. Patients with significant exposure – observe 24-48-hours for respiratory distress.

SECTION 5: FIREFIGHTING MEASURES:

THE PRODUCT IS NON-FLAMMABLE AND NON-COMBUSTIBLE: (HIGH WATER-CONTENT)**Risk Hazards.**

- Inhalation of heated and toxic or oxygen deficient (or both) fire gasses.
- In the event of an explosion from heat rupture of containers, fire may spread to surrounding materials. Water spray to cool drums to reduce risk of potential explosion.
- Violent steam generation or eruption may occur upon application of direct water stream on hot liquids.
- Fire decomposition products from this material may be toxic if inhaled. Fire fighters should wear appropriate PPE.

Extinguishing Media:**Suitable Extinguishing Equipment:**

Unrestricted for the type of extinguishing media used. Apply the appropriate extinguishing media for the surrounding fire.

Specific Hazards:

Avoid spraying water directly into storage containers due to danger of boil-over. Avoid (if possible) contaminated water run-off into drainage points and/or water courses.

Fire Fighting Further Advice:

Heating can cause expansion or decomposition leading to violent rupture of containers. If safe to do so, remove containers from path of fire. Keep containers cool with water spray. On burning, may emit toxic fumes. Fire fighters should wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

Special Protective Equipment and Precautions for Fire Fighters:

Wear breathing apparatus when fighting fire.

Hazchem Code: None Allocated

SECTION 6: ACCIDENTAL RELEASE MEASURES:

Minor Spill:

Wear protective equipment to prevent skin and eye contamination. Wipe up with absorbent material (clean rags or paper towels) or absorb with sand, sawdust or earth. Collect in drums and arrange for disposal by a competent contractor in accordance with local regulations.

Major Spill:

Shut off all possible sources of discharge. Ground equipment capable of electrostatic charge. Clear area of all unprotected personnel. Secure the site and contain spill by bunding the area and cover drains to protect against over-ground run-off into waterways and surrounding land and drainage systems. Slip hazard when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up-wind or increase ventilation. Use absorbent material (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal by competent contractor in accordance with local regulations. If contamination of drains, sewers or waterways occurs, immediately advise local emergency services and EPA.

Dangerous Goods – Initial Emergency Response Guide Not Applicable.

SECTION 7: HANDLING AND STORAGE:

Precaution(s) for Safe Handling:

When handling this material ensure that workers stay away from equipment that is moving and/or processing exposed material and avoid coming into contact by:

- Wearing appropriate and suitable Personal Protection Equipment (See Section 8 Exposure Controls and Personal Protection).

Additional Handling Procedures Should Include:

- Limit exposure to the product.
- Wash any areas of the body that the product may have come into contact after handling / use.
- Keep work areas clean and well ventilated.
- When handling this material, ensure the environment is protected from release: Dispose of containers in accordance with authorised measures.
- Shower and change after completion of use.
- Wash face and hands after handling.

Conditions for Safe Storage:

Store in a cool, dry, well-ventilated place and out of direct sunlight. Do not store below 5°C or above 50°C. Do not store with or near foodstuff. Store away from heat sources or ignition sources. Keep containers closed when not in use – check regularly for leaks; and, to avoid potential contamination and/or evaporation. Avoid storing with 'incompatible materials'. See Section 10 Stability & Reactivity.

This material is **NOT** classified as a **Dangerous Good** under the criteria of Australian Dangerous Goods Code

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION:

Engineering Controls:

No special equipment is usually required when occasionally handling small quantities of the material outdoors or adequately ventilated indoor areas. In a manufacturing or bulk storage operation, best protection is to enclose the area and with local exhaust ventilation at the site of chemical release. DO NOT enter confined spaces where vapour may have collected without appropriate PPE. Keep containers closed when not in use.

Exposure Controls:**Personal Protection Equipment: (PPE)**

OVERALLS; SAFETY SHOES; SAFETY GLASSES; GLOVES; RESPIRATOR.

The following Australian / New Zealand Standards will provide general advice regarding safety clothing and equipment:

Respiratory Equipment: AS/NZS 1715: Selection, use and maintenance of respiratory protective equipment.
Protective Gloves: AS/NZS 2161: Occupational Protective Gloves
Eye & Face Protection: AS/NZS 1336: Eye and Face Protection (Guidelines)
Personal Eye Protection: AS/NZS 1337: Eye & Face protectors for occupational applications
Protective Footwear: AS/NZS 2210: Occupational Protective Footwear.

Protective Clothing: AS/NZS 4501:2008: Occupational Protective Clothing Set.

PPE: Wear overalls, chemical safety glasses/goggles and impervious gloves. Use with adequate ventilation. If inhalation risk exists wear organic vapour / particulate respirator meeting the requirements of AS/NZS 1715. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Hygiene Measures:

Keep away from foodstuffs, drink and animal foodstuffs & feeding troughs. When using the material, do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid skin and eye contact and inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

The following recommendations are for BULK HANDLING; or, where regular exposure in an occupational setting occurs without fully installed containment systems:

Ventilation:

This product should only be used in a well ventilated area. Ensure sufficient ventilation to maintain concentration below exposure standard in warehouse or closed storage areas. If natural ventilation is inadequate, use local exhaust fan. Refer to AS 2865: Safe working in a confined space. Note: Vapour is heavier than air and may collect in hollows, pits, storage tanks or sumps. Do NOT enter confined spaces where vapour may have collected without using an approved, positive-pressure, self contained breathing apparatus meeting the requirements of AS/NZS 1715 and AS/NZS 1716; and, have an observer present.

Eye Protection:

Protective glasses or goggles should be worn in accordance with Standards Australia/New Zealand recommendations when using this product. Failure to protect the eyes exposes the user to eye health risk. Emergency eye-wash facilities should be available for first aid treatment in the workplace when using this product.

Skin Protection:

Avoid contact with skin. Wear impervious gloves, clothes and inclusive of a suitable protective apron. Protective clothing materials typically most appropriate include: Viton, nitrile, polyvinyl alcohol, Teflon, PE/EVAL.

Respirator:

In normally small dose end-use trade application, a respirator is not usually required. However, all users of this product should seek Standards Australia/New Zealand recommendations (AS/NZS 1715: 2009) Selection, use and maintenance of respiratory protective devices.

Flammability:

Not classified flammable. However, fire hazard risk may be elevated if container drums/pails are exposed to direct heat sources, naked flame or other ignition sources; and, oxidising materials. Refer to AS: 1940 – storage and handling of flammable and combustible liquids for advice recommendations.

Exposure Limits:

No value has been assigned for this specific material by the National Occupational Health and Safety Commission. However, the TLV-TWA (Threshold Limit Value – Time Weighted Average) concentrations of the workplace atmosphere 8-hour workday/40-hour work week without adverse effect (guidelines only) for some of the individual constituents of the product are listed below:

Propylene Glycol (Propane-1, 2-diol - - CAS No. 57-55-6) – Total: (Vapour & Particulates).

TWA: 474mg/m³ (150ppm) – Total: Vapour & Particles – 8-hour.

TWA: 10mg/m³ – Particulates Only – 8-hour.

Titanium Dioxide – As Respirable Dust:

Titanium Dioxide (CAS No. 13463-67-7): TWA: 10mg/m³ STEL: Not Set.
Zirconium Dioxide (CAS No. 1314-23-4): TWA: 05mg/m³ STEL: 10mg/m³
Silica Amorphous – Precipitated Silica: TWA: 02mg/m³ (as a component of Titanium Dioxide)

Aluminium Hydroxide – (CAS No. 21645-51-2) – as a component of Titanium Dioxide.

Acute Oral Toxicity: LD₅₀: >5,000 mg/kg, Rat.

Amorphous Silica – (CAS No. 7631-86-9) – as a component of Titanium Dioxide

Acute Oral Toxicity: LD₅₀: >5,000 mg/kg, Rat
Acute Dermal Toxicity: LD₅₀: >2,000 mg/kg, Rabbit
Acute Inhalation Toxicity: LC₅₀: >2.2 mg/L (Rat) – 4-hour

ACGIH Carcinogens – as a component of Titanium Dioxide.

Aluminium Hydroxide (CAS No. 21645-51-2) A4 Not Classified as a human carcinogen
Titanium Dioxide (CAS No. 13463-67-7) A4 Not classified as a human carcinogen
Zirconium Dioxide (CAS No. 1314-23-4) A4 Not classified as a human carcinogen

IARC Monographs:

Overall Evaluation of Carcinogenicity: Titanium Dioxide (CAS No. 13463-67-7) 2B Possibly carcinogenic to humans.

Ferric Oxide Red, Synthetic / Pigment Red 101 – (CAS No. 1309-37-1)

TLV: TWA: 5mg/m³ (Dust & Fume)
TLV: TWA: 3.5mg/m³ (as Dust)
A4 (Not classifiable as a human carcinogen); (ACGIH: 2004) / Carcinogen category: 3B
STEL: 10mg/m³ (as Fe) 15-minute (Dust & Fume)

Ferric Oxide Yellow, Synthetic / Pigment Yellow 42 – (CAS No. 20344-49-4 / 51274-00-1)

TLV: TWA: 5mg/m³ (Dust and Fume)
TLV: TWA: 3.5mg/m³ (as Dust)
A4 (Not classifiable as a human carcinogen); (ACGIH: 2004) / Carcinogen category: 3B
STEL: 10mg/m³, (as Fe) 15-minute (Dust & Fume)

Black Iron Oxide (Tri-Iron Teraoxide – CAS No. 1317-61-9)

TLV: TWA: 5mg/m³ (as Fe) (Fume) 8-hours
A4 (Not classifiable as a human carcinogen); (ACGIH: 2004) / Carcinogen category: 3B
STEL: 10mg/m³; (as Fe) 15-minute (Fume)

Chromium Oxide – (CAS No. 1308-38-9)

TLV: TWA: 0.5mg/m³ (as Cr.) 8-hours

NOTES:

These exposure standards are guides to be used in the control of occupational health hazards.

All contamination should be kept too as low a level as is workable.

These exposure standards should not be used as fine dividing lines between safe and dangerous concentration of chemicals. TLV – TWA exposure limits are for air levels only. They are not a measure of relative toxicity.

If the direction for use on the product label / specification are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers routinely, potentially exposed during product manufacture. Refer to SWA Exposure standards and follow recommendations.

Avoid contact with skin. Vapour and/or liquid may be absorbed through skin exposure.

If you continually feel unwell from repeated exposure to the product, seek immediate medical advice from a health professional; and, if required referral to an occupational diseases specialist.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES:

Properties	Unit of Measurement	Typical Value
Appearance	Not Applicable	Viscous Liquid, mixes with water
Odour	Not Applicable	Characteristic Odour
Solubility (Water) % Weight	Not Applicable	Miscible in water
Vapour Pressure @ 20°C	Hg	<23mm Hg
Vapour Density	(Air = 1)	Not Available
Melting Point	°C	Not Applicable
Freezing Point	°C	Not Available
Boiling Point	°C	>100

Auto Ignition Temperature	°C	Not Available
Explosive Limits	% Volume	Not Applicable
Flash Point	°C	Not Applicable
pH	pH	8.5 – 9.5
Flammability Limits	% (v/v)	Not Available
VOC Content	-	Negligible at Normal Temperature
Evaporation Rate	>1	Butyl Acetate = 1

Specific Gravity: @ 25°C:	WR-299 Terracotta:	2.140 ± 0.005	(Water)
	WR-301 Black Oxide:	2.200 ± 0.005	(Water)
	WR-305 Yellow Oxide:	1.700 ± 0.005	(Water)
	WR306 Red Oxide:	2.140 ± 0.005	(Water)
	WR-306F Red Oxide:	2.140 ± 0.005	(Water)
	WR-313 White:	1.980 ± 0.005	(Water)
	WR-314 Green Oxide:	1.800 ± 0.005	(Water)
	WR-393 Blue Tone Red Oxide:	2.140 ± 0.005	(Water)
	WR-762 Black Oxide:	2.200 ± 0.005	(Water)

NVM: % (w/w):	WR-299 Terracotta:	72.5 ± 0.5
	WR-301 Black Oxide:	77.5 ± 0.5
	WR-305 Yellow Oxide:	65.0 ± 0.5
	WR-306 Red Oxide:	72.5 ± 0.5
	WR-306F Red Oxide:	75.0 ± 0.5
	WR-313 White:	76.5 ± 0.5
	WR-314 Green Oxide:	74.0 ± 0.5
	WR-393 Blue Tone Red Oxide:	72.5 ± 0.5
	WR-762 Black Oxide:	77.5 ± 0.5

Volatiles: % (w/w):	WR-299 Terracotta:	27.5 ± 0.5
	WR-301 Black Oxide:	22.5 ± 0.5
	WR-305 Yellow Oxide:	35.0 ± 0.5
	WR-306 Red Oxide:	27.5 ± 0.5
	WR-306F Red Oxide:	25.0 ± 0.5
	WR-313 White:	23.5 ± 0.5
	WR-314 Green Oxide:	26.0 ± 0.5
	WR-393 Blue Tone Red Oxide:	27.5 ± 0.5
	WR-762 Black Oxide:	22.5 ± 0.5

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES (CONTINUED)

Viscosity: @ 20°C: Viscous Paste.

Other Properties: Contact with strong oxidisers may cause fire and explosion.

SECTION 10: STABILITY AND REACTIVITY

Reactivity:

No reactivity or decomposition hazards are likely to occur with the material under normal storage conditions. Refer to Section 7: Handling & Storage.

Chemical Stability:

This material is thermally stable when stored and used in accordance with this Safety Data Sheet.

Conditions to Avoid:

Do not allow the product to freeze: (Contains water). Store above 5°C and below 50°C.
Do not store the product in poorly ventilated areas.
Do not store the product in poorly sealed containers that cannot be kept tightly closed.
Do not store the material exposed to direct sunlight – handle and open containers carefully.
Do not store near ignition sources.

Incompatible Materials:

Avoid contact with strong alkalis, mineral acids, halogens & strong oxidisers.

Hazardous Decomposition Products:

In a fire situation, combustion forms carbon dioxide; and, if incomplete, carbon monoxide, metal oxides and smoke. Carbon monoxide is a poisonous gas hazard that produces headache, weakness, nausea, dizziness, confusion and may lead to unconsciousness and potentially fatal consequences.

Hazardous Reactions:

This product will not undergo polymerisation reactions.

SECTION 11: TOXICOLOGICAL INFORMATION:

No adverse health effects expected if the product is used and handled in accordance with this Safety Data Sheet and directions on the product label. Symptoms or health effects that may or will arise if the product is mishandled and overexposure occurs are:

Acute Health Effects:

Ingestion:

Swallowing can result in nausea and vomiting. Ingestion in large quantity can result in likelihood of vomit entering the lungs and causing subsequent complications. Do not induce vomiting.

Eye Contact:

The material may cause eye irritation.

Skin Contact:

Contact with skin may result in irritation. Open cuts, abraded or irritated skin should not be exposed to this material.

Inhalation:

The material may be an irritant to mucous membranes and respiratory tract. Inhalation of vapours can result in headaches, dizziness and possible nausea. Inhalation hazard is increased at higher temperatures.

Toxicity:

This material has been classified as non-hazardous. No LD₅₀ data specific to this product is available. However, the following information guide is for applicable and relevant principal ingredients of the product.

Propylene Glycol (Propane-1, 2-diol – CAS No. 57-55-6):

Acute Oral Toxicity:	LD ₅₀ (Rat) :	>20,000 mg/kg
Acute Dermal Toxicity:	LD ₅₀ (Rabbit) :	>2,000 mg/kg

Chronic Health Effects:

Non-carcinogenic based on animal studies. Non-mutagenic. No reproductive or development effects. Cats given high doses of MPG in diet showed a decrease in red blood cell survival.

Titanium Dioxide (CAS No. 13463-67-7):

Acute Oral Toxicity:	LD ₅₀ (Rat) :	>5,000 mg/kg
Acute Inhalation Toxicity:	LC ₅₀ (Rat) :	>6.82/L / 4.hour
Acute Dermal Toxicity:		Not Available.
Respiratory or Skin Sensitisation:		No respiratory sensitising properties in animal studies or in exposure related observations in humans.

Aluminium Hydroxide (CAS No. 21645-51-2) – as a component of Titanium Dioxide.

Acute Oral Toxicity:	LD ₅₀ (Rat) :	>5,000 mg/kg
----------------------	--------------------------	--------------

Amorphous Silica (CAS No. 7631-86-9) – as a component of Titanium Dioxide.

Acute Oral Toxicity:	LD ₅₀ (Rat) :	>5,000 mg/kg
Acute Dermal Toxicity:	LD ₅₀ (Rabbit) :	>2,000 mg/kg
Acute Inhalation Toxicity:	LC ₅₀ (Rat) :	>2.2 mg/L / 4.hour

ACGIH Carcinogens – as components of Titanium Dioxide.

Aluminium Hydroxide (CAS No. 21645-51-2)	A4: Not classifiable as a human carcinogen
Titanium Dioxide (CAS No. 13463-67-7)	A4: Not classifiable as a human carcinogen
Zirconium Dioxide (CAS No. 1314-23-4)	A4: Not classifiable as a human carcinogen

IARC Monographs

Overall evaluation of Carcinogenicity Titanium Dioxide (CAS No. 13463-67-7)	2B Possibly carcinogenic to humans
---	------------------------------------

Acute Oral Toxicity:	Low Toxicity:	LD ₅₀ (Rat) :	>5,000 mg/kg
Acute Dermal Toxicity:	Low Toxicity:	LD ₅₀ (Rat) :	>5,500 mg/kg
Irritation/Corrosion Skin:	Non-irritating		
Ingestion:	Non-irritating		
Eyes:	Non-irritating		
Sensitiser (Guinea Pig):	Not sensitising		
Chronic Effects:	Repeated or prolonged inhalation of dust/vapours may lead to chronic respiratory irritation		
Carcinogenicity Data:	The ingredient(s) of this product is (are) not classed as carcinogenic by ACGIH, IARC, OSHA or NTP.		
Reproductive Data:	No adverse effects anticipated		
Mutagenicity Data:	No adverse effects anticipated		
Teratogenicity Data:	No adverse effects anticipated		

SECTION 11: TOXICOLOGY INFORMATION (CONTINUED):

Ferric Oxide Yellow, Synthetic / Pigment Yellow 42 (CAS NO. 20344-49-4 / 51274-00-1)

Acute Oral Toxicity:	Low Toxicity:	LD ₅₀ (Rat) :	>5,000/kg
Acute Inhalation Toxicity:	Dusts/Mists	LC ₅₀ (Rat) :	>195gm/m ³ / 6.hour
Irritation/Corrosion Skin:	Non-irritating		
Ingestion:	Non-irritating		
Eyes:	Non-irritating		
Sensitiser (Guinea Pig)	Not sensitising		
Chronic Effects:	Repeated & prolonged inhalation of dust/mist may lead to chronic respiratory irritation		
Carcinogenicity Data:	The ingredient (s) of this product is (are) not classed as carcinogenetic by ACGIH, IARC, OSHA or NTP.		
Reproductive Data:	No adverse effects anticipated		
Mutagenicity Data:	No Adverse effects anticipated		
Teratogenicity Data:	No adverse effects anticipated		

Black Iron Oxide (Tri-Iron Teraoxide) (CAS No. 1317-61-9)

Acute Oral Toxicity:	Low Toxicity:	LD ₅₀ (Rat – Female) :	>5,000mg/kg
Inhalation:	No known significant effects or critical hazards		
Ingestion:	No known significant effects or critical hazards		
Skin Contact:	No known significant effects or critical hazards		
Eyes:	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation		
Sensitiser (Guinea Pig):	Not sensitising		
Chronic Effects:	Repeated or prolonged inhalation of dust/mist may lead to chronic respiratory irritation		
Carcinogenicity Data:	The ingredient(s) of this product is (are) not classed as carcinogenic by ACGIH, IARC, OSHA or NTP		
Reproductive Data:	No adverse effects anticipated		
Mutagenicity Data:	No adverse effects anticipated		
Teratogenicity Data:	No adverse effects anticipated		

Chromium Oxide (CAS No. 1308-38-9)

Acute Oral Toxicity:	Low Toxicity:	LD ₅₀ (Rat) :	>5,000mg/kg
Acute Inhalation Toxicity:	Dusts/Mists:	LC ₅₀ (Rat) :	>5.41g/m ³ / 4.hour
Eyes:	Non-irritating		
Skin:	Non-irritating		
Sensitiser (Guinea Pig):	Not sensitising		
Carcinogenicity Data:	The ingredient(s) of this product is (are) not classed as carcinogenic by ACGIH, IARC, OSHA or NTP		
Mutagenicity Data:	No adverse effects anticipated		
Chronic Effects:	Repeated or prolonged inhalation of dust/mist may lead to chronic respiratory irritation		

Special Properties / Effects:

Over-exposure, especially during spraying operations without the necessary precautions (PPE) entails the risk of concentration-dependent irritating effects on eyes, nose, throat and respiratory tract. Delayed effects may include development of hyper-sensitivity (difficulty breathing, coughing, asthma symptoms).

SECTION 12: ECOLOGICAL INFORMATION:

Avoid contaminating waterways, waste water or soil. The product is miscible in water. Use appropriate extinguishing media in fires to avoid water discharge into drainage points/water courses.

Aquatic Hazard(s) / Acute Toxicity:**Propylene Glycol (Propane-1, 2-diol – CAS No. 57-55-6)**

Acute Toxicity Fish:	LC ₅₀ (Rainbow Trout):	40,613mg/L – 96 hour
Acute Toxicity Invertebrates:	EC ₅₀ (Daphnia [water flea])	13,020mg/L – 48 hour
Acute Toxicity Algae:	EC ₅₀ (Selenastrum capricornutum)	24,200mg/L – 72 hour
Persistence/Degradability:	Readily biodegradable	
Bioaccumulation:	No Data Available	

Titanium Dioxide (CAS No. 13463-67-7)

Acute Toxicity Fish:	LC ₅₀ (Flathead; Minnow) :	>1,000mg/L – 96 hour
Acute Toxicity Daphnia:	EC ₅₀ (Daphnia Magna) :	>100mg/L – 48 hour
Acute Toxicity Algae:	EC ₅₀ (Pseudokirchnerella subcapitata)	61mg/L – 72 hour
Acute Toxicity Bacteria:	EC ₅₀ (Escherichia coli)	>1,000mg/L – 1 hour
Persistence/Degradability:	Highly insoluble in water. Considered not biodegradable.	
Mobility:	Limited mobility. Insoluble in water and other solvents.	
Ecotoxicity:	Not expected to be hazardous to the environment	
Environmental Fate:	Do NOT allow product to enter waterways, drains & sewers	
Bioaccumulative Potential:	Unlikely to be significant due to low solubility in water.	

Amorphous Silica (CAS No. 7631-86-9) – as a component of Titanium Oxide.

Acute Toxicity Fish:	LC ₅₀ (Brachydanio Rerio):	5,000mg/l – 96 hour
Acute Toxicity Invertebrates:	EC ₅₀ (Daphnia Magna):	7,600mg/L – 48 hour
Acute Toxicity Algae:	EC ₅₀ :	440mg/L – 72 hour

Ferric Oxide Red, Synthetic / Pigment Red 101 (CAS No. 1309-37-1)

Acute Toxicity Fish:	LC ₀ (Leuciscus Idus) [Golden Orfe] ::	>1,000mg/L – 48 hour
Acute Toxicity Invertebrates:	LC ₅₀ (Daphnia Magna) :	>100mg/L – 48 hour
Acute Toxicity Bacteria:	Harmless (Pseudomonas Putida):	>1,000 mg/L

No appreciable bio-concentration is expected in the environment.

The product is practically insoluble in water. May be separated by most filtration or sedimentation process. No ecological hazards have been identified for this product.

The product has a detrimental aesthetic effect visually. Avoid release into the environment.

Ferric Oxide Yellow, Synthetic / Pigment Yellow 42 (CAS No. 20344-49-4 / 51274-00-1)

Acute Immobilisation Test:	EC ₅₀ (Daphnia Magna)	>100mg/L – 48 hour
Acute Toxicity Fish (Mortality):	LC ₀ (Danio Rerio) :	>10,000mg/L
	LC ₀ (Leuciscus Idus) :	>1,000mg/L
Acute Toxicity Bacteria:	Harmless (Pseudomonas Putida):	>1,000mg/L

No appreciable bio-concentration is expected in the environment.

The product is practically insoluble in water. May be separated by most filtration or sedimentation process. No ecological problems have been identified for this product.

The product has a detrimental aesthetic effect visually. Avoid release into the environment.

Black Iron Oxide (Tri-Iron Teraoxide – CAS No. 1317-61-9)

Acute Toxicity Daphnia: EU C.2:	EC ₅₀ :	>1,000mg/L – 48 hour
Activated Sludge, Respiration Inhibition:	EC ₅₀ :	>1,000mg/L – 3 hour
OECD: 209: Acute Test; Fresh Water Bacteria		
Adapted and activated sludge micro-organisms:		

SECTION 12: ECOLOGICAL INFORMATION (CONTINUED):**Black Iron Oxide (Tri-Iron Teraoxide) [Continued]**

Acute Toxicity Fish: LC₅₀: >10,000mg/L – 96 hours
 OECD: 203: Acute Test: Fresh Water Fish – Danio Rerio.

No appreciable bio-concentration is expected in the environment.
 The product is practically insoluble in water. May be separated by most filtration or sedimentation process.
 No ecological problems have been identified for this product.
 The product has a detrimental aesthetic effect visually. Avoid release into the environment.

Chromium Oxide (CAS No. 1308-38-9)

Bacteria: IS08192 – Activated Sludge: EC₅₀: >1,000mg/L – 3 hour
 Acute Toxicity Fish (Fresh Water): LC₅₀ (Danio Rerio) : >1,000mg/L – 96 hour

No appreciable bio-concentration is expected in the environment.
 The product is practically insoluble in water. May be separated by most filtration or sedimentation process.
 No ecological problems have been identified for this product.
 The product has a detrimental aesthetic effect visually. Avoid release into the environment.

SECTION 13: DISPOSAL CONSIDERATIONS:

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate Personal Protection Equipment is used. Refer to Section 8. Exposure Controls and Personal Protection PPE.

Refer to Waste Management Authority. Dispose of waste material through a licensed waste contractor. Advise potential flammable nature. Advise that the product is NOT suitable for disposal by either landfill or via municipal drains & waterways. Reclamation may be achieved by filtration, distillation or some other means.

If possible, waste material and container should be recycled. If waste material and container cannot be recycled, disposal must be in accordance with local, national and international regulations. Do not re-use empty containers. Do not pressurise, cut, heat or weld empty containers. May contain combustible chemical residue.

SECTION 14: TRANSPORT INFORMATION:**Road & Rail Transport:**

No classified as Dangerous Goods by the criteria of the Australian Code for the Transport of Dangerous Goods by Road and Rail; and, the New Zealand NZS5433: Transport of Dangerous Goods on Land.

UN No:	None Allocated
---------------	-----------------------

Proper Shipping Name:	Not Applicable
DG Class:	None Allocated
Subsidiary Risk:	Not Applicable
Packaging Group:	None Allocated
Hazchem Code:	None Allocated
Initial Emergency Response Guide:	Not Applicable
Poisons Schedule:	Not Scheduled
Storage / Transport Temperature: °C	Ambient
Storage / Transportation Pressure kPa	Atmospheric
Electrostatic Accumulation Hazard:	Use Proper Grounding Procedures

Segregation Dangerous Goods: Not to be loaded with explosives (Class 4); Flammable gasses (Class 2.1), if both are in bulk: Spontaneous combustible substances (Class 4.2); Oxidising agents (Class 5.1); Organic peroxides (Class 5.2); or, Radioactive substances (Class 7) albeit some exemptions may apply. Do not load with foodstuff or foodstuff empties.

Marine Transport:

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code.

UN No:	None Allocated
Proper Shipping Name:	Not Applicable
DG Class:	Not Applicable
Packaging Group:	None Allocated

Air Transport:

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for Transport by Air.

UN No:	None Allocated
Proper Shipping Name:	Not Applicable
DG Class:	Not Applicable
Packaging Group:	None Allocated

SECTION 15: REGULATORY INFORMATION:

This material is NOT subject to the following International Agreements:

Montreal Protocol (Ozone Depleting Substances)
The Stockholm Convention (Persist Organic Pollutants)
The Rotterdam Convention (Prior Informed Consent)

This material / constituent(s) are covered by the following requirements:

- All the constituents of this material are listed on the *Australian Inventory of Chemical Substances* (AICS).
- This Product is compliant with NICNAS Regulations.

SECTION 16: OTHER INFORMATION:

Revision Requirement: Information updates of all sections to comply with Code of Practice Safe Work Australia December 2011.

Abbreviations:

ADG: Australian Code for Transport of Dangerous Goods by Road and Rail.

CAS Number: Chemical Abstracts Number.

HMIS: Hazardous Materials Identification System.

TWA/TLV: Time - Weighted Average airborne concentration over an 8-hour working day, for 5-day working week over an entire working life.

STEL: Short-Terms Exposure Limit; the average airborne concentration over a 15-minute period which should NOT be exceeded at any time during a normal -8-hour working day.

AICS: Australian Inventory of Chemical Substances.

SWA: Safe Work Australia (Formerly ASCC and HOHSC)

HAZCHEM CODE: Emergency Action Code of numbers and letters that provide information to emergency services; particularly fire fighters.

IARC: International Agency for Research on Cancer.

N.O.S: Not otherwise specified.

NTP: National Toxicology Program (USA)

SUSMP: Standard for the Uniform Scheduling of Medicines & Poisons.

UN Number: United Nations Number.

Sk NOTICE: Absorption through skin, mucous membranes and eye may be a significant source of exposure. The Exposure Standard is invalid if such contact should occur. Contact with eyes and mucous membranes may also contribute to overall exposure and may also invalidate the Exposure Standard.

LD₅₀: Lethal Dose, 50%

LC₅₀: Lethal Concentration, 50%

EC₅₀: Half-Maximum Effective Concentration

IC₅₀: Half-Maximum Inhibitory Concentration

TLM: Median Tolerance Limit

log Pow / log P (o/w): Partition Constant; or, Partition Ratio; or, Distribution Ratio – the ratio of concentrations of a compound in the two phases of a mixture of two immiscible solvents at equilibrium.

NOEC: No Observed Effect Concentrations

NOAEL: No Observed Adverse Effect Level: **NOEL:** No Observed Effect Level.

AOX: Absorbable Organically Bound Halogens

ThOD: Theoretical Oxygen Demand

COD: Chemical Oxygen Demand

BOD: Biochemical Oxygen Demand.

Principal References:

- Manufacturer's Safety Data Sheet (25/04/14)
- "Registry of Toxic Effects of Chemical Substances 1995" (Ed. D. Sweet) [US Dept. Of Health & Human Services: Cincinnati: 1995]

Disclaimer:

This Safety Data Sheet (SDS) has been prepared to the best belief of the manufacturer as to its accuracy and reliability as at the date of issue. No warranty expressed or implied is made as to its full reliability or completeness but is considered the appropriate information required by the user in the context of how the product must be handled and used in the workplace and including in conjunction with other products or materials present. Since the manufacturer cannot anticipate or control the conditions under which this information may or will be used, it is the user's responsibility to determine the safety, risk and fitness-for-purpose of the product under the conditions and environment where the product is intended to be used; and, responsibility to ensure that the SDS issue date is current. This information given is a non-controlled document and Designer Concrete Coatings Pty Ltd shall not be liable for personal injury or property damage associated with use or misuse of the product.