

DOWSIL 791 Weatherproofing Sealant Black #113-092 (NZ) RS Components

Chemwatch: 5477-53

Version No: 2.1.4.8 Safety Data Sheet according to the Health and Safety at Work (Hazardaus Subst

Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017

SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier

Product name	DOWSIL 791 Weatherproofing Sealant Black #113-092 (NZ)
Chemical Name	Not Applicable
Synonyms	Product Code: 113-092
Chemical formula	Not Applicable
Other means of identification	Not Available

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

Relevant identified uses Construction materials and additives.

Details of the supplier of the safety data sheet

Registered company name	RS Components
Address	PO Box 12-127 Penrose, Auckland New Zealand
Telephone	+64 27 4747122
Fax	+64 9 579 1700
Website	www.nz.rs-online.com
Email	Not Available

Emergency telephone number

Association / Organisation	CHEMWATCH EMERGENCY RESPONSE
Emergency telephone numbers	+61 2 9186 1132
Other emergency telephone numbers	+64 800 700 112

Once connected and if the message is not in your prefered language then please dial 01

SECTION 2 Hazards identification

Classification of the substance or mixture

Classification ^[1]	Flammable Liquid Category 4, Germ cell mutagenicity Category 2, Carcinogenicity Category 1, Specific target organ toxicity - repeated exposure Category 2	
Legend:	1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI	
Determined by Chemwatch using GHS/HSNO criteria	3.1D, 6.6B, 6.7A, 6.9B	

Label elements



Danger

Signal word

Hazard statement(s)	
H227	Combustible liquid.
H341	Suspected of causing genetic defects.
H350	May cause cancer.

Chemwatch Hazard Alert Code: 3

lssue Date: **27/07/2021** Print Date: **28/07/2021** L.GHS.NZL.EN

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary	statement(s)	Prevention
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P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe mist/vapours/spray.
P280	Wear protective gloves and protective clothing.

Precautionary statement(s) Response

P308+P313 IF exposed or concerned: Get medical advice/ attention.	
P370+P378	In case of fire: Use alcohol resistant foam or normal protein foam to extinguish.
P314	Get medical advice/attention if you feel unwell.

Precautionary statement(s) Storage

P403	Store in a well-ventilated place.
P405	Store locked up.

Precautionary statement(s) Disposal

Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 Composition / information on ingredients

P501

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
13463-67-7	0-4.9	titanium dioxide
1328-53-6	0-3.2	C.I. Pigment Green 7
20344-49-4	0-2.8	ferric hydroxide
51274-00-1	0-2.4	C.I. Pigment Yellow 42
12001-26-2	0-1.9	mica
7727-43-7	0.1-1.2	barium sulfate
1185-55-3	0.59-0.67	methyltrimethoxysilane
Legend:	Legend: 1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L * EU IOELVs available	

SECTION 4 First aid measures

Description of first aid measures If this product comes in contact with the eyes: 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 Eye Contact 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. If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Skin Contact Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation. If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Inhalation Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary Transport to hospital, or doctor. If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Ingestion Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

for copper intoxication:

Unless extensive vomiting has occurred empty the stomach by lavage with water, milk, sodium bicarbonate solution or a 0.1% solution of potassium ferrocyanide (the resulting copper ferrocyanide is insoluble).

- Administer egg white and other demulcents.
- Maintain electrolyte and fluid balances.

Continued...

DOWSIL 791 Weatherproofing Sealant Black #113-092 (NZ)

- Morphine or meperidine (Demerol) may be necessary for control of pain.
- If symptoms persist or intensify (especially circulatory collapse or cerebral disturbances, try BAL intramuscularly or penicillamine in accordance with the supplier's recommendations.
- Treat shock vigorously with blood transfusions and perhaps vasopressor amines.
- If intravascular haemolysis becomes evident protect the kidneys by maintaining a diuresis with mannitol and perhaps by alkalinising the urine with sodium bicarbonate.
- It is unlikely that methylene blue would be effective against the occassional methaemoglobinemia and it might exacerbate the subsequent haemolytic episode.
- Institute measures for impending renal and hepatic failure.
- [GOSSELIN, SMITH & HODGE: Commercial Toxicology of Commercial Products]
 - A role for activated charcoals for emesis is, as yet, unproven.

In severe poisoning CaNa2EDTA has been proposed.

[ELLENHORN & BARCELOUX: Medical Toxicology]

For acute or short term repeated exposures to iron and its derivatives:

- Always treat symptoms rather than history.
- In general, however, toxic doses exceed 20 mg/kg of ingested material (as elemental iron) with lethal doses exceeding 180 mg/kg.
- Control of iron stores depend on variation in absorption rather than excretion. Absorption occurs through aspiration, ingestion and burned skin.
- Hepatic damage may progress to failure with hypoprothrombinaemia and hypoglycaemia. Hepatorenal syndrome may occur.
- Iron intoxication may also result in decreased cardiac output and increased cardiac pooling which subsequently produces hypotension.
- Serum iron should be analysed in symptomatic patients. Serum iron levels (2-4 hrs post-ingestion) greater that 100 ug/dL indicate poisoning with levels, in excess of 350 ug/dL, being potentially serious. Emesis or lavage (for obtunded patients with no gag reflex) are the usual means of decontamination.
- Activated charcoal does not effectively bind iron.
- Catharsis (using sodium sulfate or magnesium sulfate) may only be used if the patient already has diarrhoea.
- Deferoxamine is a specific chelator of ferric (3+) iron and is currently the antidote of choice. It should be administered parenterally. [Ellenhorn and Barceloux: Medical Toxicology]

SECTION 5 Firefighting measures

Extinguishing media

- Foam.
- Dry chemical powder.
 BCF (where regulations)
- BCF (where regulations permit).
 Carbon dioxide.
- Water spray or fog Large fires only.

Special hazards arising from the substrate or mixture

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

Advice for firefighters

Advice for filelighters			
Fire Fighting	 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. 		
Fire/Explosion Hazard	 Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). May emit acrid smoke. Mists containing combustible materials may be explosive. Combustion products include: carbon monoxide (CO) carbon dioxide (CO2) nitrogen oxides (NOx) sulfur oxides (SOx) silicon dioxide (SiO2) metal oxides other pyrolysis products typical of burning organic material. May emit coirosive fumes. 		

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	 Clean up all spills immediately. Avoid contact with skin and eyes. Wear impervious gloves and safety goggles. Trowel up/scrape up. Place spilled material in clean, dry, sealed container. Flush spill area with water.
Major Spills	 Clear area of personnel and move upwind. 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 course.

	Stop leak if safe to do so.
	Contain spill with sand, earth or vermiculite.
	Collect recoverable product into labelled containers for recycling.
	Neutralise/decontaminate residue (see Section 13 for specific agent).
	Collect solid residues and seal in labelled drums for disposal.
	Wash area and prevent runoff into drains.
	After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.
	If contamination of drains or waterways occurs, advise emergency services.
Personal Protective Equipment adv SECTION 7 Handling and st	vice is contained in Section 8 of the SDS.
Precautions for safe handling	
	Avoid all personal contact, including inhalation.
	Wear protective clothing when risk of exposure occurs.
	El les in a well-ventilated area

· Use in a weil-ventilated area.
Prevent concentration in hollows and sumps.

- DO NOT enter confined spaces until atmosphere has been checked.
- DO NOT allow material to contact humans, exposed food or food utensils.
- Avoid contact with incompatible materials.
- Safe handling When handling, DO NOT eat, drink or smoke
 - Keep containers securely sealed when not in use.
 - Avoid physical damage to containers.
 - Always wash hands with soap and water after handling.
 - Work clothes should be laundered separately. Launder contaminated clothing before re-use.
 - Use good occupational work practice.
 - Observe manufacturer's storage and handling recommendations contained within this SDS.
 - + Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.
- Other information
 Store in original containers.

 Keep containers securely sealed.

 No smoking, naked lights or ignition sources.

 Store in a cool, dry, well-ventilated area.

 Store away from incompatible materials and foodstuff containers.
 - Protect containers against physical damage and check regularly for leaks.
 - Observe manufacturer's storage and handling recommendations contained within this SDS.
- Conditions for safe storage, including any incompatibilities

•	
Suitable container	 Metal can or drum Packaging as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.
Storage incompatibility	 Avoid strong acids, bases. Avoid reaction with oxidising agents

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

INGREDIENT DATA						
Source	Ingredient	Material name	TWA	STEL	Peak	Notes
New Zealand Workplace Exposure Standards (WES)	titanium dioxide	Titanium dioxide	10 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	C.I. Pigment Green 7	Particulates not otherwise classified	10 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	C.I. Pigment Green 7	Particulates not otherwise classified respirable dust	3 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	ferric hydroxide	Iron oxide dust and fume (Fe2O3), as Fe	5 mg/m3	Not Available	Not Available	w-A range of airborne contaminants are associated with gas and arc welding. The type of metal being welded, the electrode employed and the welding process will all influence the composition and amount of fume. Gaseous products such as oxides of nitrogen, carbon monoxide and ozone may also be produced. In the absence of specific substances such as chromium, and where conditions do not support the generation of toxic gases, the fume concentration inside the welder's helmet should not exceed 5mg/m3.
New Zealand Workplace Exposure Standards (WES)	ferric hydroxide	Rouge	10 mg/m3	Not Available	Not Available	w-A range of airborne contaminants are associated with gas and arc welding. The type of metal being welded, the electrode employed and the welding process will all influence the composition and amount of fume. Gaseous products such as oxides of nitrogen, carbon monoxide and ozone may also be produced. In the absence of specific substances such as chromium, and where conditions do not support the generation of toxic gases, the fume concentration inside the welder's helmet should not exceed 5mg/m3.
New Zealand Workplace Exposure Standards (WES)	C.I. Pigment Yellow 42	Particulates not otherwise classified	3 mg/m3	Not Available	Not Available	Not Available

Source	Ingredient	Material name	TWA	STEL	Peak	Notes	
		respirable dust					
New Zealand Workplace Exposure Standards (WES)	C.I. Pigment Yellow 42	Particulates not otherwise classified	10 mg/m3	Not Available	Not Available	Not Available	
New Zealand Workplace Exposure Standards (WES)	mica	Mica respirable dust	3 mg/m3	Not Available	Not Available	Not Available	
New Zealand Workplace Exposure Standards (WES)	barium sulfate	Barium sulphate	10 mg/m3	Not Available	Not Available	Not Available	
Emergency Limits							
Ingredient	TEEL-1		-	TEEL-2			TEEL-3
titanium dioxide	30 mg/m3		;	330 mg/m3			2,000 mg/m3
ferric hydroxide	30 mg/m3		;	330 mg/m3			2,000 mg/m3
ferric hydroxide	15 mg/m3		;	360 mg/m3			2,200 mg/m3
ferric hydroxide	24 mg/m3		2	260 mg/m3			1,600 mg/m3
mica	9 mg/m3		9	99 mg/m3			590 mg/m3
barium sulfate	15 mg/m3			170 mg/m3			990 mg/m3
methyltrimethoxysilane	38 mg/m3			410 mg/m3			2,500 mg/m3
Ingredient	Original IDLH	I				Revised IDLH	
titanium dioxide	5,000 mg/m3			Not Available			
C.I. Pigment Green 7	Not Available					Not Available	
ferric hydroxide	2,500 mg/m3			Not Available			
C.I. Pigment Yellow 42	Not Available					Not Available	
mica	1,500 mg/m3					Not Available	
barium sulfate	Not Available					Not Available	
methyltrimethoxysilane	Not Available					Not Available	
Occupational Exposure Banding	J						
Ingredient	Occupationa	Exposure Band Ra	ting			Occupational E	xposure Band Limit
methyltrimethoxysilane	E					≤ 0.1 ppm	
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.						
MATERIAL DATA							

	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection. An approved self contained breathing apparatus (SCBA) may be required in some situations. Provide adequate ventilation in warehouse or closed storage area. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.					
	Type of Contaminant:		Air Speed:			
	solvent, vapours, degreasing etc., evaporating from tank (in	0.25-0.5 m/s (50-100 f/min.)				
Appropriate engineering controls	aerosols, fumes from pouring operations, intermittent conta drift, plating acid fumes, pickling (released at low velocity in	0.5-1 m/s (100-200 f/min.)				
	direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion) f/min.)					
	grinding, abrasive blasting, tumbling, high speed wheel ger very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)				
	Within each range the appropriate value depends on:					
	Lower end of the range	Upper end of the range				
	1: Room air currents minimal or favourable to capture	1: Disturbing room air currents				
	2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity				
	3: Intermittent, low production.	3: High production, heavy use				
	4: Large hood or large air mass in motion	4: Small hood-local control only				
	Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted,					

	accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.
Personal protection	
Eye and face protection	 Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. 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
Hands/feet protection	 Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber NOTE: 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. Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.
Body protection	See Other protection below
Other protection	 Overalls. P.V.C apron. Barrier cream. Skin cleansing cream. Eye wash unit.

Respiratory protection

Type AX-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	AX-AUS P2	-	AX-PAPR-AUS / Class 1 P2
up to 50 x ES	-	AX-AUS / Class 1 P2	-
up to 100 x ES	-	AX-2 P2	AX-PAPR-2 P2 ^

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Black paste with no odour.		
Physical state	Free-flowing Paste	Relative density (Water = 1)	1.52
Odour	No Odour	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	70 (CC)	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Combustible.	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Not Available	pH as a solution (%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

Reactivity	See section 7
Chemical stability	 Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

Information on toxicological effects

Inhaled	Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.					
Ingestion	Ingestion may result in nausea, abdominal irritation, pain and vomiting					
Skin Contact	The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds 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.					
Eye	Limited evidence or practical experience suggests, that the material ma prolonged eye contact may cause inflammation characterised by tempor temporary impairment of vision and/or other transient eye damage/ulce					
Chronic	On the basis of epidemiological data, it has been concluded that prolonged inhalation of the material, in an occupational setting, may produce cancer in humans. Strong evidence exists that the substance may cause irreversible but non-lethal mutagenic effects following a single exposure. Serious damage (clear functional disturbance or morphological change which may have toxicological significance) is likely to be caused by repeated or prolonged exposure. As a rule the material produces, or contains a substance which produces severe lesions. Such damage may become apparent following direct application in subchronic (90 day) toxicity studies or following sub-acute (28 day) or chronic (two-year) toxicity tests. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. There is some evidence that human exposure to the material may result in developmental toxicity. This evidence is based on animal studies where effects have been observed in the absence of marked maternal toxicity, or at around the same dose levels as other toxic effects but which are not secondary non-specific consequences of the other toxic effects. There exists limited evidence that shows that skin contact with the material is capable either of inducing a sensitisation reaction in a significant number of individuals, and/or of producing positive response in experimental animals.					
DOWSIL 791 Weatherproofing Sealant Black #113-092 (NZ)	Not Available	IRRITATION Not Available				
	TOVICITY					
		IRRITATION				
titanium dioxide	dermal (hamster) LD50: >=10000 mg/kg ^[2] Eye: no adverse effect observed (not irritating) ^[1] Inhalation(Rat) LC50: >2.28 mg/4h ^[1] Skin (human): 0.3 mg /3D (int)-mild *					
	Inhalation(Rat) LC50; >2.28 mg/l4h ^[1] Oral(Rat) LD50; >=2000 mg/kg ^[1]	Skin: no adverse effect observed (not irritating) ^[1]				
	тохісіту	IRRITATION				
C.I. Pigment Green 7	Oral(Rat) LD50; >2000 mg/kg ^[1]	Not Available				
ferric hydroxide	ΤΟΧΙΟΙΤΥ	IRRITATION				
	Oral(Rat) LD50; >10000 mg/kg ^[2]	Not Available				
	ΤΟΧΙΟΙΤΥ	IRRITATION				
C.I. Pigment Yellow 42	Oral(Rat) LD50; >5000 mg/kg ^[2]	Not Available				
	ΤΟΧΙΟΙΤΥ	IRRITATION				
mica	Not Available	Not Available				
	ΤΟΧΙΟΙΤΥ	IRRITATION				
barium sulfate	dermal (rat) LD50: >2000 mg/kg ^[1]	Not Available				
	Oral(Mouse) LD50; >3000 mg/kg ^[2]					
	ΤΟΧΙΟΙΤΥ	IRRITATION				
	Dermal (rabbit) LD50: >9500 mg/kg ^[1]	Eye (rabbit): 500 mg/24h - mild				
methyltrimethoxysilane	Inhalation(Rat) LC50; >26000 ppm4h ^[1]	Eye: no adverse effect observed (not irritating) ^[1]				
	Oral(Mouse) LD50; 7000 mg/kg ^[1]	Skin (rabbit): 500 mg open - mild				

	Skin: no adverse effect observed (not irritating) ^[1]
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances
TITANIUM DIOXIDE	 ⁺ UCLID ⁺ Exposure to the material may result in a possible risk of irreversible effects. The material may produce mutagenic effects in man. This concern is raised, generally, on the basis of appropriate studies using mammalian somatic cells in vivo. Such findings are often supported by positive results from in vitro mutagenicity studies. ⁺ For transim dioxide: ⁺ Humans can be exposed to thanium dioxide via inhalation, ingestion or dermal contact. In human lungs, the clearance kinetics of thanium dioxide is portly characterized relative to that in experimental animals. (General particle characteristics and host factors that are considered to affect deposition and retention patterns of inhaled, portly soluble particles such as titanium dioxide that were anongenet to affect deposition and retention patterns of inhaled, portly soluble particles such as titanium dioxide showed particles are barced sensorphon by the gastrothesitian tract and large interindividual virations in block levels of thanium dioxide showed particles are particles on the application of successes containing ultraften titanium dioxide to healthy skin of human volunteers revealed that titanium dioxide hose particles on the particulation successes with plaques and plautal thickning, and mild fibrotic changes. However, the workers in these studies were also exposed to asbestos and/or silica. No data were available on genotoxic effects in ittanium dioxide exposed humans. Mary data on deposition, retention and dearance of titanium dioxide in aperimental animals are available for the inhalation route. Thanium dioxide inhalation studies showed differences — both for normalized pulmonary burden (deposited mass per dy lung, mass per body weight) an clearance kinetics. Anore and burde that the appearance intoxic and that material main as sociated pulmonary effects including lung epithelial cell injury, cholesterol dinaword are are only apperiments and anito
C.I. PIGMENT YELLOW 42	The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing.
METHYLTRIMETHOXYSILANE	The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
TITANIUM DIOXIDE & C.I. PIGMENT YELLOW 42 & MICA	Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production.
TITANIUM DIOXIDE & C.I. PIGMENT GREEN 7 & FERRIC HYDROXIDE & C.I. PIGMENT YELLOW 42 & MICA & BARIUM SULFATE	No significant acute toxicological data identified in literature search.
TITANIUM DIOXIDE & METHYLTRIMETHOXYSILANE	The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

Acute Toxicity	×	Carcinogenicity	✓
Skin Irritation/Corrosion	×	Reproductivity	×
Serious Eye Damage/Irritation	×	STOT - Single Exposure	×
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	*
Mutagenicity	×	Aspiration Hazard	×
			not available or does not fill the criteria for classification le to make classification

SECTION 12 Ecological information

	Endpoint	Test Duration (hr)	Species	Value	Source
OWSIL 791 Weatherproofing Sealant Black #113-092 (NZ)	Not Available		Not Available Not Avail		Not Availab
	Endpoint	Test Duration (hr)	Species	Value	Sourc
	EC50	72h	Algae or other aquatic plants 3.75-7		4
	BCF	1008h	Fish	<1.1-9.6	7
titanium dioxide	EC50	48h	Crustacea	1.9mg/l	2
	LC50	96h	Fish	1.85-3.06mg/l	4
	NOEC(ECx)	504h	Crustacea	0.02mg/l	4
	EC50	96h	Algae or other aquatic plants	179.05mg/l	2
	Endpoint	Test Duration (hr)	Species	Value	Sour
	EC50	72h	Algae or other aquatic plants	>100mg/l	2
	BCF	1008h	Fish	0.51-4.8	7
C.I. Pigment Green 7	EC50	48h	Crustacea	153.6mg/l	2
	LC50	96h	Fish	>100mg/l	2
	NOEC(ECx)		Crustacea	>=1mg/l	2
ferric hydroxide	Endpoint	Test Duration (hr)	Species	Value	Sour
	EC50	72h	Algae or other aquatic plants	18mg/l	2
	EC50	48h	Crustacea	>100mg/l	2
	LC50	96h	Fish	0.05mg/l	2
	NOEC(ECx)	504h	Fish	0.52mg/l	2
	NOEC(ECx)	504h	Fish 0.52mg/		2
	EC50	72h	Algae or other aquatic plants 18mg/l		2
	LC50	96h	Fish	0.05mg/l	2
	Endpoint	Test Duration (hr)	Species	Value	Sour
	NOEC(ECx)	504h	Fish	0.52mg/l	2
C.I. Pigment Yellow 42	EC50	72h	Algae or other aquatic plants	18mg/l	2
	LC50	96h	Fish	Fish 0.05mg/l	
	Endpoint	Test Duration (hr)	Species	Value	Source
mica	Not Available	Not Available	Not Available	Not Available	Not Availat
	Endpoint	Test Duration (hr)	Species	Value	Sour
	NOEC(ECx)	72h	Algae or other aquatic plants	>=1.15mg/l	2
barium sulfate	EC50	72h	Algae or other aquatic plants	>1.15mg/l	2
	LC50	96h	Fish	>3.5mg/l	2
	EC50	48h	Crustacea	32mg/l	4
	Endpoint	Test Duration (hr)	Species	Value	Sourc
	EC50	72h	Algae or other aquatic plants	>3.6mg/l	2
methyltrimethoxysilane	EC50	48h	Crustacea	>122mg/l	2
	LC50	96h	Fish	>110mg/l	2
	NOEC(ECx)	72h	Algae or other aquatic plants	>=3.6mg/l	2

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
titanium dioxide	HIGH	HIGH
methyltrimethoxysilane	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
titanium dioxide	LOW (BCF = 10)
C.I. Pigment Green 7	LOW (BCF = 74)
methyltrimethoxysilane	LOW (LogKOW = -0.6716)

Mobility in soil

Ingredient	Mobility
titanium dioxide	LOW (KOC = 23.74)
methyltrimethoxysilane	LOW (KOC = 381.3)

SECTION 13 Disposal considerations

Waste treatment methods Product / Packaging disposal Bury or incinerate residue at an approved site. Recycle containers if possible, or dispose of in an authorised landfill.

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

Disposal Requirements

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

The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous. DO NOT deposit the hazardous substance into or onto a landfill or a sewage facility.

Burning the hazardous substance must happen under controlled conditions with no person or place exposed to

(1) a blast overpressure of more than 9 kPa; or

(2) an unsafe level of heat radiation.

The disposed hazardous substance must not come into contact with class 1 or 5 substances.

SECTION 14 Transport information

Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (UN): 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

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
titanium dioxide	Not Available
C.I. Pigment Green 7	Not Available
ferric hydroxide	Not Available
C.I. Pigment Yellow 42	Not Available
mica	Not Available
barium sulfate	Not Available
methyltrimethoxysilane	Not Available

Transport in bulk in accordance with the ICG Code

Product name	Ship Type
titanium dioxide	Not Available
C.I. Pigment Green 7	Not Available
ferric hydroxide	Not Available

Product name	Ship Type				
C.I. Pigment Yellow 42	Not Available				
mica	Not Available				
barium sulfate	Not Available				
methyltrimethoxysilane	Not Available				
SECTION 15 Regulatory inf	ormation				
•	ntal regulations / legislation specific for the sub				
This substance is to be managed	using the conditions specified in an applicable Group Sta	Indard			
HSR Number	Group Standard				
HSR002680	Surface Coatings and Colourants Combustible Carcin	nogenic Group Standard 2020			
Please refer to Section 8 of the SE	DS for any applicable tolerable exposure limit or Section	12 for environmental exposure limit			
titanium dioxide is found on the	following regulatory lists				
Chemical Footprint Project - Chem	•	New Zealand Approved Hazardous Substances with controls			
International Agency for Research Monographs	on Cancer (IARC) - Agents Classified by the IARC	New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals			
International Agency for Research	on Cancer (IARC) - Agents Classified by the IARC	New Zealand Inventory of Chemicals (NZIoC)			
Monographs - Group 2B: Possibly carcinogenic to humans		New Zealand Workplace Exposure Standards (WES)			
International WHO List of Propose Manufactured Nanomaterials (MNI	d Occupational Exposure Limit (OEL) Values for				
C.I. Pigment Green 7 is found or	n the following regulatory lists				
New Zealand Inventory of Chemica	als (NZIoC)	New Zealand Workplace Exposure Standards (WES)			
ferric hydroxide is found on the	following regulatory lists				
International Agency for Research	on Cancer (IARC) - Agents Classified by the IARC	New Zealand Workplace Exposure Standards (WES)			
Monographs					
New Zealand Inventory of Chemic	als (NZIOC)				
C.I. Pigment Yellow 42 is found	on the following regulatory lists				
New Zealand Inventory of Chemica	als (NZIoC)	New Zealand Workplace Exposure Standards (WES)			
mica is found on the following r	egulatory lists				
New Zealand Inventory of Chemica	als (NZIoC)	New Zealand Workplace Exposure Standards (WES)			
barium culfato is found on the f	ollowing regulatory lists				
barium sulfate is found on the for New Zealand Inventory of Chemica		New Zealand Workplace Exposure Standards (WES)			
The second and inventory of chemica		THE A SCHOLD AND A SCHOLE SCHOLE SCHOLE SCHOLES			
	d on the following regulatory lists				
methyltrimethoxysilane is found	- Cubeteres with sentenle	New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification			
New Zealand Approved Hazardous					
New Zealand Approved Hazardous New Zealand Hazardous Substand	ces and New Organisms (HSNO) Act - Classification	of Chemicals - Classification Data New Zealand Inventory of Chemicals (NZIoC)			
New Zealand Approved Hazardous		of Chemicals - Classification Data New Zealand Inventory of Chemicals (NZIoC)			
New Zealand Approved Hazardous New Zealand Hazardous Substand of Chemicals	ces and New Organisms (HSNO) Act - Classification				
New Zealand Approved Hazardous New Zealand Hazardous Substand of Chemicals Hazardous Substance Locatio	ces and New Organisms (HSNO) Act - Classification				

Certified Handler

Not Applicable

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

Not Applicable

Class of substance	Quantities
Not Applicable	Not Applicable

Refer Group Standards for further information

Maximum quantities of certain hazardous substances permitted on passenger service vehicles

Subject to Regulation 13.14 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Gas (aggregate water capacity in mL)	Liquid (L)	Solid (kg)	Maximum quantity per package for each classification
3.1C or 3.1D				10 L

Tracking Requirements

Not Applicable

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes

National Inventory	Status	
Canada - NDSL	No (C.I. Pigment Green 7; C.I. Pigment Yellow 42; mica; barium sulfate; methyltrimethoxysilane)	
China - IECSC	Yes	
Europe - EINEC / ELINCS / NLP	Yes	
Japan - ENCS	No (mica)	
Korea - KECI	Yes	
New Zealand - NZIoC	Yes	
Philippines - PICCS	Yes	
USA - TSCA	No (mica)	
Taiwan - TCSI	Yes	
Mexico - INSQ	No (C.I. Pigment Green 7)	
Vietnam - NCI	Yes	
Russia - FBEPH	No (C.I. Pigment Yellow 42)	
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)	

SECTION 16 Other information

Revision Date	27/07/2021			
Initial Date	27/07/2021			
SDS Version Summary				
SDS Version Summary				
SDS Version Summary Version	Date of Update	Sections Updated		

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 ES: Exposure Standard 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 AIIC: Australian Inventory of Industrial Chemicals DSL: Domestic Substances List NDSL: Non-Domestic Substances List IECSC: Inventory of Existing Chemical Substance in China EINECS: European INventory of Existing Commercial chemical Substances ELINCS: European List of Notified Chemical Substances NLP: No-Longer Polymers ENCS: Existing and New Chemical Substances Inventory KECI: Korea Existing Chemicals Inventory NZIoC: New Zealand Inventory of Chemicals PICCS: Philippine Inventory of Chemicals and Chemical Substances TSCA: Toxic Substances Control Act TCSI: Taiwan Chemical Substance Inventory INSQ: Inventario Nacional de Sustancias Químicas NCI: National Chemical Inventory FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances This document is copyright.

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