

ICP Construction

Version No: 2.2

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

SECTION 1 IDENTIFICATION

Product Identifier

Product name	Fres-Coat Premium Exterior Paint Semi-Gloss White - 47100	
Synonyms	Not Available	
Other means of identification	Not Available	

Recommended use of the chemical and restrictions on use

Relevant identified uses	Exterior Paint
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Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	ICP Construction	
Address	150 Dascomb Road Andover MA United States	
Telephone	978-623-9980	
Fax	Not Available	
Website	http://www.icp-construction.com/	
Email	Not Available	

Emergency phone number

Association / Organisation	Chemtel
Emergency telephone numbers	1-800-255-3924
Other emergency telephone numbers	1-813-248-0585

SECTION 2 HAZARD(S) IDENTIFICATION

Classification of the substance or mixture

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Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

Classification	t

Acute Toxicity (Inhalation) Category 4, Germ cell mutagenicity Category 1B, Carcinogenicity Category 1A, Reproductive Toxicity Category 1B, Specific target organ toxicity - repeated exposure Category 2, Acute Aquatic Hazard Category 1, Chronic Aquatic Hazard Category 1

Label elements

Hazard pictogram(s)	
SIGNAL WORD	DANGER

Hazard statement(s)

H332	Harmful if inhaled.
H340	May cause genetic defects.
H350	May cause cancer.
H360	May damage fertility or the unborn child.

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H371	May cause damage to organs.	
H373	May cause damage to organs through prolonged or repeated exposure.	
H410	Very toxic to aquatic life with long lasting effects.	

Hazard(s) not otherwise specified

Not Applicable

Precautionary statement(s) General

P101	If medical advice is needed, have product container or label at hand.	
P102	Keep out of reach of children.	

Precautionary statement(s) Prevention

P201	Obtain special instructions before use.	
P260	Do not breathe dust/fume/gas/mist/vapours/spray.	

Precautionary statement(s) Response

P308+P313	IF exposed or concerned: Get medical advice/attention.	
P309+P311	If exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.	

Precautionary statement(s) Storage

P405 Store locked up.

Precautionary statement(s) Disposal

P501 Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
57-55-6	1-5	propylene glycol
1317-70-0	5-15	titanium dioxide (anatase)
330-54-1	9.3	diuron
1332-58-7	6.2	kaolin
10605-21-7	5.58	carbendazim
55406-53-6	1.56	3-iodo-2-propynyl butyl carbamate

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4 FIRST-AID MEASURES

Description of first aid measures

Eye Contact	 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 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 contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	 If furnes 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. 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.
Ingestion	 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. 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.

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See Section 11

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

for diuron:

- Symptomatic and supportive action is indicated.
- Methaemoglobinaemia is possible
- if compound is hydrolysed in vivo to aniline.
- Methaemoglobinaemia causes cyanosis. Reversion of methaemoglobin to haemoglobin is spontaneous after removal from exposure, so moderate degrees of cyanosis need be treated only by
- supportive measures such as bed rest and oxygen inhalation.
- Thorough cleansing of the entire contaminated area of the body, including the scalp and nails is of the utmost importance.

The material may induce methaemoglobinaemia following exposure.

- Initial attention should be directed at oxygen delivery and assisted ventilation if necessary. Hyperbaric oxygen has not demonstrated substantial benefits.
- Hypotension should respond to Trendelenburg's position and intravenous fluids; otherwise dopamine may be needed.
- Symptomatic patients with methaemoglobin levels over 30% should receive methylene blue. (Cyanosis, alone, is not an indication for treatment). The usual dose is 1-2 mg/kg of a 1% solution (10 mg/ml) IV over 50 minutes; repeat, using the same dose, if symptoms of hypoxia fail to subside within 1 hour.
- Thorough cleansing of the entire contaminated area of the body, including the scalp and nails, is of utmost importance.
 - BIOLOGICAL EXPOSURE INDEX BEI

These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV):

Determinant	Index	Sampling Time	Comment
1. Methaemoglobin in blood	1.5% of haemoglobin	During or end of shift	B, NS, SQ
B: Background levels occur in specimens collected from subjects NOT exposed			
NO: Non appointe determinante also absorted after avecaure to other materials			

NS: Non-specific determinant; also observed after exposure to other materials

SQ: Semi-quantitative determinant - Interpretation may be ambiguous; should be used as a screening test or confirmatory test.

SECTION 5 FIRE-FIGHTING MEASURES

Extinguishing media

- Foam.
- 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

Special protective equipment and precautions for fire-fighters

Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus.
Fire/Explosion Hazard	 Combustible. Slight fire hazard when exposed to heat or flame. Combustion products include: carbon dioxide (CO2) nitrogen oxides (NOX) other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive 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	Environmental hazard - contain spillage. Remove all ignition sources. Clean up all spills immediately.
Major Spills	 Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Environmental hazard - contain spillage.

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	 Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. DO NOT allow clothing wet with material to stay in contact with skin
Other information	 Store in original containers. Keep containers securely sealed.

Suitable container	 Metal can or drum Packaging as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.
Storage incompatibility	 Titanium dioxide reacts with strong acids, strong oxidisers reacts violently with aluminium, calcium, hydrazine, lithium (at around 200 deg C.), magnesium, potassium, sodium, zinc, especially at elevated temperatures - these reactions involves reduction of the oxide and are accompanied by incandescence dust or powders can ignite and then explode in a carbon dioxide atmosphere Avoid reaction with oxidising agents

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US NIOSH Recommended Exposure Limits (RELs)	titanium dioxide (anatase)	Rutile, Titanium oxide, Titanium peroxide	Not Available	Not Available	Not Available	Ca See Appendix A
US ACGIH Threshold Limit Values (TLV)	titanium dioxide (anatase)	Titanium dioxide	10 mg/m3	Not Available	Not Available	TLV® Basis: LRT irr
US OSHA Permissible Exposure Levels (PELs) - Table Z1	titanium dioxide (anatase)	Titanium dioxide: Total dust	15 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	diuron	3-(3,4-Dichlorophenyl)-1,1-dimethylurea; Direx®; Karmex®	10 mg/m3	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	diuron	Diuron	10 mg/m3	Not Available	Not Available	TLV® Basis: URT irr
US NIOSH Recommended Exposure Limits (RELs)	kaolin	China clay, Clay, Hydrated aluminum silicate, Hydrite, Porcelain clay [Note: Main constituent of Kaolin is Kaolinite (Al2Si2O5(OH)4).]	10 (total), 5 (resp) mg/m3	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	kaolin	Kaolin	2 mg/m3	Not Available	Not Available	TLV® Basis: Pneumoconiosis
US OSHA Permissible Exposure Levels (PELs) - Table Z1	kaolin	Kaolin: Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Levels (PELs) - Table Z1	kaolin	Kaolin: Total dust	15 mg/m3	Not Available	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name Tf		-1	TEEL-2	TEEL-3	
propylene glycol	Polypropylene glycols	30 mg/m3		330 mg/m3	2,000 mg/m3	
propylene glycol	Propylene glycol; (1,2-Propanediol)	30 mg/m3		1,300 mg/m3	7,900 mg/m3	
titanium dioxide (anatase)	Titanium oxide; (Titanium dioxide)	30 mg	/m3	330 mg/m3	2,000 mg/m3	
3-iodo-2-propynyl butyl carbamate	Butyl-3-iodo-2-propynylcarbamate 3.3 mg/m3		g/m3	36 mg/m3	220 mg/m3	
Ingredient	Original IDLH		Revised IDLH			
propylene glycol	Not Available		Not Available			
titanium dioxide (anatase)	5000 mg/m3		Not Available			
diuron	Not Available		Not Available			
kaolin	Not Available		Not Available			
carbendazim	Not Available		Not Available			
3-iodo-2-propynyl butyl carbamate	Not Available		Not Available			

Exposure controls

Appropriate engineering controls	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.
Personal protection	
Eye and face protection	 Safety glasses with side shields. Chemical goggles.
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 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.
Body protection	See Other protection below

Other protection	 Employees working with confirmed human carcinogens should be provided with, and be required to wear, clean, full body protective clothing (smocks, coveralls, or long-sleeved shirt and pants), shoe covers and gloves prior to entering the regulated area. [AS/NZS ISO 6529:2006 or national equivalent] Employees engaged in handling operations involving carcinogens should be provided with, and required to wear and use half-face filter-type respirators with filters for dusts, mists and fumes, or air purifying cancisters or cartridges. Prior to each exit from an area containing confirmed human carcinogens, employees should be required to remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers must be identified with suitable labels. Overalls.
	 ▶ Overalls. ▶ P.V.C.

Respiratory protection

Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content. The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Not Available		
Physical state	Liquid	Relative density (Water = 1)	Not Available
Odour	Not Available	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 Available
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	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 (g/L)	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	 Unstable in the presence of incompatible materials. Product is considered stable.
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 harmful. The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation of vapours, fumes or aerosols, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress.
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual. The substance and/or its metabolites may bind to haemoglobin inhibiting normal uptake of oxygen. This condition, known as "methaemoglobinemia", is a form of oxygen starvation (anoxia). Dusts of titanium and titanium compounds are thought to exhibit little or no toxic effects. The acute toxicity of carbendazim is very low. In animal testing, carbendazim caused seizures, nosebleeds and excessive tear secretion, slowed breathing, tiredness, loss of abdominal muscle tone, discharge from the eyes and shrunken pupils prior to death.
Skin Contact	There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).

Chronic	Repeated or long-term occupational exposure is likely to prodi There is sufficient evidence to suggest that this material direct Based on experiments and other information, there is ample ev- inherited. Ample evidence exists from experimentation that reduced hum Chronic dust inhalation of kaolin, can cause kaolinosis from k and chronic lung diseases (nodular pneumoconiosis). This cor infection. Pre-employment screening is recommended. Chronic effects of exposure to diuron may include skin irritatio thyroid effects; red blood cell destruction, or reduction of the b Long term exposure to titanium and several of its compounds with right heart enlargements occur. Carbendazim is the major metabolite of benomyl and thiophan Carbendazin was administered by gavage for 5-days to mice = Benzimidazoles are shown to impair embryonic development a in the body may also cause cancer and genetic defects by inter-	uce cumulative health ty causes cancer in h vidence to presume th an fertility is directly of aolin deposition in the dition is made worse n, abnormal pigment lood's oxygen carryin produces lung scarr ate-methyl (TM). showed no effect on h and cause genetic at arfering with nucleic a	n effects involving organs numans. nat exposure to this mater aused by exposure to the e lungs causing distinct lu by long duration of occup ation, growth retardation, ng capacity causing bluish ing and chronic bronchitis poody weight gain, but tests poormalities (often errors i cids function.	or biochemical systems. ial can cause genetic defects that can be material. ing markings, abnormal inflation of air sacs, pational exposure and pre-existing chest blurring of vision, abnormal liver, spleen and a discolouration and breathlessness. b Breathing is impaired and cardiac changes as weight was reduced. In the number of chromosomes). Their activity	
Free-Coat Premium Exterior	ΤΟΧΙΟΙΤΥ	IRR	ITATION		
Paint Semi-Gloss White - 47100	Not Available	Not	Available		
		IR	RITATION		
propulano ducal	Dermal (rabbit) LD50: 11890 mg/kg ¹²	Ey	e (rabbit): 100 mg - mild		
propylene glycol	Oral (rat) LD50: 20000 mg/kg ^{L2}	Ey	e (rabbit): 500 mg/24h - n	nild	
		Sk	in(human): 104 mg/3d line	mild	
			(())		
	ΤΟΧΙΟΙΤΥ			IRRITATION	
titanium dioxide (anatase)	Inhelation (rat) C50: >2.28 mg/4 h ^[1]		Not Available		
	Oral (rat) LD50: >2000 mg/ka ^[1]				
	TOXICITY			IRRITATION	
diuron	dermal (rat) LD50: >5000 mo/ka ^[2]			Not Available	
	Oral (rat) LD50: 1017 mg/kg ^[2]				
	TOXICITY	IRR	ITATION		
kaolin	Not Available	Not	Available		
	ΤΟΧΙΟΙΤΥ		IRRITATION		
carbendazim	dermal (rat) LD50: 2000 mg/kg ^[2]		Eye (rabbit): non-irritat	ling *	
	Oral (rat) LD50: 6400 mg/kg ^[2]		Skin (rabbit): non-irrita	ting *	
	ΤΟΧΙΟΙΤΥ		IRI	RITATION	
3-iodo-2-propynyl butyl	dermal (rat) LD50: >2000 mg/kg ^[2]		Ey	ye: Irritating	
carbamate	Inhalation (rat) LC50: 0.680 mg/l/4h*g ^[2]		Sk	in: Slight irritant	
	Oral (rat) LD50: 1056 mg/kg ^[2]				
Legend:	 Value obtained from Europe ECHA Registered Substances data extracted from RTECS - Register of Toxic Effect of chem 	 Acute toxicity 2.* V ical Substances 	alue obtained from manu	facturer's SDS. Unless otherwise specified	
PROPYLENE GLYCOL	The acute oral toxicity of propylene glycol is very low; large an occurs only at blood concentrations over 1 g/L, which requires consuming foods or supplements which contain 1g/kg of PG a The material may cause skin irritation after prolonged or repeat scaling and thickening of the skin.	ounts are needed to extremely high intak t most. ted exposure and ma	cause perceptible health e over a relatively short p ay produce on contact ski	damage in humans. Serious toxicity generally eriod of time; this is nearly impossible with n redness, swelling, the production of vesicles,	
TITANIUM DIOXIDE (ANATASE)	Exposure to titanium dioxide is via inhalation, swallowing or sk	in contact. When inh	aled, it may deposit in lun	g tissue and lymph nodes causing dysfunction	
DIURON	Note: Equivocal animal tumorigenic agent by RTECS criteria.	NOTE: This substar	ice may contain impuritie	s (tetrachlorazobenzene and	
2.0.01	tetrachloroazoxybenzene). Maximum impurity levels are proscribed under various jurisdictions ADI: 0.006 mg/kg/day NOEL: 0.625 mg/kg/day				
KAOLIN	Bentonite (CAS No. 1302-78-9) consists of a group of clays formed by crystallization of vitreous volcanic ashes that were deposited in water. The expected acute oral toxicity of bentonite in humans is very low.				

CARBENDAZIM	Benomyl (a precursor of carbendazim) sensitises skin in humans. Benomyl and carbendazim represent a very low risk for acute poisoning in humans. [*The Pesticides Manual, Incorporating The Agrochemicals Handbook, 10th Edition, Editor Clive Tomlin, 1994, British Crop Protection Council] Intraperitoneal (Rat, adult male) LD50: 7320 mg/kg * Intraperitoneal (Rat, adult female) LD50: 15000 mg/kg * Inhalation LC50 (4 h) for rats, rabbits, guinea pigs or cats no effect with suspension (10 g/l water). * NOEL (2 y) for dogs 300 mg/kg diet, corresponding to 6-7 mg/kg b.w. ADI 0.01 mg/kg b.w. * Toxicity Class WHO III;EPA IV					
3-IODO-2-PROPYNYL BUTYL CARBAMATE	For 3-iodo-2-propynyl butyl carbamate (IPBC): Acute toxicity studies with IPBC show low toxicity except severe eye irritation. Animal testing showed that extended exposure may cause decreased weight gain and increased red cell and eosinophil counts.					
Fres-Coat Premium Exterior Paint Semi-Gloss White - 47100 & DIURON	Diuron is absorbed readily through the gut and lungs, while uptake through the skin is more limited. It is slightly toxic to mammals but juveniles are more susceptible than adults.					
DIURON & KAOLIN	No significant acute toxicological data identified in literatu	No significant acute toxicological data identified in literature search.				
Acute Toxicity	✓	Carcinogenicity	¥			
Skin Irritation/Corrosion	0	Reproductivity	✓			
Serious Eye Damage/Irritation	\otimes	STOT - Single Exposure	✓			
Respiratory or Skin sensitisation	\otimes	STOT - Repeated Exposure	*			
Mutagenicity	✓	Aspiration Hazard	0			
		Legend: 🗙 – D	Data available but does not fill the criteria for classification			

Data available to make classification
 Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Fres-Coat Premium Exterior	ENDPOINT	TEST DURATION	(HR)	SPECIES	VALUE		SOURCE	
Paint Semi-Gloss White - 47100	Not Available	Not Available		Not Available	Not Avai	ilable	Not Available	
	ENDPOINT	TEST DURATION (HF	TEST DURATION (HR) SPECIES			VALUE	SOURCE	
	LC50	96	Fish	Fish		710mg/L	4	
propylene glycol	EC50	48	Crus	stacea		>1000mg/L	. 4	
	EC50	96		Algae or other aquatic plants		19000mg/L	2	
	NOEC	168	Fish	I		98mg/L	4	
	ENDPOINT	TEST DURATION (HF	R) SPE	ECIES		VALUE	SOURCE	
	LC50	96	Fish	า		155mg/L	2	
titanium diavida (anatasa)	EC50	48	Cru	stacea		>10mg/L	2	
titanium dioxide (anatase)	EC50	72	Alga	ae or other aquatic plant	S	5.83mg/L	4	
	EC20	72	Alga	ae or other aquatic plant	S	1.81mg/L	4	
	NOEC	336	Fish	ı		0.089mg/L	. 4	
	ENDPOINT	TEST DURATION (HR) SPECI	SPECIES VAI		VALUE	SOURCE	
	LC50	96	Fish			0.5mg/L	4	
-11	EC50	48	Crusta	cea		1.4mg/L	1	
aiuron	EC50	72	Algae	or other aquatic plants		0.00055mg/L	4	
	BCF	792	Algae	or other aquatic plants		0.159mg/L	4	
	NOEC	336	Algae	Algae or other aquatic plants 0		0.0000005mg/L	1.0000005mg/L 4	
koolin	ENDPOINT	TEST DURATION	(HR)	SPECIES	VALUE		SOURCE	
Raoim	Not Available	Not Available		Not Available	Not Avai	ilable	Not Available	
						-		
	ENDPOINT	TEST DURATION (HR	R) SPEC	CIES		VALUE	SOURCE	
LC50 96 Fish			0.007mg/L	4				
carbendazim	EC50	48	Crust	Crustacea		0.02mg/L	4	
	EC50	96	Algae or other aquatic plants		19.0562mg/L 4			
	NOEC	480	Crust	acea		<0.0031mg/L	4	
3-iodo-2-propynyl butyl	ENDPOINT	TEST DURATION	N (HR)	SPECIES	VAL	.UE	SOURCE	
carbaniate	LC50	96		Fish	0.06	7mg/L	4	

	EC50	48	Crustacea	0.04mg/L	5
	NOEC	48	Crustacea	<0.01mg/L	4
Legend: Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.1					

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Bentonite and kaolin have low toxicity to aquatic species, a large number of which have been tested

For Diuron: Vapor pressure: 6.90 x10-8 mm Hg (25 C); Henry's law constant: 5.10 x 10-10 atm m3 mol-1.

Atmospheric Fate: Diuron is non-volatile in the atmosphere and is unlikely to be dispersed over large areas.

Carbendazim, a systemic benzimidazole fungicide that is used to control plant diseases, is of major concern due to its suspected hormone disrupting effects.

(Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Environmental Fate: Carbendazim is mainly degraded by microorganisms in the environment producing 2-aminobenzimidazole (2-AB) as its major degradation products which are further degraded by microorganisms.

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
propylene glycol	LOW	LOW
titanium dioxide (anatase)	HIGH	HIGH
diuron	HIGH	HIGH
carbendazim	HIGH	HIGH
3-iodo-2-propynyl butyl carbamate	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
propylene glycol	LOW (BCF = 1)
titanium dioxide (anatase)	LOW (BCF = 10)
diuron	LOW (BCF = 14)
carbendazim	LOW (BCF = 3.5)
3-iodo-2-propynyl butyl carbamate	LOW (LogKOW = 2.4542)

Mobility in soil

Ingredient	Mobility
propylene glycol	HIGH (KOC = 1)
titanium dioxide (anatase)	LOW (KOC = 23.74)
diuron	LOW (KOC = 136)
carbendazim	LOW (KOC = 175.8)
3-iodo-2-propynyl butyl carbamate	LOW (KOC = 365.3)

SECTION 13 DISPOSAL CONSIDERATIONS

Naste treatment methods				
Product / Packaging disposal	 Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible. Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. 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. Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Authority for disposal. 			

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant



Land transport (DOT): 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

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

J	PROPYLENE GLYCOL(57-55-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS	
	US - Pennsylvania - Hazardous Substance List	US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)
	US - Rhode Island Hazardous Substance List	US Spacecraft Maximum Allowable Concentrations (SMACs) for Airborne Contaminants
	US - Washington Toxic air pollutants and their ASIL, SQER and de minimis emission values	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
	US AIHA Workplace Environmental Exposure Levels (WEELs)	US TSCA Chemical Substance Inventory - Interim List of Active Substances
l	TITANIUM DIOXIDE (ANATASE)(1317-70-0) IS FOUND ON THE FOLLOWING REGULATOR	RY LISTS
	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC	US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants
	Monographs	US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air
	US - Alaska Limits for Air Contaminants	Contaminants
	US - California Proposition 65 - Carcinogens	US - Washington Permissible exposure limits of air contaminants
	US - Hawaii Air Contaminant Limits	US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants
	US - Idaho - Limits for Air Contaminants	US ACGIH Threshold Limit Values (TLV)
	US - Massachusetts - Right To Know Listed Chemicals	US ACGIH Threshold Limit Values (TLV) - Carcinogens
	US - Michigan Exposure Limits for Air Contaminants	US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive)
	US - Minnesota Permissible Exposure Limits (PELs)	Rule
	US - Oregon Permissible Exposure Limits (Z-1)	US NIOSH Recommended Exposure Limits (RELs)
	US - Pennsylvania - Hazardous Substance List	US OSHA Permissible Exposure Levels (PELs) - Table Z1
	US - Rhode Island Hazardous Substance List	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
	US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants	US TSCA Chemical Substance Inventory - Interim List of Active Substances
		US TSCA Section 12(b) - List of Chemical Substances Subject to Export Notification Requirements
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	US - Alaska Limits for Air Contaminants	US - Vermont Permissible Exposure Limits Table 2-1-A Final Rule Limits for Air Contaminants
	US - California Permissible Exposure Limits for Chemical Contaminants	US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air
	US - California Proposition 65 - Carcinogens	
	US - Hawaii Air Contaminant Limits	US - Washington Permissible exposure limits of air contaminants
	US - Massachusetts - Right To Know Listed Chemicals	US ACGIH Threshold Limit Values (TLV)
	US - Michigan Exposure Limits for Air Contaminants	US ACGIH Threshold Limit Values (TLV) - Carcinogens
	US - Minnesota Permissible Exposure Limits (PELs)	US CWA (Clean Water Act) - List of Hazardous Substances
	US - Pennsylvania - Hazardous Substance List	US EPCRA Section 313 Chemical List
	US - Rhode Island Hazardous Substance List	US NIOSH Recommended Exposure Limits (RELs)
	US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
		US TSCA Chemical Substance Inventory - Interim List of Active Substances
ļ	KAOLIN(1332-58-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS	
	US - Alaska Limits for Air Contaminants	US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air
	US - California Permissible Exposure Limits for Chemical Contaminants	Contaminants
	US - Hawaii Air Contaminant Limits	US - Washington Permissible exposure limits of air contaminants
	US - Idaho - Limits for Air Contaminants	US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants
	US - Minnesota Permissible Exposure Limits (PELs)	US ACGIH Threshold Limit Values (TLV)
	US - Oregon Permissible Exposure Limits (Z-1)	US ACGIH Threshold Limit Values (TLV) - Carcinogens
	US - Pennsylvania - Hazardous Substance List	US NIOSH Recommended Exposure Limits (RELs)
	US - Rhode Island Hazardous Substance List	US OSHA Permissible Exposure Levels (PELs) - Table Z1
	US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
	US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants	US TSCA Chemical Substance Inventory - Interim List of Active Substances
j	CARBENDAZIM(10605-21-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS	
Ĩ	US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive)	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
	Rule	

3-IODO-2-PROPYNYL BUTYL CARBAMATE(55406-53-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US EPCRA Section 313 Chemical List

US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule

Federal Regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SECTION 311/312 HAZARD CATEGORIES

Flammable (Gases, Aerosols, Liquids, or Solids)	No
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No
Corrosive to metal	No

Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	Yes
Acute toxicity (any route of exposure)	Yes
Reproductive toxicity	Yes
Skin Corrosion or Irritation	No
Respiratory or Skin Sensitization	No
Serious eye damage or eye irritation	No
Specific target organ toxicity (single or repeated exposure)	Yes
Aspiration Hazard	No
Germ cell mutagenicity	Yes
Simple Asphyxiant	No

US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CFR 302.4)

Name	Reportable Quantity in Pounds (lb)	Reportable Quantity in kg
Diuron	100	45.4
Carbamic acid, 1H-benzimidazol-2-yl, methyl ester	10	4.54

State Regulations

US. CALIFORNIA PROPOSITION 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm

US - CALIFORNIA PROPOSITION 65 - CARCINOGENS & REPRODUCTIVE TOXICITY (CRT): LISTED SUBSTANCE

Titanium dioxide (airborne, unbound particles of respirable size), Diuron Listed

National Inventory Status

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Υ
Canada - NDSL	N (3-iodo-2-propynyl butyl carbamate; kaolin; propylene glycol; diuron; carbendazim)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Υ
Japan - ENCS	N (kaolin)
Korea - KECI	Υ
New Zealand - NZIoC	Υ
Philippines - PICCS	Y
USA - TSCA	Υ
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Revision Date	07/16/2018
Initial Date	07/16/2018

CONTACT POINT

PLEASE NOTE THAT TITANIUM DIOXIDE IS NOT PRESENT IN CLEAR OR NEUTRAL BASES

Other information

Ingredients with multiple cas numbers

Name	CAS No
titanium dioxide (anatase)	1317-70-0, 13463-67-7
kaolin	1332-58-7, 71888-52-3, 1026990-70-4, 12198-85-5, 12199-11-0, 190086-05-6, 290817-34-4, 384842-32-4, 39406-22-9, 52624-41-6, 849104-81-0, 903527-69-5, 90803-81-9, 944250-63-9, 95077-05-7

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.

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 LOAEL: Lowest Observed Adverse Effect Level LODE Limit of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index

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