

Pref. INT/EXT (EG)-Deep Base 41993

ICP Construction

Version No: **1.2**Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: **02/07/2017** Print Date: **02/07/2017** S.GHS.USA.EN

SECTION 1 IDENTIFICATION

Product Identifier

Product name	Pref. INT/EXT (EG)-Deep Base 41993
Synonyms	Not Available
Other means of identification	Not Available

Recommended use of the chemical and restrictions on use

Relevant identified uses Interior wallboard, sheetrock, wood, concrete, primed metal, primed galvanized metal, masonry block

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	ICP Construction
Address	150 Dascomb Road Massachusetts Andover United States
Telephone	978-623-9980
Fax	Not Available
Website	Not Available
Email	Not Available

Emergency phone number

goo, p	
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

Classification

Skin Sensitizer Category 1, Eye Irritation Category 2A, Carcinogenicity Category 1A, Acute Aquatic Hazard Category 3, Specific target organ toxicity repeated exposure Category 1

Label elements

GHS label elements





SIGNAL WORD

DANGER

Hazard statement(s)

H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H350	May cause cancer.
H402	Harmful to aquatic life
H372	Causes damage to organs through prolonged or repeated exposure.

Hazard(s) not otherwise specified

Not Applicable

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P201	Obtain special instructions before use.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statement(s) Response	
P308+P313	IF exposed or concerned: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.

Precautionary statement(s) Storage

P302+P352

P405	Store locked up

Precautionary statement(s) Disposal

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

IF ON SKIN: Wash with plenty of soap and water.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
13463-67-7	10-30	titanium dioxide
107-21-1	1-5	ethylene glycol
26172-55-4	0.1-1	5-chloro-2-methyl-4-isothiazolin-3-one
1317-65-3	10-30	calcium carbonate

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, without delay.
Ingestion	 Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

For acute or short term repeated exposures to ethylene glycol:

- ▶ Early treatment of ingestion is important. Ensure emesis is satisfactory.
- Test and correct for metabolic acidosis and hypocalcaemia.
- Apply sustained diuresis when possible with hypertonic mannitol
- Evaluate renal status and begin haemodialysis if indicated. [I.L.O]
- Rapid absorption is an indication that emesis or lavage is effective only in the first few hours. Cathartics and charcoal are generally not effective.
- Correct acidosis, fluid/electrolyte balance and respiratory depression in the usual manner. Systemic acidosis (below 7.2) can be treated with intravenous sodium bicarbonate solution.
- Ethanol therapy prolongs the half-life of ethylene glycol and reduces the formation of toxic metabolites.
- Pyridoxine and thiamine are cofactors for ethylene glycol metabolism and should be given (50 to 100 mg respectively) intramuscularly, four times per day for 2 days.
- Magnesium is also a cofactor and should be replenished. The status of 4-methylpyrazole, in the treatment regime, is still uncertain. For clearance of the material and its metabolites, haemodialysis is much superior to peritoneal dialysis.

[Ellenhorn and Barceloux: Medical Toxicology]

It has been suggested that there is a need for establishing a new biological exposure limit before a workshift that is clearly below 100 mmol ethoxy-acetic acids per mole creatinine in morning urine of people occupationally exposed to ethylene glycol ethers. This arises from the finding that an increase in urinary stones may be associated with such exposures. Laitinen J., et al: Occupational & Environmental Medicine 1996; 53, 595-600

SECTION 5 FIRE-FIGHTING MEASURES

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Extinguishing media

- ▶ There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

Special hazards arising from the substrate or mixture

Fire Incompatibility None known.

1 ii c iii compatibility	, Note to the second se	
Special protective equipme	ent and precautions for fire-fighters	
Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses. Use fire fighting procedures suitable for surrounding 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	 Non combustible. Not considered a significant fire risk, however containers may burn. May emit poisonous furnes. May emit corrosive furnes. 	

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 breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up. Place in a suitable, labelled container for waste disposal. 	
Major Spills	 Absorb or contain isothiazolinone liquid spills with sand, earth, inert material or vermiculite. The absorbent (and surface soil to a depth sufficient to remove all of the biocide) should be shovelled into a drum and treated with an 11% solution of sodium metabisulfite (Na2S2O5) or sodium bisulfite (NaHSO3), or 12% sodium sulfite (Na2SO3) and 8% hydrochloric acid (HCI). Glutathione has also been used to inactivate the isothiazolinones. Use 20 volumes of decontaminating solution for each volume of biocide, and let containers stand for at least 30 minutes to deactivate microbicide before disposal. If contamination of drains or waterways occurs, advise emergency services. After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using. 	

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. Use in a well-ventilated area. Avoid contact with moisture. Avoid contact with incompatible materials. 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. DO NOT allow clothing wet with material to stay in contact with skin 	
Other information		

Conditions for safe storage, including any incompatibilities	
Suitable container	 Polyethylene or polypropylene container. Packing as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.
Storage incompatibility	Calcium carbonate: • is incompatible with acids, ammonium salts, fluorine, germanium, lead diacetate, magnesium, mercurous chloride, silicon, silver nitrate, titanium. Contact with acid generates carbon dioxide gas, which may pressurise and then rupture closed containers

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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
- ▶ WARNING: Avoid or control reaction with peroxides. All transition metal peroxides should be considered as potentially explosive. For example transition metal complexes of alkyl hydroperoxides may decompose explosively.
- The pi-complexes formed between chromium(0), vanadium(0) and other transition metals (haloarene-metal complexes) and mono-or poly-fluorobenzene show extreme sensitivity to heat and are explosive
- Avoid reaction with borohydrides or cyanoborohydrides
- ▶ Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Levels (PELs) - Table Z1	titanium dioxide	Titanium dioxide	15 mg/m3	Not Available	Not Available	Total dust
US ACGIH Threshold Limit Values (TLV)	titanium dioxide	Titanium dioxide	10 mg/m3	Not Available	Not Available	TLV® Basis: LRT irr
US NIOSH Recommended Exposure Limits (RELs)	titanium dioxide	Rutile, Titanium oxide, Titanium peroxide	Not Available	Not Available	Not Available	Ca See Appendix A
US ACGIH Threshold Limit Values (TLV)	ethylene glycol	‡ Ethylene glycol	Not Available	Not Available	100 mg/m3	TLV® Basis: URT & eye irr
US NIOSH Recommended Exposure Limits (RELs)	ethylene glycol	1,2-Dihydroxyethane; 1,2-Ethanediol; Glycol; Glycol alcohol; Monoethylene glycol	Not Available	Not Available	Not Available	See Appendix D
US OSHA Permissible Exposure Levels (PELs) - Table Z1	calcium carbonate	Calcium carbonate / Calcium carbonate - Respirable fraction	15 mg/m3 / 5 mg/m3	Not Available	Not Available	Total dust
US NIOSH Recommended Exposure Limits (RELs)	calcium carbonate	Calcium carbonate, Natural calcium carbonate [Note: Calcite & aragonite are commercially important natural calcium carbonates.] / Calcium carbonate, Natural calcium carbonate [Note: Marble is a metamorphic form of calcium carbonate.]	10 (total), 5 (resp) mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	calcium carbonate	Calcium salt of carbonic acid [Note: Occurs in nature as as limestone, chalk, marble, dolomite, aragonite, calcite and oyster shells.]	10 (total), 5 (resp) mg/m3	Not Available	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
titanium dioxide	Titanium oxide; (Titanium dioxide)	30 mg/m3	330 mg/m3	2,000 mg/m3
ethylene glycol	Ethylene glycol	30 ppm	40 ppm	60 ppm
5-chloro-2-methyl- 4-isothiazolin-3-one	Chloro-2-methyl-4-isothiazolin-3-one, 5-	0.6 mg/m3	6.6 mg/m3	40 mg/m3
calcium carbonate	Limestone; (Calcium carbonate; Dolomite)	45 mg/m3	500 mg/m3	3,000 mg/m3
calcium carbonate	Carbonic acid, calcium salt	45 mg/m3	210 mg/m3	1,300 mg/m3

Ingredient	Original IDLH	Revised IDLH
titanium dioxide	N.E. mg/m3 / N.E. ppm	5,000 mg/m3
ethylene glycol	Not Available	Not Available
5-chloro-2-methyl- 4-isothiazolin-3-one	Not Available	Not Available
calcium carbonate	Not Available	Not Available

Exposure 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. 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. Appropriate engineering

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.

Air Speed: Type of Contaminant:

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solvent, vapours, degreasing etc., evaporating from tank (in still air).

aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)

direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)

grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).

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









- ► Safety glasses with side shields
- Chemical goggles.

Eye and face protection

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

- ▶ 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.

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

The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.

Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:

- frequency and duration of contact,
- chemical resistance of glove material,
- glove thickness and
- dexterity

Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).

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

For general applications, gloves with a thickness typically greater than $0.35\,\mathrm{mm}$, are recommended.

It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.

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

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

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

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

- Butyl rubber gloves
- Nitrile rubber gloves

Body protection

Hands/feet protection

rotection See Other protection below

Other protection

- Overalls.P.V.C. apron.
- ▶ Barrier cream.

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	 ▶ Skin cleansing cream. ▶ Eye wash unit.
Thermal hazards	Not Available

Respiratory protection

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

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

	T		
Appearance	Text		
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)	8.5	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. 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	The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. The material has NOT been classified by EC Directives or other classification systems as "harmful by inhalation". This is because of the lack of corroborating animal or human evidence.	
Ingestion	The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. Taken by mouth, isothiazolinones have moderate to high toxicity. The major signs of toxicity are severe stomach irritation, lethargy, and inco-ordination. Dusts of titanium and titanium compounds are thought to exhibit little or no toxic effects.	
Skin Contact	The liquid may be miscible with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives. Solutions of isothiazolinones may be irritating or even damaging to the skin, depending on concentration. A concentration of over 0.1% can irritate, and over 0.5% can cause severe irritation. 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	This material can cause eye irritation and damage in some persons. Solutions containing isothiazolinones may damage the mucous membranes and comea. Animal testing showed very low concentrations (under 0.1%) did not cause irritation, while higher levels (3-5.5%) produced severe irritation and damage to the eye.	
Chronic	Studies show that inhaling this substance for over a long period (e.g. in an occupational setting) may increase the risk of cancer. Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.	

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Toxic: danger of serious damage to health by prolonged exposure through inhalation.

This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.

Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

The isothiazolinones are known contact sensitisers. Sensitisation is more likely with the chlorinated species as opposed to the non-chlorinated species.

There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment.

Long term exposure to titanium and several of its compounds produces lung scarring and chronic bronchitis. Breathing is impaired and cardiac changes with right heart enlargements occur.

	right heart enlargements occur.			
	TOXICITY	IDD	NTATION	
Pref. INT/EXT (EG)-Deep Base 41993			IRRITATION Not Available	
	Not Available	INOL	Available	
	TOXICITY	10	RRITATION	
	Inhalation (rat) LC50: >2.28 mg/l/4hr ^[1]		kin (human): 0.3 mg /3D (int)-mild *	
	Inhalation (rat) LC50: >2.26 mg//4hr ⁻¹		Kiri (numari). 0.0 mg /ob (m) mila	
disantum dianida	Inhalation (rat) LC50: >3.56 mg//4hr ^[1]			
titanium dioxide				
	Inhalation (rat) LC50: 3.43 mg/l/4hr ^[1]			
	Inhalation (rat) LC50: 5.09 mg//4hr ^[1]	+		
	Oral (rat) LD50: >2000 mg/kg ^[1]			
	TOXICITY		IRRITATION	
	Dermal (rabbit) LD50: 9530 mg/kg ^[2]		Eye (rabbit): 100 mg/1h - mild	
ethylene glycol	Inhalation (rat) LC50: 50.1 mg/L/8 hr. ^[2]		Eye (rabbit): 12 mg/m3/3D	
	Oral (rat) LD50: 4700 mg/kg ^[2]		Eye (rabbit): 1440mg/6h-moderate	
			Eye (rabbit): 500 mg/24h - mild Skin (rabbit): 555 mg(open)-mild	
			Skill (rabbit). 355 Hig(open)-illiid	
	TOXICITY	IDD	RITATION	
5-chloro-2-methyl- 4-isothiazolin-3-one	Not Available		Available	
	Tital Manage	1.101	,	
	TOXICITY	IRRIT	TATION	
calcium carbonate			rabbit): 0.75 mg/24h - SEVERE	
Saloiani sai sonato	ru)		(rabbit): 500 mg/24h-moderate	
	o.a. (a.) 2500 / 2000 iliging			
Legend:	Value obtained from Europe ECHA Registered Substances - Acute toxicity 2	2.* Val	ue obtained from manufacturer's SDS. Unless otherwise specified data	
	extracted from RTECS - Register of Toxic Effect of chemical Substances			
	The material may produce moderate eye irritation leading to inflammation. Rep Exposure to titanium dioxide is via inhalation, swallowing or skin contact. Wher			
TITANIUM DIOXIDE	the lungs and immune system. Absorption by the stomach and intestines depends on the size of the particle.			
	WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.			
	* IUCLID For ethylene glycol:			
ETHYLENE GLYCOL	Ethylene glycol is quickly and extensively absorbed through the gastrointesting		55	
	respiratory tract; dermal absorption is apparently slow. Following absorption, e [Estimated Lethal Dose (human) 100 ml; RTECS quoted by Orica] Substance		• • • • • • • • • • • • • • • • • • • •	
	The following information refers to contact allergens as a group and may not be			
E CUI ODO 2 METUVI	Contact allergies quickly manifest themselves as contact eczema, more rarely a cell-mediated (T lymphocytes) immune reaction of the delayed type.	as urti	caria or Quincke's oedema. The pathogenesis of contact eczema involves	
5-CHLORO-2-METHYL- 4-ISOTHIAZOLIN-3-ONE	No significant acute toxicological data identified in literature search. The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.			
	NOTE: Substance has been shown to be mutagenic in at least one assay, or be	elongs	to a family of chemicals producing damage or change to cellular DNA.	
	Considered to be the major sensitiser in Kathon CG (1) (1). Bruze etal - Conta The material may produce severe irritation to the eye causing pronounced infla		<u>'</u>	
CALCIUM CARBONATE	conjunctivitis.			
TITANIUM DIOXIDE &	No evidence of carcinogenic properties. No evidence of mutagenic or teratoge	enic eff	rects.	
5-CHLORO-2-METHYL-	The material may cause skin irritation after prolonged or repeated exposure an	d may	produce on contact skin redness, swelling, the production of vesicles,	
4-ISOTHIAZOLIN-3-ONE & CALCIUM CARBONATE	scaling and thickening of the skin.			
5-CHLORO-2-METHYL- 4-ISOTHIAZOLIN-3-ONE &	Asthma-like symptoms may continue for months or even years after exposure to reactive airways dysfunction syndrome (RADS) which can occur following exp		· · · · · · · · · · · · · · · · · · ·	
CALCIUM CARBONATE	of RADS include the absence of preceding respiratory disease, in a non-atopic	individ	dual, with abrupt onset of persistent asthma-like symptoms within minutes	

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	to hours of a documented exposure to the irritant.		
Acute Toxicity	0	Carcinogenicity	~
Skin Irritation/Corrosion	0	Reproductivity	0
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	0
Respiratory or Skin sensitisation	✓	STOT - Repeated Exposure	✓
Mutagenicity	0	Aspiration Hazard	0

Legend:

🗶 – Data available but does not fill the criteria for classification

Data available to make classification

O – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
titanium dioxide	LC50	96	Fish	9.214mg/L	3
titanium dioxide	EC50	48	Crustacea	>10mg/L	2
titanium dioxide	EC50	72	Algae or other aquatic plants	5.83mg/L	4
titanium dioxide	EC20	72	Algae or other aquatic plants	1.81mg/L	4
titanium dioxide	NOEC	336	Fish	0.089mg/L	4
ethylene glycol	LC50	96	Fish	2284.940mg/L	3
ethylene glycol	EC50	48	Crustacea	5046.29mg/L	5
ethylene glycol	EC50	96	Algae or other aquatic plants	6500-13000mg/L	1
ethylene glycol	EC50	Not Applicable	Crustacea	=10mg/L	1
ethylene glycol	NOEC	552	Crustacea	>=1000mg/L	2
5-chloro-2-methyl- 4-isothiazolin-3-one	LC50	96	Fish	0.19mg/L	4
5-chloro-2-methyl- 4-isothiazolin-3-one	EC50	48	Crustacea	0.028mg/L	4
5-chloro-2-methyl- 4-isothiazolin-3-one	EC50	72	Algae or other aquatic plants	0.021mg/L	4
5-chloro-2-methyl- 4-isothiazolin-3-one	EC50	120	Algae or other aquatic plants	0.022mg/L	4
5-chloro-2-methyl- 4-isothiazolin-3-one	NOEC	504	Crustacea	0.172mg/L	1
calcium carbonate	LC50	96	Fish	>56000mg/L	4
calcium carbonate	EC50	72	Algae or other aquatic plants	>14mg/L	2
calcium carbonate	NOEC	72	Algae or other aquatic plants	14mg/L	2
Legend:	Aquatic Toxicity D		CHA Registered Substances - Ecotoxicologica c database - Aquatic Toxicity Data 5. ECETOC ration Data 8. Vendor Data		

Harmful to aquatic organisms.

Environmental Fate: Isothiazolinones are antimicrobials used to control bacteria, fungi, and for wood preservation and antifouling agents. They are frequently used in personal care products such as shampoos and other hair care products, as well as certain paint formulations. The most common isothiazolinone combinations are 5-chloro-2-methyl-4-isothiazolin-3-one, (CMI), and 2-methyl-4-isothiazolin-3-one, (CMI), and (CMI), and (CMI), 4-isothiazolin-3-one, (MI).

Aquatic Fate: 5-chloro-2-methyl-4-isothiazolin-3-one, (CMI), and 2-methyl-4-isothiazolin-3-one, (MII), undergo primary biological breakdown with half-lives of less than 24 hours in both oxygenated and low oxygen sediments with >55% breakdown occurring within 29 days.

Ecotoxicity: The isothiazolinones are very toxic to marine organisms, (fish, Daphnia magna water fleas, and algae), and have low potential for accumulation in aquatic species. The proposed metabolites of MI and CMI are considered to have a low aquatic toxicity, based partially on data for the structurally related N-(n-octyl) malonamic acid.

DO NOT discharge into sewer or waterways

Persistence and degradability

· · · · · · · · · · · · · · · · · · ·				
Ingredient	Persistence: Water/Soil	Persistence: Air		
titanium dioxide	HIGH	HIGH		
ethylene glycol	LOW (Half-life = 24 days)	LOW (Half-life = 3.46 days)		
5-chloro-2-methyl- 4-isothiazolin-3-one	HIGH	HIGH		

Bioaccumulative potential

Ingredient	Bioaccumulation
titanium dioxide	LOW (BCF = 10)
ethylene glycol	LOW (BCF = 200)
5-chloro-2-methyl- 4-isothiazolin-3-one	LOW (LogKOW = 0.0444)

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Mobility in soil

Ingredient	Mobility
titanium dioxide	LOW (KOC = 23.74)
ethylene glycol	HIGH (KOC = 1)
5-chloro-2-methyl- 4-isothiazolin-3-one	LOW (KOC = 45.15)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging

disposal

- ▶ Containers may still present a chemical hazard/ danger when empty.
- Return to supplier for reuse/ recycling if possible.

Otherwise:

- ▶ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.
- ▶ Where possible retain label warnings and SDS and observe all notices pertaining to the product.

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction
- ▶ Reuse
- Recycling
- ► Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.

- ▶ DO NOT allow wash water from cleaning or process equipment to enter dra
- It may be necessary to collect all wash water for treatment before disposal.
- ▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or incineration in a licenced apparatus (after admixture with suitable combustible material).
- ▶ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant NO

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

TITANIUM DIOXIDE(13463-67-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS International Agency for Research on Cancer (IARC) - Agents Classified by the IARC US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants Monographs US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants 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 - 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 NIOSH Recommended Exposure Limits (RELs) US - Minnesota Permissible Exposure Limits (PELs) US OSHA Permissible Exposure Levels (PELs) - Table Z1 US - Oregon Permissible Exposure Limits (Z-1) US Priority List for the Development of Proposition 65 Safe Harbor Levels - No Significant Risk Levels (NSRLs) for Carcinogens and Maximum Allowable Dose Levels (MADLs) for US - Pennsylvania - Hazardous Substance List Chemicals Causing Reproductive Toxicity US - Rhode Island Hazardous Substance List ${\tt US\ Toxic\ Substances\ Control\ Act\ (TSCA)-Chemical\ Substance\ Inventory}$

ETHYLENE GLYCOL(107-21-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS

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US - Alaska Limits for Air Contaminants US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air US - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs Contaminants (CRELs) US - Washington Permissible exposure limits of air contaminants US - California Permissible Exposure Limits for Chemical Contaminants US - Washington Toxic air pollutants and their ASIL, SQER and de minimis emission values US - California Proposition 65 - Reproductive Toxicity US ACGIH Threshold Limit Values (TLV) US ACGIH Threshold Limit Values (TLV) - Carcinogens US - Hawaii Air Contaminant Limits US - Massachusetts - Right To Know Listed Chemicals US ACGIH Threshold Limit Values (TLV) - Notice of Intended Changes US - Michigan Exposure Limits for Air Contaminants US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs) US - Minnesota Permissible Exposure Limits (PELs) US Clean Air Act - Hazardous Air Pollutants US EPCRA Section 313 Chemical List US - Oregon Permissible Exposure Limits (Z-1) US NIOSH Recommended Exposure Limits (RELs) US - Pennsylvania - Hazardous Substance List US - Rhode Island Hazardous Substance List US Spacecraft Maximum Allowable Concentrations (SMACs) for Airborne Contaminants 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

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE(26172-55-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory US TSCA Section 5(a)(2) - Significant New Use Rules (SNURs)

CALCIUM CARBONATE(1317-65-3) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - Alaska Limits for Air Contaminants	US - Rhode Island Hazardous Substance List
US - California Permissible Exposure Limits for Chemical Contaminants	US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants
US - Hawaii Air Contaminant Limits	US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants
US - Idaho - Limits for Air Contaminants	US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air
US - Massachusetts - Right To Know Listed Chemicals	Contaminants
US - Michigan Exposure Limits for Air Contaminants	US - Washington Permissible exposure limits of air contaminants
US - Minnesota Permissible Exposure Limits (PELs)	US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants
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 Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

Federal Regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SECTION 311/312 HAZARD CATEGORIES

Immediate (acute) health hazard	Yes
Delayed (chronic) health hazard	Yes
Fire hazard	No
Pressure hazard	No
Reactivity hazard	No

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

Name	Reportable Quantity in Pounds (lb)	Reportable Quantity in kg
Ethylene glycol	5000	2270

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 PREPOSITION 65 - CARCINOGENS & REPRODUCTIVE TOXICITY (CRT): LISTED SUBSTANCE

Titanium dioxide (airborne, unbound particles of respirable size), Ethylene glycol (ingested) Listed

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (5-chloro-2-methyl-4-isothiazolin-3-one; ethylene glycol)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	Y
Korea - KECI	Y
New Zealand - NZIoC	Y
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

CONTACT POINT

^{**}PLEASE NOTE THAT TITANIUM DIOXIDE IS NOT PRESENT IN CLEAR OR NEUTRAL BASES**

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Other information

Ingredients with multiple cas numbers

Name	CAS No
titanium dioxide	13463-67-7, 1317-70-0, 1317-80-2, 12188-41-9, 1309-63-3, 100292-32-8, 101239-53-6, 116788-85-3, 12000-59-8, 12701-76-7, 12767-65-6, 12789-63-8, 1344-29-2, 185323-71-1, 185828-91-5, 188357-76-8, 188357-79-1, 195740-11-5, 221548-98-7, 224963-00-2, 246178-32-5, 252962-41-7, 37230-92-5, 37230-94-7, 37230-95-8, 37230-96-9, 39320-58-6, 39360-64-0, 39379-02-7, 416845-43-7, 494848-07-6, 494848-23-6, 494851-77-3, 494851-98-8, 55068-84-3, 55068-85-4, 552316-51-5, 62338-64-1, 767341-00-4, 97929-50-5, 98084-96-9
calcium carbonate	471-34-1, 13397-26-7, 15634-14-7, 1317-65-3, 72608-12-9, 878759-26-3, 63660-97-9, 459411-10-0, 198352-33-9, 146358-95-4

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

 ${\sf PC-STEL} : {\sf Permissible Concentration-Short Term Exposure Limit}$

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit。

IDLH: Immediately Dangerous to Life or Health Concentrations

OSF: Odour Safety Factor

NOAEL :No Observed Adverse Effect Level

LOAEL: Lowest Observed Adverse Effect Level

TLV: Threshold Limit Value

LOD: Limit Of Detection

OTV: Odour Threshold Value

BCF: BioConcentration Factors

BEI: Biological Exposure Index

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TEL (+61 3) 9572 4700.