# Dentsply (Australia) Pty Ltd

Chemwatch Hazard Alert Code: 2

Issue Date: 01/01/2013

Print Date: 09/01/2017

S.GHS.AUS.EN

Chemwatch: **4620-72** Version No: **3.1.1.1** 

Safety Data Sheet according to WHS and ADG requirements

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

#### **Product Identifier**

Product name	Dentsply Green Hi Shine
Synonyms	Green Hi Shine
Other means of identification	Not Available

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

Relevant identified uses Dental polishing material.

### Details of the supplier of the safety data sheet

Registered company name	Dentsply (Australia) Pty Ltd
Address	11-21 Gilby Road Mount Waverley VIC 3149 Australia
Telephone	1300 55 29 29
Fax	+61 3 9538 8260
Website	www.dentsply.com.au
Email	clientservices@dentsply.com

### Emergency telephone number

Association / Organisation	Poisons Information Centre (AUSTRALIA)
Emergency telephone numbers	13 11 26 - AUSTRALIA (24 hour service)
Other emergency telephone numbers	Not Available

### **SECTION 2 HAZARDS IDENTIFICATION**

### Classification of the substance or mixture

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

### CHEMWATCH HAZARD RATINGS

Label elements

	Min	Max	
Flammability	1		
Toxicity	2		0 = Minimum
Body Contact	2		1 = Low 2 = Moderate
Reactivity	1		3 = High
Chronic	2		4 = Extreme

Poisons Schedule	Not Applicable
Classification	Not Applicable

GHS label elements	Not Applicable
SIGNAL WORD	NOT APPLICABLE
Hazard statement(s)	
Not Applicable Precautionary statement(s)	) Prevention
Not Applicable	
Precautionary statement(s)	) Response
Not Applicable Precautionary statement(s)	Storago
Not Applicable	, Storage
Precautionary statement(s)	) Disposal

#### Not Applicable

### **SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**

### Substances

See section below for composition of Mixtures

#### Mixtures

CAS No	%[weight]	Name
1344-28-1.	>65	calcined alumina
57-11-4	<25	stearic acid
1308-38-9	<1	C.I. Pigment Green 17

### **SECTION 4 FIRST AID MEASURES**

#### Description of first aid measures

Eye Contact	<ul> <li>If this product comes in contact with the eyes:</li> <li>Wash out immediately with fresh running water.</li> <li>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.</li> <li>Seek medical attention without delay; if pain persists or recurs seek medical attention.</li> <li>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
Skin Contact	<ul> <li>If skin contact occurs:</li> <li>Immediately remove all contaminated clothing, including footwear.</li> <li>Flush skin and hair with running water (and soap if available).</li> <li>Seek medical attention in event of irritation.</li> </ul>
Inhalation	<ul> <li>If furnes or combustion products are inhaled remove from contaminated area.</li> <li>Lay patient down. Keep warm and rested.</li> <li>Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>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.</li> <li>Transport to hospital, or doctor.</li> <li>If dust is inhaled, remove from contaminated area.</li> <li>Encourage patient to blow nose to ensure clear breathing passages.</li> <li>Ask patient to rinse mouth with water but to not drink water.</li> <li>Seek immediate medical attention.</li> </ul>
Ingestion	<ul> <li>If swallowed do NOT induce vomiting.</li> <li>If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>Observe the patient carefully.</li> <li>Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>Seek medical advice.</li> </ul>

### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

- > Manifestation of aluminium toxicity include hypercalcaemia, anaemia, Vitamin D refractory osteodystrophy and a progressive encephalopathy (mixed dysarthria-apraxia of speech, asterixis, tremulousness, myoclonus, dementia, focal seizures). Bone pain, pathological fractures and proximal myopathy can occur.
- > Symptoms usually develop insidiously over months to years (in chronic renal failure patients) unless dietary aluminium loads are excessive.
- Serum aluminium levels above 60 ug/ml indicate increased absorption. Potential toxicity occurs above 100 ug/ml and clinical symptoms are present when levels exceed 200 ug/ml.
- > Deferoxamine has been used to treat dialysis encephalopathy and osteomalacia. CaNa2EDTA is less effective in chelating aluminium.

#### [Ellenhorn and Barceloux: Medical Toxicology]

Copper, magnesium, aluminium, antimony, iron, manganese, nickel, zinc (and their compounds) in welding, brazing, galvanising or smelting operations all give rise to thermally produced particulates of smaller dimension than may be produced if the metals are divided mechanically. Where insufficient ventilation or respiratory protection is available these particulates may produce "metal fume fever" in workers from an acute or long term exposure.

Onset occurs in 4-6 hours generally on the evening following exposure. Tolerance develops in workers but may be lost over the weekend. (Monday Morning Fever)

- Pulmonary function tests may indicate reduced lung volumes, small airway obstruction and decreased carbon monoxide diffusing capacity but these abnormalities resolve after several months.
- Although mildly elevated urinary levels of heavy metal may occur they do not correlate with clinical effects.
- The general approach to treatment is recognition of the disease, supportive care and prevention of exposure.
- Seriously symptomatic patients should receive chest x-rays, have arterial blood gases determined and be observed for the development of tracheobronchitis and pulmonary edema.

[Ellenhorn and Barceloux: Medical Toxicology]

### SECTION 5 FIREFIGHTING MEASURES

#### Extinguishing media

DO NOT use halogenated fire extinguishing agents.

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.

### 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

Fire Fighting
---------------

Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves.

HAZCHEM	May emit poisonous fumes. May emit corrosive fumes. Not Applicable
	, other pyrolysis products typical of burning organic material. When aluminium oxide dust is dispersed in air, firefighters should wear protection against inhalation of dust particles, which can also contain hazardous substances from the fire absorbed on the alumina particles.
	, acrolein
Fire/Explosion Hazard	, carbon dioxide (CO2)
	, carbon monoxide (CO)
	Combustion products include:
	<ul> <li>Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>On combustion, may emit toxic fumes of carbon monoxide (CO).</li> </ul>
	<ul> <li>Combustible.</li> <li>Slight fire hazard when exposed to heat or flame.</li> </ul>
	<ul> <li>Prevent, by any means available, spillage from entering drains or water courses.</li> <li>Use water delivered as a fine spray to control fire and cool adjacent area.</li> </ul>

### 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	<ul> <li>Clean up all spills immediately.</li> <li>Avoid contact with skin and eyes.</li> <li>Wear impervious gloves and safety goggles.</li> <li>Trowel up/scrape up.</li> </ul>
Major Spills	<ul> <li>Clear area of personnel and move upwind.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water course.</li> </ul>

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

### SECTION 7 HANDLING AND STORAGE

### Precautions for safe handling

Safe handling	<ul> <li>Avoid all personal contact, including inhalation.</li> <li>Wear protective clothing when risk of exposure occurs.</li> <li>Use in a well-ventilated area.</li> <li>Prevent concentration in hollows and sumps.</li> </ul>	
Other information	<ul> <li>Store in original containers.</li> <li>Keep containers securely sealed.</li> <li>Store in a cool, dry, well-ventilated area.</li> <li>Store away from incompatible materials and foodstuff containers.</li> </ul>	
Conditions for safe storage, including any incompatibilities		
Suitable container	<ul> <li>Metal can or drum</li> <li>Packaging as recommended by manufacturer.</li> <li>Check all containers are clearly labelled and free from leaks.</li> </ul>	
	For aluminas (aluminium oxide):	

	Incompatible with hot chlorinated rubber.
--	---

- In the presence of chlorine trifluoride may react violently and ignite.
- May initiate explosive polymerisation of olefin oxides including ethylene oxide.
   Produces exothermic reaction above 200 C with halocarbons and an exothermic reaction at ambient temperatures with halocarbons in the presence of other Storage incompatibility metals
  - 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
Australia Exposure Standards	calcined alumina	Aluminium oxide	10 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	stearic acid	Stearates	10 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	C.I. Pigment Green 17	Chromium (III) compounds (as Cr)	0.5 mg/m3	Not Available	Not Available	Not Available

### EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-1 TEEL-2 TEEL-3		
calcined alumina	Aluminum oxide; (Alumina)	5.7 mg/m3	5.7 mg/m3 15 mg/m3 25 mg/m3		
stearic acid	Octadecanoic acid, n-; (Stearic acid)	14 mg/m3	150 mg/m3	910 mg/m3	
C.I. Pigment Green 17	Chromic oxide; (Chromium(III) oxide; Chromium sesquioxide)	2.2 mg/m3	2.2 mg/m3 24 mg/m3 140 mg/m3		
In the Party		Desites UDI U			
Ingredient	Original IDLH	Revised IDLH			
calcined alumina	Not Available	Not Available	Not Available		
stearic acid	Not Available	Not Available	Not Available		
C.I. Pigment Green 17	N.E. mg/m3 / N.E. ppm	25 mg/m3	25 mg/m3		

### 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. 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.
Personal protection	
Eye and face protection	<ul> <li>Safety glasses with side shields.</li> <li>Chemical goggles.</li> <li>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.</li> </ul>
Skin protection	See Hand protection below
Hands/feet protection	<ul> <li>Wear chemical protective gloves, e.g. PVC.</li> <li>Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul>
Body protection	See Other protection below
Other protection	<ul> <li>Overalls.</li> <li>P.V.C. apron.</li> <li>Barrier cream.</li> </ul>
Thermal hazards	Not Available

### **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	Green paste; does not mix with water.		
Physical state	Non Slump Paste	Relative density (Water = 1)	>1.2
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	>300
pH (as supplied)	Not Applicable	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)	100	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	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 Applicable
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

Reactivity	See section 7
Chemical stability	<ul> <li>Unstable in the presence of incompatible materials.</li> <li>Product is considered stable.</li> <li>Hazardous polymerisation will not occur.</li> </ul>
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 TOXICOLOG	

### Information on toxicological effects

Inhaled	The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation of the material, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress. 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. The inhalation of small particles of metal oxide results in sudden thirst, a sweet, metallic foul taste, throat irritation, cough, dry mucous membranes, tiredness and general unwellness. Headache, nausea and vomiting, fever or chills, restlessness, sweating, diarrhoea, excessive urination and prostration may also occur.		
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual. Weanling mice receiving diets containing 5-50% stearyl monoglyceride for three weeks, showed depression of weight gain above 10%. Mortalities occurred with the 50% diet. In another study, rats fed 0.3 % stearic acid as part of a high fat diet for 6 weeks, or 6% for 9 weeks showed decreased blood clotting times and hyperlipaemia. No significant pathology was identified in rats fed at 0.3% for about 30 weeks; anorexia, increased mortality and a greater incidence of pulmonary infection were seen. Acute toxic responses to aluminium are confined to the more soluble forms.		
Skin Contact	Though considered non-harmful, slight irritation may result from contact because of the abrasive nature of the aluminium oxide particles. Thus it may cause itching and skin reaction and inflammation. 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. The material may cause moderate inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering.		
Eye	There is some evidence to suggest that this material can cause e	ye irritation and damage in some persons.	
Chronic		cause some concern following repeated or long-term occupational exposure. ay cause lung disease and cancer, depending on the size of the particle. The smaller the size, he degenerative brain disease Alzheimer's Disease.	
	ΤΟΧΙΟΙΤΥ	IRRITATION	
Dentsply Green Hi Shine	Not Available	Not Available	
	ΤΟΧΙΟΙΤΥ	IRRITATION	
calcined alumina	Oral (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Not Available	
	τοχιςιτγ	IRRITATION	
stearic acid	Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>	Skin (human): 75 mg/3d-l-mild	
	Oral (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Skin (rabbit):500 mg/24h-moderate	
	ΤΟΧΙΟΙΤΥ	IRRITATION	
C.I. Pigment Green 17	Oral (rat) LD50: >5000 mg/kg <sup>[1]</sup>	Not Available	
Legend:	1. Value obtained from Europe ECHA Registered Substances - A extracted from RTECS - Register of Toxic Effect of chemical Sub	cute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data stances	
CALCINED ALUMINA	No significant acute toxicological data identified in literature sear	ch.	
STEARIC ACID	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. The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Equivocal tumorigen by RTEC criteria		
	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. On skin and inhalation exposure, chromium and its compounds (except hexavalent) can be a potent sensitiser, as particulates. Studies show that they have a		
C.I. PIGMENT GREEN 17	reactions. On skin and inhalation exposure, chromium and its compounds (ex		

Dentsply Green I	-li-	Shine
------------------	------	-------

	nose cancers). However, there is no evidence that elemental, The substance is classified by IARC as Group 3: <b>NOT</b> classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in al Substance has been investigated as a mutagen in bacteria an	nimal testing.	
Acute Toxicity	0	Carcinogenicity	0
Skin Irritation/Corrosion	$\otimes$	Reproductivity	$\otimes$
Serious Eye Damage/Irritation	$\otimes$	STOT - Single Exposure	0
Respiratory or Skin sensitisation	0	STOT - Repeated Exposure	0
Mutagenicity	0	Aspiration Hazard	0
			<ul> <li>Data available but does not fill the criteria for classification</li> <li>Data required to make classification available</li> </ul>

Data Not Available to make classification

# SECTION 12 ECOLOGICAL INFORMATION

### Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
calcined alumina	LC50	96	Fish	0.0029mg/L	2
calcined alumina	EC50	48	Crustacea	0.7364mg/L	2
calcined alumina	EC50	96	Algae or other aquatic plants	0.0054mg/L	2
calcined alumina	EC50	168	Crustacea	0.0076mg/L	2
calcined alumina	NOEC	72	Algae or other aquatic plants	>=0.004mg/L	2
stearic acid	EC50	48	Crustacea	>4.8mg/L	2
stearic acid	EC50	72	Algae or other aquatic plants	>0.9mg/L	2
stearic acid	EC50	504	Crustacea	>0.22mg/L	2
stearic acid	NOEC	504	Crustacea	>0.22mg/L	2
C.I. Pigment Green 17	LC50	96	Fish	>0.001mg/L	2
C.I. Pigment Green 17	EC50	72	Algae or other aquatic plants	>0.1481mg/L	2
C.I. Pigment Green 17	EC50	504	Crustacea	>0.0144mg/L	2
C.I. Pigment Green 17	NOEC	96	Fish	0.001mg/L	2
Legend:	Aquatic Toxicity Da		IA Registered Substances - Ecotoxicological I latabase - Aquatic Toxicity Data 5. ECETOC A tion Data 8. Vendor Data		

### DO NOT discharge into sewer or waterways.

### Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
stearic acid	LOW	LOW

# **Bioaccumulative potential**

Ingredient	Bioaccumulation
stearic acid	LOW (LogKOW = 8.23)

# Mobility in soil

Ingredient	Mobility
stearic acid	LOW (KOC = 11670)

### SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods	
Product / Packaging disposal	<ul> <li>DO NOT allow wash water from cleaning or process equipment to enter drains.</li> <li>It may be necessary to collect all wash water for treatment before disposal.</li> <li>In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>Where in doubt contact the responsible authority.</li> <li>Recycle wherever possible or consult manufacturer for recycling options.</li> <li>Consult State Land Waste Authority for disposal.</li> <li>Bury or incinerate residue at an approved site.</li> <li>Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul>

### **SECTION 14 TRANSPORT INFORMATION**

#### Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

# Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

### Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

### Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

### SECTION 15 REGULATORY INFORMATION

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

CALCINED ALUMINA(1344-28-1.) IS FOUND ON THE FOLLOWING REGULATORY LISTS				
Australia Exposure Standards	Australia Inventory of Chemical Substances (AICS)			
STEARIC ACID(57-11-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS				
Australia Exposure Standards	Australia Inventory of Chemical Substances (AICS)			
C.I. PIGMENT GREEN 17(1308-38-9) IS FOUND ON THE FOLLOWING REGULATORY LISTS				
Australia Exposure Standards	Australia Inventory of Chemical Substances (AICS)			

Australia Hazardous Substances Information System - Consolidated Lists

Australia Inventory of Chemical Substances (AICS) International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (calcined alumina; stearic acid; C.I. Pigment Green 17)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Υ
Japan - ENCS	Y
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
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**

#### Other information

### Ingredients with multiple cas numbers

Name	CAS No
C.I. Pigment Green 17	1308-38-9, 68909-79-5

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chernwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

### www.chemwatch.net

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 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

This document is copyright.

Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH. TEL (+61 3) 9572 4700.

