

Pola Office Liquid

SDI Limited

Version No: 5.1.1.1 Safety Data Sheet (Conforms to Regulations (EC) No 2015/830) Issue Date: 29/01/2016 Print Date: 23/03/2016 Initial Date: Not Available L.REACH.GBR.EN

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

1.1.Product Identifier

Product name	Pola Office Liquid
Synonyms	Not Available
Proper shipping name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION with not less than 20% but not more than 60% hydrogen peroxide (stabilized as necessary)
Other means of identification	Not Available

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

Relevant identified uses	To remove discoloration of teeth, to be performed by a dentist.		
Uses advised against	Not Applicable		

1.3. Details of the supplier of the safety data sheet

Registered company name	SDI Limited	SDI Brazil Industria E Comercio Ltda	SDI Germany GmbH	
Address	3-15 Brunsdon Street VIC Bayswater 3153 Australia	Rua Dr. Virgilio de Carvalho Pinto, 612 São Paulo CEP 05415-020 Brazil	Hansestrasse 85 Cologne D-51149 Germany	
Telephone	+61 3 8727 7111 (Business Hours)	+55 11 3092 7100	+49 0 2203 9255 0	
Fax	+61 3 8727 7222	+55 11 3092 7101	+49 0 2203 9255 200	
Website	www.sdi.com.au	www.sdi.com.au	www.sdi.com.au	
Email	info@sdi.com.au	brasil@sdi.com.au	germany@sdi.com.au	
Registered company name	SDI (North America) Inc.			
Address	1279 Hamilton Parkway IL Itasca 60143 United States			
Telephone	+1 630 361 9200 (Business hours)			
Fax	Not Available			
Website	Not Available			
Email	USA.Canada@sdi.com.au			

1.4. Emergency telephone number

Association / Organisation	SDI Limited	Not Available	Not Available	
Emergency telephone numbers	+61 3 8727 7111	Not Available	Not Available	
Other emergency telephone numbers	ray.cahill@sdi.com.au	Not Available	Not Available	
Association / Organisation	Not Available			
Emergency telephone numbers	+61 3 8727 7111			
Other emergency telephone numbers	Not Available			

SECTION 2 HAZARDS IDENTIFICATION

2.1.Classification of the substance or mixture

Considered a dangerous mixture according to Directive 1999/45/EC, Reg. (EC) No 1272/2008 (if applicable) and their amendments. Classified as Dangerous Goods for transport purposes.

DSD classification In case of mixtures, classification has been prepared by following DPD (Directive 1999/45/EC) and CLP Regulation (EC) No 1272/2008 regulations

Pol	a Of	fice	Liqu	bit
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DPD classification ^[1]	R37/38 R41	Irritating to respiratory system and skin. Risk of serious damage to eyes.				
Legend:	1. Classification by vendor; 2. Classification drawn from EC Directive 67/548/EEC - Annex I ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI					
Classification according to regulation (EC) No 1272/2008 [CLP] ^[1]	Oxidizing Liquid Category 2, Metal Corrosion Category 1, Skin Corrosion/Irritation Category 1A, Serious Eye Damage Category 1, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation)					
Legend:	1. Classifica	ation by vendor; 2. Classification drawn from EC Directive 67/548/EEC - Annex I ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI				

2.2. Label elements



May cause respiratory irritation.

SIGNAL WORD DANGER			
Hazard statement(s)			
H272	May intensify fire; oxidiser.		
H290	May be corrosive to metals.		
H314	Causes severe skin burns and eye damage.		
H318	Causes serious eye damage.		

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

H335

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P221	Take any precaution to avoid mixing with combustibles/organic material.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P220	Keep/Store away from clothing/organic material/combustible materials.
P234	Keep only in original container.

Precautionary statement(s) Response

P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.		
P303+P361+P353	ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.		
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.		
P310	Immediately call a POISON CENTER/doctor/physician/first aider.		
P370+P378	In case of fire: Use alcohol resistant foam or fine spray/water fog to extinguish.		
P363	Wash contaminated clothing before reuse.		
P390	Absorb spillage to prevent material damage.		
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.		

Precautionary statement(s) Storage

P405	Store locked up.	
P403+P233	403+P233 Store in a well-ventilated place. Keep container tightly closed.	

Precautionary statement(s) Disposal

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

Ingestion may produce health damage*.

REACh - Art.57-59: The mixture does not contain Substances of Very High Concern (SVHC) at the SDS print date.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1.Substances

See 'Composition on ingredients' in Section 3.2

3.2.Mixtures

1.CAS No

2.EC No 3.Index No 4.REACH No			directive 67/548/EEC [DSD]	
1.7722-84-1 2.231-765-0 3.008-003-00-9 4.01-2119485845-22-XXXX	35	<u>hydrogen</u> peroxide	R5, R8, R20/22, R35 ^[2]	Oxidizing Liquid Category 1, Acute Toxicity (Inhalation) Category 4, Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 1A; H271, H332, H302, H314 [3]
Legend:	1. Classification by vendor; 2. Classification drawn from EC Directive 67/548/EEC - Annex I ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI 4. Classification drawn from C&L			

SECTION 4 FIRST AID MEASURES

4.1. Description of first aid measures

	 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.
General	If this product comes in contact with the eyes: Immediately hold eyelids apart and flush the eye continuously with 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. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. If fumes or combustion products are inhaled remove from contaminated area. Seek medical attention. If swallowed do NOT induce vomiting. If wonting 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.
Eye Contact	If this product comes in contact with the eyes: Immediately hold eyelids apart and flush the eye continuously with 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. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. 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 fumes or combustion products are inhaled remove from contaminated area. Seek medical attention.
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.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

4.3. Indication of any immediate medical attention and special treatment needed

Depending on the degree of exposure, periodic medical examination is indicated. The symptoms of lung oedema often do not manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation is therefore essential. Immediate administration of an appropriate spray, by a doctor or a person authorised by him/her should be considered. (ICSC24419/24421

SECTION 5 FIREFIGHTING MEASURES

5.1. Extinguishing media

FOR SMALL FIRE:

▶ USE FLOODING QUANTITIES OF WATER.

• DO NOT use dry chemical, CO2, foam or halogenated-type extinguishers.

FOR LARGE FIRE

Flood fire area with water from a protected position

5.2. Special hazards arising from the substrate or mixture

Fire Incompatibility	 Avoid any contamination of this material as it is very reactive and any contamination is potentially hazardous Reacts vigorously with alkali metals 	
5.3. Advice for firefighters		
Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. May be violently or explosively reactive. Wear full body protective clothing with breathing apparatus. 	

• Wear full body protective clothing with breathing apparatus.

Prevent, by any means available, spillage from entering drains or water courses.

▶ Fight fire from a safe distance, with adequate cover. Extinguishers should be used only by trained personnel. ٠ • Use water delivered as a fine spray to control fire and cool adjacent area. DO NOT approach containers suspected to be hot. ۶ Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. ٠ If fire gets out of control withdraw personnel and warn against entry. Equipment should be thoroughly decontaminated after use. ▶ Will not burn but increases intensity of fire. May explode from friction, shock, heat or containment. ► Heating may cause expansion or decomposition leading to violent rupture of containers. Heat affected containers remain hazardous. Fire/Explosion Hazard Contact with combustibles such as wood, paper, oil or finely divided metal may produce spontaneous combustion or violent decomposition. May emit irritating, poisonous or corrosive fumes. ► Combustion/decomposition may produce acrid/toxic fumes of carbon monoxide (CO). Combustion products include; carbon dioxide (CO2) other pyrolysis products typical of burning organic material sulfur oxides (SOx)

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

See section 8

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

Minor Spills	 Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material. Check regularly for spills and leaks. Clean up all spills immediately. No smoking, naked lights, ignition sources. Avoid all contact with any organic matter including fuel, solvents, sawdust, paper or cloth and other incompatible materials, as ignition may result. Avoid breathing dust or vapours and all contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with dry sand, earth, inert material or vermiculite. DO NOT use sawdust as fire may result. Scoop up solid residues and seal in labelled drums for disposal. Neutralise/decontaminate area.
Major Spills	 Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. May be violently or explosively reactive. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Consider evacuation (or protect in place). No smoking, flames or ignition sources. Increase ventilation. Contain spill with sand, earth or other clean, inert materials. NEVER use organic absorbents such as sawdust, paper, cloth; as fire may result. Avoid any contamination by organic matter. Use spark-free and explosion-proof equipment. Collect any recoverable product into labelled containers for possible recycling. DO NOT mix fresh with recovered material. Collect residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains. Decontamination of drains or waterways occurs advise emergency services.

6.4. Reference to other sections

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

SECTION 7 HANDLING AND STORAGE

7.1. Precautions for safe handling

	······································
	Avoid all personal contact, including inhalation.
	Wear protective clothing when risk of overexposure occurs.
	 Use in a well-ventilated area.
	 Prevent concentration in hollows and sumps.
	DO NOT enter confined spaces until atmosphere has been checked.
	Avoid smoking, naked lights or ignition sources.
	Avoid generation of static electricity.
	DO NOT use plastic buckets.
	Earth all lines and equipment.
Safe handling	Use spark-free tools when handling.
-	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.
	Use good occupational work practice.
	 Observe manufacturer's storage and handling recommendations contained within this SDS.
	Atmosphere should be required to the checked against established exposure standards to ensure safe working conditions.

Pola Office Liquid

Fire and explosion protection	See section 5
Other information	Store between 2 and 8 deg C. Do not store in direct sunlight. Store in a dry and well ventilated-area, away from heat and sunlight.
7.2. Conditions for safe st	orage, including any incompatibilities
Suitable container	DO NOT repack. Use containers supplied by manufacturer only.
Storage incompatibility	► Avoid strong acids, bases.

7.3. Specific end use(s)

See section 1.2

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

DERIVED NO EFFECT LEVEL (DNEL)

Not Available

PREDICTED NO EFFECT LEVEL (PNEC)

Not Available

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
UK Workplace Exposure Limits (WELs)	hydrogen peroxide	Hydrogen peroxide	1.4 mg/m3 / 1 ppm	2.8 mg/m3 / 2 ppm	Not Available	Not Available
EMERGENCY LIMITS						

Ingredient	Material name	TEEL-1		TEEL-2	TEEL-3
hydrogen peroxide	Hydrogen peroxide	Not Available		Not Available	Not Available
hydrogen peroxide	Hydrogen peroxide - 30%	33 ppm		170 ppm	330 ppm
Ingredient	Original IDLH		Revised	IDLH	
hydrogen peroxide	75 ppm		75 [Unch]	ppm	

MATERIAL DATA

8.2. Exposure controls

	Engineering controls are used to remove a hazard or place a barrier between the work effective in protecting workers and will typically be independent of worker interactions to The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to re Enclosure and/or isolation of emission source which keeps a selected hazard "physical "removes" air in the work environment. Ventilation can remove or dilute an air contamin the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure	provide this high level of protection. duce the risk. y" away from the worker and ventilation that stra ant if designed properly. The design of a ventilation.	tegically "adds" and on system must match	
	Local exhaust ventilation usually required. If risk of overexposure exists, wear approver Supplied-air type respirator may be required in special circumstances. Correct fit is es		uate protection.	
	An approved self contained breathing apparatus (SCBA) may be required in some situ			
	Provide adequate ventilation in warehouse or closed storage area. Air contaminants ge turn, determine the "capture velocities" of fresh circulating air required to effectively rer	, , , ,	pe" velocities which, in	
	turn, determine the capture velocities of resh circulating an required to enectively ren	iove the contaminant.		
	Type of Contaminant:		Air Speed:	
	solvent, vapours, degreasing etc., evaporating from tank (in still air).		0.25-0.5 m/s (50-10 f/min.)	
propriate controls	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) 1-2.			
	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: High production, heavy use	ı, heavy use	
	3: Intermittent, low production.	o. High production, neavy doc		

Page 6 of 12
Pola Office Liquid

	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.
8.2.2. Personal protection	
Eye and face protection	 Safety glasses with side shields. Chemical goggles. Full face shield may be required for supplementary but never for primary protection of eyes Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59]. [AS/NZS 1336 or national equivalent]
Skin protection	See Hand protection below
Hands/feet protection	 Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber
Body protection	See Other protection below
Other protection	 Overalls. PVC Apron. PVC protective suit may be required if exposure severe. Eyewash unit. Ensure there is ready access to a safety shower.
Thermal hazards	Not Available

Respiratory protection

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

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

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

^ - Full-face

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

8.2.3. Environmental exposure controls

See section 12

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance Clear, colourless liquid; mixes with water.

Physical state	Liquid	Relative density (Water = 1)	1.13
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)	Miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

9.2. Other information

Pola Office Liquid

Not Available

SECTION 10 STABILITY AND REACTIVITY

10.1.Reactivity	See section 7.2
10.2. Chemical stability	 Unstable in the presence of incompatible materials. Product is considered stable under normal handling conditions. Prolonged exposure to heat. Hazardous polymerisation will not occur.
10.3. Possibility of hazardous reactions	See section 7.2
10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

SECTION 11 TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Inhaled	Evidence shows, or practical experience predicts, that the material produces irritation of the respiratory system, in a substantial number of individuals, following inhalation. In contrast to most organs, the lung is able to respond to a chemical insult by first removing or neutralising the irritant and then repairing the damage. The repair process, which initially evolved to protect mammalian lungs from foreign matter and antigens, may however, produce further lung damage resulting in the impairment of gas exchange, the primary function of the lungs. Respiratory tract irritation often results in an inflammatory response involving the recruitment and activation of many cell types, mainly derived from the vascular system. Inhalation of quantities of liquid mist may be extremely hazardous, even lethal due to spasm, extreme irritation of larynx and bronchi, chemical pneumonitis and pulmonary oedema. Inhalation of excessive levels of mist may result in headache, dizziness, vomiting, diarrhoea, irritability, insomnia and in extreme pulmonary oedema. Systemic poisoning due to hydrogen peroxide inhalation may cause tremors and numbness of the extremities, convulsions, pulmonary oedema, coma and shock. Hydrogen peroxide has poor warning properties. High concentrations of the vapour or mist are likely to cause extreme irritation of the nose and chest, cough, discomfort, shortness of breath, and inflammation of the nose and throat.		
Ingestion	Accidental ingestion of the material may be damaging to the health of the individ	dual.	
Skin Contact	Evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis. The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (eythema) and swelling (spongiosis) and intracellular oedema of the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.		
Eye	When applied to the eye(s) of animals, the material produces severe ocular lesions which are present twenty-four hours or more after instillation.		
Chronic	Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue. Gastrointestinal disturbances may also occur. Chronic exposures may result in dermatitis and/or conjunctivitis.		
	τοχιςιτγ	IRRITATION	
Pola Office Liquid	Not Available	Not Available	
	TOXICITY dermal (rat) LD50: 3000-5480 mg/kg ^[1]	IRRITATION Nil reported	
hydrogen peroxide	Inhalation (rat) LC50: 2 mg/L/4H ^[2]		
	Oral (rat) LD50: 75 mg/kg ^[1]		
Legend:	 Value obtained from Europe ECHA Registered Substances - Acute toxicity 2 extracted from RTECS - Register of Toxic Effect of chemical Substances 	* Value obtained from manufacturer's SDS. Unless otherwise specified data	

	No significant acute toxicological data identified in literature search.
HYDROGEN PEROXIDE	Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production. For hydrogen peroxide: Hazard increases with peroxide concentration, high concentrations contain an additive stabiliser. Pharmacokinetics Hydrogen peroxide is a normal product of metabolism. It is readily decomposed by catalase in normal cells. In experimental animals exposed to hydrogen peroxide, target organs affected include the lungs, intestine, thymus, liver, and kidney, suggesting its distribution to those sites.

	 Distribution Hydrogen peroxide is produced metabolicall transfer reaction, often catalysed by flavoproteins, or by at Hydrogen peroxide has been detected in serum and in int distribution sites. In rabbits and cats that died after intrave intraperitoneal injection of hydrogen peroxide in mice, pyl-renal tubular epithelial tissue was observed following oral Metabolism Glutathione peroxidae, responsible for decorperoxide comes in contact with catalase, an enzyme found. Excretion Hydrogen peroxide has been detected in huma Carcinogenicity Gastric and duodenal lesions including adenomas, carcinoma: Marked strain differences in the incidence of tumors have been Genotoxicity Hydrogen peroxide induced DNA damage, sister chromatid e DNA damage in bacteria (<i>E. coli</i>), and was mutagenic to bac not to <i>Streptomyces griseoflavus</i>. It was not mutagenic to <i>Dro</i> Developmental Toxicity Malformations have been observed in chicken embryos treated formations have been observed in chicken embryos treated litters when mated with untreated males. 	y in intact cells and tissues. It is form in initial one-electron step to O2 follow act liver. based on the results of toxic nous administration of hydrogen per indic nuclei were induced in the inte- administration of hydrogen peroxide proposing hydrogen peroxide, is prese d in blood and most tissues, it rapidly in breath at levels ranging from 1.0+/ s, and adenocarcinomas have been n observed. Papilloma development h xchanges and chromosomal aberrat teria (<i>Salmonella typhimurium</i>) and th <i>sophila melanogaster</i> or to mammali d with hydrogen peroxide, but experin nt to approximately 630 mg/kg/day)7 ssolved in water were injected into th ic deaths and malformations was down g/day) given as the sole drinking fluid	 wed by dismutation to hydrogen peroxide. ity studies, the lungs, intestine, thymus, liver, and kidney may be oxide, the lungs were pale and emphysematous. Following stine and thymus (IARC 1985). Degeneration of hepatic and a to mice. sent in normal human tissues (IARC 1985). When hydrogen decomposes into oxygen and water. <i>k</i>-5 g/L to 0.34+/-0.17 g/L. observed in mice treated orally with hydrogen peroxide. has been observed in mice treated by dermal application. ions in mammalian cells <i>in vitro</i>. Hydrogen peroxide induced he fungi, <i>Neurospora crassa</i> and <i>Aspergillis chevallieri</i>, but an cells <i>in vitro</i>. nents with mice and rats have been negative. as the sole drinking fluid for five weeks produced normal he airspace of groups of 20-30 white leghorn chicken eggs on se-related and detected at doses of 2.8 mol/egg and above.
Acute Toxicity	0	Carcinogenicity	0
Skin Irritation/Corrosion	¥	Reproductivity	0
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	0
Respiratory or Skin sensitisation	0	STOT - Repeated Exposure	0
Mutagenicity	0	Aspiration Hazard	0

Legend:

Data available but does not fill the criteria for classification
 Data required to make classification available

Data required to make classification available
 Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

12.1. Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
hydrogen peroxide	LC50	96	Fish	0.020mg/L	3
hydrogen peroxide	EC50	3	Algae or other aquatic plants	0.27mg/L	4
hydrogen peroxide	EC50	48	Crustacea	2.32mg/L	4
hydrogen peroxide	EC50	72	Algae or other aquatic plants	0.71mg/L	4
hydrogen peroxide	NOEC	192	Fish	0.028mg/L	4
Legend:	Aquatic Toxicity Data (E	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data			

DO NOT discharge into sewer or waterways.

12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
hydrogen peroxide	LOW	LOW

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
hydrogen peroxide	LOW (LogKOW = -1.571)

12.4. Mobility in soil

Ingredient	Mobility
hydrogen peroxide	LOW (KOC = 14.3)

12.5. Results of PBT and vPvB assessment

Р

Т

Pola Office Liquid

Relevant available data	Not Available	Not Available	Not Available
PBT Criteria fulfilled?	Not Available	Not Available	Not Available

12.6. Other adverse effects

No data available

SECTION 13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product / Packaging disposal	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 drains. • 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.
Waste treatment options	Not Available
Sewage disposal options	Not Available

SECTION 14 TRANSPORT INFORMATION

Labels Required

	CORRESPE 5.1 8	
Marine Pollutant	NO	
HAZCHEM	2P	
Land transport (ADR)		
14.1.UN number	2014	
14.2 Packing group	1	

14.2.Packing group	Ш	
14.3.UN proper shipping name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION with not less than 20% but not more than 60% hydrogen peroxide (stabilized as necessary)	
14.4.Environmental hazard	Not Applicable	
14.5. Transport hazard class(es)	Class 5.1 Subrisk 8	
14.6. Special precautions for user	Hazard identification (Kemler) Classification code Hazard Label Special provisions Limited quantity	58 OC1 5.1+8 Not Applicable 1 L

Air transport (ICAO-IATA / DGR)

14.1. UN number	2014			
14.2. Packing group	Ш	П		
14.3. UN proper shipping name	Hydrogen peroxide, aqueous solution with 20% or more but 40% or less hydrogen peroxide (stabilized as necessary)			
14.4. Environmental hazard	Not Applicable			
14.5. Transport hazard class(es)	ICAO/IATA Class 5.1 ICAO / IATA Subrisk 8 ERG Code 5C			
14.6. Special precautions for user	Special provisions Cargo Only Packing Instructions Cargo Only Maximum Qty / Pack	Not Applicable 554 5 L		

Pola Office Liquid

Passenger and Cargo Packing Instructions	550
Passenger and Cargo Maximum Qty / Pack	1 L
Passenger and Cargo Limited Quantity Packing Instructions	Y540
Passenger and Cargo Limited Maximum Qty / Pack	0.5 L

Sea transport (IMDG-Code / GGVSee)

14.1. UN number	2014			
14.2. Packing group	Ш			
14.3. UN proper shipping name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION with not less than 20% but not more than 60% hydrogen peroxide (stabilized as necessary)			
14.4. Environmental hazard	Not Applicable			
14.5. Transport hazard class(es)	IMDG Class 5.1 IMDG Subrisk 8			
14.6. Special precautions for user	EMS Number F-H, S-Q Special provisions Not Applicable Limited Quantities 1 L			

Inland waterways transport (ADN)

14.1. UN number	2014				
14.2. Packing group	II Contraction of the second se				
14.3. UN proper shipping name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION with not less than 20% but not more than 60% hydrogen peroxide (stabilized as necessary)				
14.4. Environmental hazard	Not Applicable				
14.5. Transport hazard class(es)	5.1 8				
14.6. Special precautions for user	Classification codeOC1Special provisionsNot ApplicableLimited quantity1 LEquipment requiredPP, EPFire cones number0				

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

Not Applicable

If packed as Chemical kits the following classification may be considered if all ICAO/IATA transport requirements are met: Chemical Kit UN3316 - Class 9. If packed in Chemical kits the following classification may be considered if all ICAO/IATA transport requirements are met: Chemical Kit UN3316 - Class 9.

SECTION 15 REGULATORY INFORMATION

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

HYDROGEN PEROXIDE(7722-84-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS

EU REACH Regulation (EC) No 1907/2006 - Annex XVII - Restrictions on the manufacture,	European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and
placing on the market and use of certain dangerous substances, mixtures and articles	Packaging of Substances and Mixtures - Annex VI
European Customs Inventory of Chemical Substances ECICS (English)	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)	Monographs
(English)	International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List
European Union (EU) Annex I to Directive 67/548/EEC on Classification and Labelling of	Passenger and Cargo Aircraft
Dangerous Substances - updated by ATP: 31	UK Workplace Exposure Limits (WELs)

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : 67/548/EEC, 1999/45/EC, 98/24/EC, 92/85/EC, 94/33/EC, 91/689/EEC, 1999/13/EC, Commission Regulation (EU) 2015/830, Regulation (EC) No 1272/2008 and their amendments as well as the following British legislation: - The Control of Substances Hazardous to Health Regulations (COSHH) 2002 - COSHH Essentials - The Management of Health and Safety at Work Regulations 1999

15.2. Chemical safety assessment

For further information please look at the Chemical Safety Assessment and Exposure Scenarios prepared by your Supply Chain if available.

ECHA SUMMARY

Ingredient	CAS number Index No		ECHA Dossier		
hydrogen peroxide	7722-84-1 008-003-00-9 01		01-21	1-2119485845-22-XXXX	
Harmonisation (C&L Inventory) Hazard Class and Category Code(s)			Pictograms Signal Word Code(s)	Hazard Statement Code(s)	
1 Ox. Liq. 1, Acute Tox. 4, Skin Corr. 1A			GHS07, GHS05, GHS03, Dgr	H271, H302, H314, H332	

GHS05, GHS03, Dgr,

Pola Office Liquid

Ox. Liq. 1, Acute Tox. 4, Skin Corr. 1A, Eye Dam. 1, STOT SE 3, Aquatic Chronic 3, Ox. Liq.

H271, H314, H335, H318, 2, Acute Tox. 3, Flam. Liq. 2, Skin Corr. 1B, Acute Tox. 2, Met. Corr. 1, Aquatic Chronic 2, GHS02, GHS06, GHS09, 2 H225, H301, H330, H290 Not Classified, Skin Irrit. 2, Eye Irrit. 2 Wng Harmonisation Code 1 = The most prevalent classification, Harmonisation Code 2 = The most severe classification. National Inventory Status Australia - AICS Υ Canada - DSL Y Canada - NDSI N (hydrogen peroxide) China - IECSC Y Europe - EINEC / ELINCS / Y NLP Y Japan - ENCS Y Korea - KECI New Zealand - NZIoC Y Y Philippines - PICCS USA - TSCA Y Y = All ingredients are on the inventory Legend: 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

Full text Risk and Hazard codes

H225	Highly flammable liquid and vapour.	
H271	May cause fire or explosion; strong oxidiser.	
H301	Toxic if swallowed.	
H302	Harmful if swallowed.	
H330	Fatal if inhaled.	
H332	H332 Harmful if inhaled.	
R20/22	Harmful by inhalation and if swallowed.	
R35	Causes severe burns.	
R5	Heating may cause an explosion.	
R8	Contact with combustible material may cause fire.	

Other information

DSD / DPD label elements



Relevant risk statements are found in section 2.1

Indication(s) of danger	Xi	
SAFETY ADVICE		
S02 Keep out of reach of children.		
S23	Do not breathe gas/fumes/vapour/spray.	
S26 In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.		
S35 This material and its container must be disposed of in a safe way.		
S37 Wear suitable gloves.		
S39 Wear eye/face protection.		
S40 To clean the floor and all objects contaminated by this material, use water.		
S46 If swallowed, seek medical advice immediately and show this container or label.		
S56 Dispose of this material and its container at hazardous or special waste collection point.		
S64	If swallowed, rinse mouth with water (only if the person is conscious).	

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by SDI Limited 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.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 166 Personal eye-protection EN 340 Protective clothing

EN 374 Protective gloves against chemicals and micro-organisms

EN 13832 Footwear protecting against chemicals

Pola Office Liquid

EN 133 Respiratory protective devices

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

The information contained in the Safety Data Sheet is based on data considered to be accurate, however, no warranty is expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof.

Other information:

Prepared by: SDI Limited 3-15 Brunsdon Street, Bayswater Victoria, 3153, Australia

Phone Number: +61 3 8727 7111

Date of preparation/revision: 23rd September 2015

Department issuing SDS: Research and Development

Contact: Technical Director





SDI Limited

Version No: 6.1.1.1 Safety Data Sheet (Conforms to Regulations (EC) No 2015/830) Issue Date: 18/03/2016 Print Date: 24/03/2016 Initial Date: Not Available L.REACH.GBR.EN

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

1.1.Product Identifier

Product name	Pola Office Powder
Synonyms	Not Available
Other means of identification	Not Available

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

Relevant identified uses	To remove discoloration of teeth, to be performed by a dentist.	
Uses advised against	Not Applicable	

1.3. Details of the supplier of the safety data sheet

Registered company name	SDI Limited	SDI Brazil Industria E Comercio Ltda	SDI Germany GmbH
Address	3-15 Brunsdon Street VIC Bayswater 3153 Australia	Rua Dr. Virgilio de Carvalho Pinto, 612 São Paulo CEP 05415-020 Brazil	Hansestrasse 85 Cologne D-51149 Germany
Telephone	+61 3 8727 7111 (Business Hours)	+55 11 3092 7100	+49 0 2203 9255 0
Fax	+61 3 8727 7222	+55 11 3092 7101	+49 0 2203 9255 200
Website	www.sdi.com.au	www.sdi.com.au	www.sdi.com.au
Email	info@sdi.com.au	brasil@sdi.com.au	germany@sdi.com.au
Registered company name	SDI (North America) Inc.		
Address	1279 Hamilton Parkway IL Itasca 60143 United S	States	
Telephone	Telephone +1 630 361 9200 (Business hours)		
Fax	Fax Not Available		
Website	Not Available		
Email	USA.Canada@sdi.com.au		

1.4. Emergency telephone number

Association / Organisation	SDI Limited	Not Available	Not Available
Emergency telephone numbers	+61 3 8727 7111	Not Available	Not Available
Other emergency telephone numbers	ray.cahill@sdi.com.au	Not Available	Not Available
Association / Organisation	Not Available		
Association / Organisation	Not Available		
Emergency telephone numbers	+61 3 8727 7111		
Other emergency telephone numbers	Not Available		

SECTION 2 HAZARDS IDENTIFICATION

2.1.Classification of the substance or mixture

Considered a dangerous mixture according to directive 1999/45/EC, Reg. (EC) No 1272/2008 (if applicable) and their amendments. Not classified as Dangerous Goods for transport purposes.

DSD classification	In case of mixtures, classification has been prepared by following DPD (Directive 1999/45/EC) and CLP Regulation (EC) No 1272/2008 regulations			
DPD classification ^[1]	11 R36/37/38 Irritating to eyes, respiratory system and skin.			
Legend:	1. Classification by vendor; 2. Classification drawn from EC Directive 67/548/EEC - Annex I ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI			

Classification according to regulation (EC) No 1272/2008 [CLP] ^[1]	Skin Corrosion/Irritation Category 2, Eye Irritation Category 2, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation)
Legend:	1. Classification by vendor; 2. Classification drawn from EC Directive 67/548/EEC - Annex I ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI
2.2. Label elements	
CLP label elements	
SIGNAL WORD	WARNING
Hazard statement(s)	
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

P271	Use only outdoors or in a well-ventilated area.				
P261	P261 Avoid breathing dust/fume/gas/mist/vapours/spray.				
P280	Wear protective gloves/protective clothing/eye protection/face protection.				

Precautionary statement(s) Response

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Precautionary statement(s) Storage

P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

Precautionary statement(s) Disposal

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

2.3. Other hazards

Cumulative effects may result following exposure*.

REACh - Art.57-59: The mixture does not contain Substances of Very High Concern (SVHC) at the SDS print date.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1.Substances

See 'Composition on ingredients' in Section 3.2

3.2.Mixtures

1.CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classification according to directive 67/548/EEC [DSD]	Classification according to regulation (EC) No 1272/2008 [CLP]				
1.Not Available 2.Not Available 3.Not Available 4.Not Available	70-75	silicone dioxide powder	Not Applicable	Not Applicable				
Legend:		1. Classification by vendor; 2. Classification drawn from EC Directive 67/548/EEC - Annex I ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI 4. Classification drawn from C&L						

SECTION 4 FIRST AID MEASURES

General	 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. If this product comes in contact with the eyes: Immediately hold eyelids apart and flush the eye continuously with 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. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. If fumes or combustion products are inhaled remove from contaminated area. Seek medical attention. If swallowed do NOT induce vomiting. 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.
Eye Contact	If this product comes in contact with the eyes: Immediately hold eyelids apart and flush the eye continuously with 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. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. 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 fumes or combustion products are inhaled remove from contaminated area. Seek medical attention.
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.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

5.1. Extinguishing media

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

5.2. Special hazards arising from the substrate or mixture

Fire Incompatibility	► Reacts vigorously with alkali metals
5.3. Advice for firefighters	
Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water courses. Use water delivered as a fine spray to control fire and cool adjacent area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers fire. Equipment should be thoroughly decontaminated after use.
Fire/Explosion Hazard	 Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) - according to the circumstances under which the combustion process occurs, such materials may cause fires and / or dust explosions. Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions). Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited - particles exceeding this limit will generally not form flammable dust clouds; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion. In the same way as gases and vapours, dusts in the form of a cloud are only ignitable over a range of concentrations; in principle, the concepts of lower explosive limit (LEL) and upper explosive limit (UEL) are applicable to dust clouds but only the LEL is of practical use; - this is because of the inherent difficulty of achieving homogeneous dust clouds at high temperatures (for dusts the LEL is often called the "Minimum Explosible Concentration", MEC). When processed with flammable liquids/vapors/mists.ignitable (hybrid) mixtures may be formed with combustible dusts. Ignitable mixtures will increase the rate of explosion pressure rise and the Minimum Ignition Energy (the minimum amount of energy required to ignite dust clouds - MIE) will be lower than the pure dust in air mixture. The Lower Explosive Limit (LEL) of the vapour/dust mixture will be lower than the

A dust explosion may release of large quantities of gaseous products; this in turn creates a subsequent pressure rise of explosive force capable of damaging plant and buildings and injuring people.
Usually the initial or primary explosion takes place in a confined space such as plant or machinery, and can be of sufficient force to damage or rupture the plant. If the shock wave from the primary explosion enters the surrounding area, it will disturb any settled dust layers, forming a second dust cloud, and often initiate a much larger secondary explosion. All large scale explosions have resulted from chain reactions of this type.
 Dry dust can be charged electrostatically by turbulence, pneumatic transport, pouring, in exhaust ducts and during transport. Build-up of electrostatic charge may be prevented by bonding and grounding.
 Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting. All movable parts coming in contact with this material should have a speed of less than 1-meter/sec.
A sudden release of statically charged materials from storage or process equipment, particularly at elevated temperatures and/ or pressure, may result in ignition especially in the absence of an apparent ignition source.
One important effect of the particulate nature of powders is that the surface area and surface structure (and often moisture content) can vary widely from sample to sample, depending of how the powder was manufactured and handled; this means that it is virtually impossible to use flammability data published in the literature for dusts (in contrast to that published for gases and vapours).
Autoignition temperatures are often quoted for dust clouds (minimum ignition temperature (MIT)) and dust layers (layer ignition temperature (LIT)); LIT generally falls as the thickness of the layer increases.
Combustion products include; carbon monoxide (CO) carbon dioxide (CO2) silicon dioxide (SiO2) other pyrolysis products typical of burning organic material May emit poisonous fumes. May emit corrosive fumes.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures See section 8

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

Minor Spills	 Clean up all spills immediately. Avoid breathing dust and contact with skin and eyes. Wear protective clothing, gloves, safety glasses and dust respirator. Use dry clean up procedures and avoid generating dust. Sweep up, shovel up or Vacuum up (consider explosion-proof machines designed to be grounded during storage and use). Place spilled material in clean, dry, sealable, labelled container.
Major Spills	 Moderate hazard. CAUTION: Advise personnel in area. Alert Emergency Services and tell them location and nature of hazard. Control personal contact by wearing protective clothing. Prevent, by any means available, spillage from entering drains or water courses. Recover product wherever possible. IF DRY: Use dry clean up procedures and avoid generating dust. Collect residues and place in sealed plastic bags or other containers for disposal. IF WET: Vacuum/shovel up and place in labelled containers for disposal. ALWAYS: Wash area down with large amounts of water and prevent runoff into drains. If contamination of drains or waterways occurs, advise Emergency Services.

6.4. Reference to other sections

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

SECTION 7 HANDLING AND STORAGE

7.1. 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. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. DO NOT allow material to contact humans, exposed food or food utensils. Avoid contact with incompatible materials. 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.
Fire and explosion protection	See section 5
Other information	Store between 2 and 8 deg C. Do not store in direct sunlight. Store in a dry and well ventilated-area, away from heat and sunlight.
7.2. Conditions for safe st	torage, including any incompatibilities
Suitable container	DO NOT repack. Use containers supplied by manufacturer only.
Storage incompatibility	Avoid strong acids, bases.

7.3. Specific end use(s)

See section 1.2

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

DERIVED NO EFFECT LEVEL (DNEL)

Not Available

PREDICTED NO EFFECT LEVEL (PNEC)

Not Available

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient Material name		TWA		STEL Peak			Notes	
Not Available	Not Available Not Available			Not Available	Not Available	Not Availat	le	Not Available	
EMERGENCY LIMITS									
Ingredient	Material name		TEEL-1		TEEL-2		TEEL-3		
Pola Office Powder	Not Available		Not Available		Not Available		Not Available		
Ingredient	Original IDLH				Revised IDLH				
silicone dioxide powder	Not Available				Not Available				

MATERIAL DATA

8.2. Exposure controls

•			
	 Engineering controls are used to remove a hazard or place a barrier between the worker and the effective in protecting workers and will typically be independent of worker interactions to provide. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if dest the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. Local exhaust ventilation is required where solids are handled as powders or crystals; ever powdered by mutual friction. Exhaust ventilation should be designed to prevent accumulation and recirculation of particul. If in spite of local exhaust an adverse concentration of the substance in air could occur, responsist of: (a): particle dust respirators, if necessary, combined with an absorption cartridge; (b): filter respirators with absorption cartridge or canister of the right type; (c): fresh-air hoods or masks Build-up of electrostatic charge on the dust particle, may be prevented by bonding and grout. Powder handling equipment such as dust collectors, dryers and mills may require additione. Powder handling equipment such as dust collectors, dryers and mills may require additione. 	this high level of protection. risk. from the worker and ventilation tha signed properly. The design of a ver in when particulates are relatively la lates in the workplace. piratory protection should be consi unding. al protection measures such as exp	t strategically "adds" and tillation system must match rge, a certain proportion will dered. Such protection migh plosion venting.
8.2.1. Appropriate engineering controls	Type of Contaminant:		Air Speed:
	direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)		1-2.5 m/s (200-500 f/min.)
	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 curre	nts
	2: Contaminants of low toxicity or of nuisance value only	2: Contaminants of high toxicity	
	3: Intermittent, low production.	3: High production, heavy us	e
	4: Large hood or large air mass in motion	4: Small hood-local control of	only
	Simple theory shows that air velocity falls rapidly with distance away from the opening of a simpl of distance from the extraction point (in simple cases). Therefore the air speed at the extraction distance from the contaminating source. The air velocity at the extraction fan, for example, shoul crusher dusts generated 2 metres distant from the extraction point. Other mechanical considera apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more	point should be adjusted, accordin d be a minimum of 4-10 m/s (800-2 ations, producing performance defi	gly, after reference to 2000 f/min) for extraction of cits within the extraction
8.2.2. Personal protection			
Eve and face protection	 Safety glasses with side shields. Chemical goggles. Control longer may see a special begand, soft contest longer may should and concentrat. 		

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

Pola Office Powder

	 chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]
Skin protection	See Hand protection below
Hands/feet protection	 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. 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 240 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. 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.
Body protection	See Other protection below
Other protection	 Overalls. P.V.C. apron. Barrier cream. Skin cleansing cream. Eye wash unit.
Thermal hazards	Not Available

Respiratory protection

Particulate. (AS/NZS 1716 & 1715, EN 143:000 & 149:001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	P1 Air-line*	-	PAPR-P1 -
up to 50 x ES	Air-line**	P2	PAPR-P2
up to 100 x ES	-	P3	-
		Air-line*	-
100+ x ES	-	Air-line**	PAPR-P3

* - Negative pressure demand ** - Continuous flow

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

8.2.3. Environmental exposure controls

See section 12

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Fluffy white speckled powder; insoluble in water.		
Physical state	Divided Solid	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 Applicable	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Applicable
Initial boiling point and boiling range (°C)	Not Applicable	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Applicable	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Applicable
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Applicable

Vapour pressure (kPa)	Not Applicable	Gas group	Not Available
Solubility in water (g/L)	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Applicable	VOC g/L	Not Available

9.2. Other information

Not Available

SECTION 10 STABILITY AND REACTIVITY

10.1.Reactivity	See section 7.2
10.2.Chemical stability	 Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
10.3. Possibility of hazardous reactions	See section 7.2
10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

SECTION 11 TOXICOLOGICAL INFORMATION

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Mutagenicity

11.1. Information on toxicological effects

Inhaled	Evidence shows, or practical experience predicts, that the material produces irritation of the respiratory system, in a substantial number of individuals, following inhalation. In contrast to most organs, the lung is able to respond to a chemical insult by first removing or neutralising the irritant and then repairing the damage. The repair process, which initially evolved to protect mammalian lungs from foreign matter and antigens, may however, produce further lung damage resulting in the impairment of gas exchange, the primary function of the lungs. Respiratory tract irritation often results in an inflammatory response involving the recruitment and activation of many cell types, mainly derived from the vascular system. Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled. If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures.			
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. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.			
Skin Contact	Evidence exists, or practical experience predicts, that the material either produc direct contact, and/or produces significant inflammation when applied to the her twenty-four hours or more after the end of the exposure period. Skin irritation m form of contact dermatitis (nonallergic). The dermatitis is often characterised by blistering (vesiculation), scaling and thickening of the epidermis. At the microso	althy intact skin of an ay also be present af y skin redness (eryth	imals, for up to four hours, such inflammation being present iter prolonged or repeated exposure; this may result in a nema) and swelling (oedema) which may progress to	
	(spongiosis) and intracellular oedema of the epidermis. The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wou skin prior to the use of the material and ensure that any external damage is suit			
Eye	The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material	ably protected. ye irritation in a subs the eye(s) of experi emporary redness (s	produce systemic injury with harmful effects. Examine the stantial number of individuals and/or may produce significant mental animals.	
Eye Chronic	The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wou skin prior to the use of the material and ensure that any external damage is suita Evidence exists, or practical experience predicts, that the material may cause e ocular lesions which are present twenty-four hours or more after instillation into Repeated or prolonged eye contact may cause inflammation characterised by fi	ably protected. ye irritation in a subs the eye(s) of experii emporary redness (s ay occur. involving difficult bre	produce systemic injury with harmful effects. Examine the stantial number of individuals and/or may produce significant mental animals. similar to windburn) of the conjunctiva (conjunctivitis); eathing and related systemic problems.	
	The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wou skin prior to the use of the material and ensure that any external damage is suita Evidence exists, or practical experience predicts, that the material may cause e ocular lesions which are present twenty-four hours or more after instillation into Repeated or prolonged eye contact may cause inflammation characterised by temporary impairment of vision and/or other transient eye damage/ulceration ma Long-term exposure to respiratory irritants may result in disease of the airways	ably protected. ye irritation in a subs the eye(s) of experii emporary redness (s ay occur. involving difficult bre	produce systemic injury with harmful effects. Examine the stantial number of individuals and/or may produce significant mental animals. similar to windburn) of the conjunctiva (conjunctivitis); eathing and related systemic problems.	
	The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wou skin prior to the use of the material and ensure that any external damage is suite Evidence exists, or practical experience predicts, that the material may cause e ocular lesions which are present twenty-four hours or more after instillation into Repeated or prolonged eye contact may cause inflammation characterised by the temporary impairment of vision and/or other transient eye damage/ulceration material Long-term exposure to respiratory irritants may result in disease of the airways Limited evidence suggests that repeated or long-term occupational exposure material exposure material exposure of the airways and the repeated or long-term occupational exposure material exposure of the airways and the repeated or long-term occupational exposure of the airways and the repeated or long-term occupational exposure of the airways and the repeated or long-term occupational exposure of the airways and the repeated or long-term occupational exposure of the airways and the repeated or long-term occupational exposure of the airways and the repeated or long-term occupational exposure of the airways and the repeated or long-term occupational exposure of the airways and the repeated or long-term occupational exposure of the airways and the repeated or long-term occupational exposure of the airways and the repeated or long-term occupational exposure of the airways and the repeated or long-term occupational exposure of the airways and the repeated or long-term occupational exposure of the airways and the repeated or long-term occupational exposure of the airways and the repeated or long-term occupational exposure of the airways and the repeated or long-term occupational exposure of the airways and the repeated or long-term occupation and the repeated or long-term occupation and the repeated or long-term occup	ably protected. ye irritation in a subs the eye(s) of experii emporary redness (s ay occur. involving difficult bre ay produce cumulati	produce systemic injury with harmful effects. Examine the stantial number of individuals and/or may produce significant mental animals. similar to windburn) of the conjunctiva (conjunctivitis); eathing and related systemic problems.	
Chronic	The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wou skin prior to the use of the material and ensure that any external damage is suitt Evidence exists, or practical experience predicts, that the material may cause e ocular lesions which are present twenty-four hours or more after instillation into Repeated or prolonged eye contact may cause inflammation characterised by t temporary impairment of vision and/or other transient eye damage/ulceration ma Long-term exposure to respiratory irritants may result in disease of the airways Limited evidence suggests that repeated or long-term occupational exposure m TOXICITY	ably protected. ye irritation in a subs the eye(s) of experii emporary redness (s ay occur. involving difficult bre- iay produce cumulati IRRITATION Not Available	produce systemic injury with harmful effects. Examine the stantial number of individuals and/or may produce significant mental animals. similar to windburn) of the conjunctiva (conjunctivitis); eathing and related systemic problems. ive health effects involving organs or biochemical systems.	
Chronic Pola Office Powder Legend:	The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wou skin prior to the use of the material and ensure that any external damage is suitt Evidence exists, or practical experience predicts, that the material may cause e ocular lesions which are present twenty-four hours or more after instillation into Repeated or prolonged eye contact may cause inflammation characterised by t temporary impairment of vision and/or other transient eye damage/ulceration may Long-term exposure to respiratory irritants may result in disease of the airways Limited evidence suggests that repeated or long-term occupational exposure material TOXICITY Not Available 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2 extracted from RTECS - Register of Toxic Effect of chemical Substances	ably protected. ye irritation in a subs the eye(s) of experiment emporary redness (s ay occur. involving difficult bre- ay produce cumulation IRRITATION Not Available * Value obtained from	produce systemic injury with harmful effects. Examine the stantial number of individuals and/or may produce significant mental animals. similar to windburn) of the conjunctiva (conjunctivitis); eathing and related systemic problems. ive health effects involving organs or biochemical systems.	
Chronic Pola Office Powder	The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wou skin prior to the use of the material and ensure that any external damage is suitt Evidence exists, or practical experience predicts, that the material may cause e ocular lesions which are present twenty-four hours or more after instillation into Repeated or prolonged eye contact may cause inflammation characterised by t emporary impairment of vision and/or other transient eye damage/ulceration mat Long-term exposure to respiratory irritants may result in disease of the airways Limited evidence suggests that repeated or long-term occupational exposure m TOXICITY Not Available 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2 extracted from RTECS - Register of Toxic Effect of chemical Substances	ably protected. ye irritation in a subs the eye(s) of experii emporary redness (s ay occur. involving difficult bre- iay produce cumulati IRRITATION Not Available	produce systemic injury with harmful effects. Examine the stantial number of individuals and/or may produce significant mental animals. similar to windburn) of the conjunctiva (conjunctivitis); eathing and related systemic problems. ive health effects involving organs or biochemical systems.	
Chronic Pola Office Powder Legend: Acute Toxicity	The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wou skin prior to the use of the material and ensure that any external damage is suitt Evidence exists, or practical experience predicts, that the material may cause e ocular lesions which are present twenty-four hours or more after instillation into Repeated or prolonged eye contact may cause inflammation characterised by the temporary impairment of vision and/or other transient eye damage/ulceration may Long-term exposure to respiratory irritants may result in disease of the airways Limited evidence suggests that repeated or long-term occupational exposure or TOXICITY Not Available 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2 extracted from RTECS - Register of Toxic Effect of chemical Substances	ably protected. ye irritation in a subs the eye(s) of experii emporary redness (s ay occur. involving difficult bre- iay produce cumulati IRRITATION Not Available Value obtained from Carcinogenicity	produce systemic injury with harmful effects. Examine the stantial number of individuals and/or may produce significant mental animals. similar to windburn) of the conjunctiva (conjunctivitis); seathing and related systemic problems. ive health effects involving organs or biochemical systems.	
Chronic Chronic Pola Office Powder <i>Legend:</i> Acute Toxicity Skin Irritation/Corrosion Serious Eye	The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wou skin prior to the use of the material and ensure that any external damage is suitt Evidence exists, or practical experience predicts, that the material may cause e ocular lesions which are present twenty-four hours or more after instillation into Repeated or prolonged eye contact may cause inflammation characterised by t temporary impairment of vision and/or other transient eye damage/ulceration ma Long-term exposure to respiratory irritants may result in disease of the airways Limited evidence suggests that repeated or long-term occupational exposure m TOXICITY Not Available 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2 extracted from RTECS - Register of Toxic Effect of chemical Substances Strot - Si	ably protected. ye irritation in a subs the eye(s) of experiment emporary redness (s ay occur. involving difficult bre- tay produce cumulation IRRITATION Not Available * Value obtained from Carcinogenicity Reproductivity	produce systemic injury with harmful effects. Examine the stantial number of individuals and/or may produce significant mental animals. similar to windburn) of the conjunctiva (conjunctivitis); eathing and related systemic problems. ive health effects involving organs or biochemical systems.	

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Aspiration Hazard

седени:

 \sim – Data available but uses not init the criticita for classification \checkmark – Data required to make classification available

🚫 – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

12.1. Toxicity						
Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source	
Not Available	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data					

DO NOT discharge into sewer or waterways.

12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air	
	No Data available for all ingredients	No Data available for all ingredients	

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
	No Data available for all ingredients

12.4. Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

12.5. Results of PBT and vPvB assessment

	Р	В	т
Relevant available data	Not Available	Not Available	Not Available
PBT Criteria fulfilled?	Not Available	Not Available	Not Available

12.6. Other adverse effects

No data available

SECTION 13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product / Packaging disposal	 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. 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.
Waste treatment options	Not Available
Sewage disposal options	Not Available

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant	NO		
HAZCHEM	Not Applicable		
Land transport (ADR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS			
14.1.UN number	Not Applicable		
14.2.Packing group	Not Applicable		
14.3.UN proper shipping name	Not Applicable		
14.4.Environmental hazard	Not Applicable		
14.5. Transport hazard class(es)	Class Not Applicable Subrisk Not Applicable		
14.6. Special precautions for user	Hazard identification (Kemler) Classification code Hazard Label Special provisions	Not Applicable Not Applicable Not Applicable	

Not Applicable

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

Limited quantity

	_	
14.1. UN number	Not Applicable	
14.2. Packing group	Not Applicable	
14.3. UN proper shipping name	Not Applicable	
14.4. Environmental hazard	Not Applicable	
14.5. Transport hazard class(es)	ICAO/IATA Class Not Applicable ICAO / IATA Subrisk Not Applicable ERG Code Not Applicable	
14.6. Special precautions for	Special provisions Cargo Only Packing Instructions Cargo Only Maximum Qty / Pack	Not Applicable Not Applicable Not Applicable
user	Passenger and Cargo Packing Instructions	Not Applicable
	Passenger and Cargo Maximum Qty / Pack	Not Applicable
	Passenger and Cargo Limited Quantity Packing Instructions	Not Applicable
	Passenger and Cargo Limited Maximum Qty / Pack	Not Applicable

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

14.1. UN number	Not Applicable
14.2. Packing group	Not Applicable
14.3. UN proper shipping name	Not Applicable
14.4. Environmental hazard	Not Applicable
14.5. Transport hazard class(es)	IMDG Class Not Applicable IMDG Subrisk Not Applicable
14.6. Special precautions for user	EMS Number Not Applicable Special provisions Not Applicable Limited Quantities Not Applicable

Inland waterways transport (ADN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable	
14.2. Packing group	Not Applicable	
14.3. UN proper shipping name	Not Applicable	
14.4. Environmental hazard	Not Applicable	
14.5. Transport hazard class(es)	Not Applicable Not Applicable	
14.6. Special precautions for user	Classification code Not Applicable Special provisions Not Applicable Limited quantity Not Applicable Equipment required Not Applicable Fire cones number Not Applicable	

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

Not Applicable

If packed as Chemical kits the following classification may be considered if all ICAO/IATA transport requirements are met: Chemical Kit UN3316 - Class 9.

SECTION 15 REGULATORY INFORMATION

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

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable -: 67/548/EEC, 1999/45/EC, 98/24/EC, 92/85/EC, 94/33/EC, 91/689/EEC, 1999/13/EC, Commission Regulation (EU) 2015/830, Regulation (EC) No 1272/2008 and their amendments as well as the following British legislation: - The Control of Substances Hazardous to Health Regulations (COSHH) 2002 - COSHH Essentials - The Management of Health and Safety at Work Regulations 1999

15.2. Chemical safety assessment

For further information please look at the Chemical Safety Assessment and Exposure Scenarios prepared by your Supply Chain if available.

ECHA SUMMARY

National Inventory	Status
Australia - AICS	Υ
Canada - DSL	Υ
Canada - NDSL	Υ
China - IECSC	Υ
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	Υ
Korea - KECI	Υ
New Zealand - NZIoC	Υ
Philippines - PICCS	Υ
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

Full text Risk and Hazard codes

Other information

DSD / DPD label elements



Relevant risk statements are found in section 2.1

Indication(s) of danger Xi

SAFETY ADVICE

SAFETY ADVICE	
S02	Keep out of reach of children.
S26	In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.
S35	This material and its container must be disposed of in a safe way.
S37	Wear suitable gloves.
S39	Wear eye/face protection.
S40	To clean the floor and all objects contaminated by this material, use water and detergent.
S46	If swallowed, seek medical advice immediately and show this container or label.
S56	Dispose of this material and its container at hazardous or special waste collection point.
S64	If swallowed, rinse mouth with water (only if the person is conscious).

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by SDI Limited 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.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 166 Personal eye-protection

EN 340 Protective clothing

EN 374 Protective gloves against chemicals and micro-organisms

EN 13832 Footwear protecting against chemicals

EN 133 Respiratory protective devices

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 LODEL: Init Value LOD: Limit of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index

The information contained in the Safety Data Sheet is based on data considered to be accurate, however, no warranty is expressed or implied regarding the accuracy of the data or the results to be

obtained from the use thereof.

Other information:

Prepared by: SDI Limited 3-15 Brunsdon Street, Bayswater Victoria, 3153, Australia Phone Number: +61 3 8727 7111 Date of preparation/revision: 23rd September 2015 Department issuing SDS: Research and Development Contact: Technical Director

Other information:

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SDI Limited

Version No: 6.1.1.1 Safety Data Sheet (Conforms to Regulations (EC) No 2015/830) Issue Date: 18/03/2016 Print Date: 23/03/2016 Initial Date: Not Available L.REACH.GBR.EN

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

1.1.Product Identifier

Product name	Gingival Barrier
Synonyms	Not Available
Other means of identification	Not Available

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

Relevant identified uses	For tissue isolation by dental professionals.
Uses advised against	Not Applicable

1.3. Details of the supplier of the safety data sheet

Registered company name	SDI Limited	SDI Brazil Industria E Comercio Ltda	SDI Germany GmbH
Address	3-15 Brunsdon Street VIC Bayswater 3153 Australia	Rua Dr. Virgilio de Carvalho Pinto, 612 São Paulo CEP 05415-020 Brazil	Hansestrasse 85 Cologne D-51149 Germany
Telephone	+61 3 8727 7111 (Business Hours)	+55 11 3092 7100	+49 0 2203 9255 0
Fax	+61 3 8727 7222	+55 11 3092 7101	+49 0 2203 9255 200
Website	www.sdi.com.au	www.sdi.com.au	www.sdi.com.au
Email	info@sdi.com.au	brasil@sdi.com.au	germany@sdi.com.au
Registered company name	SDI (North America) Inc.		
Address	1279 Hamilton Parkway IL Itasca 60143 United States		
Telephone	+1 630 361 9200 (Business hours)		
Fax	Not Available		
Website	Not Available		
Email	USA.Canada@sdi.com.au		

1.4. Emergency telephone number

Association / Organisation	SDI Limited	Not Available	Not Available
Emergency telephone numbers	+61 3 8727 7111	Not Available	Not Available
Other emergency telephone numbers	ray.cahill@sdi.com.au	Not Available	Not Available
Association / Organisation Not Available			
Association / Organisation	Not Available		
Emergency telephone numbers	+61 3 8727 7111		
Other emergency telephone numbers	Not Available		

SECTION 2 HAZARDS IDENTIFICATION

2.1.Classification of the substance or mixture

Considered a dangerous mixture according to directive 1999/45/EC, Reg. (EC) No 1272/2008 (if applicable) and their amendments. Not classified as Dangerous Goods for transport purposes.

DSD classification	In case of mixtures, classification has been prepared by following DPD (Directive 1999/45/EC) and CLP Regulation (EC) No 1272/2008 regulations
DPD classification ^[1]	R43 May cause SENSITISATION by skin contact.
Legend:	1. Classification by vendor; 2. Classification drawn from EC Directive 67/548/EEC - Annex I ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI

Classification according to regulation (EC) No 1272/2008 [CLP] ^[1]	Skin Sensitizer Category 1
Legend:	1. Classification by vendor; 2. Classification drawn from EC Directive 67/548/EEC - Annex I ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI
2.2. Label elements	
CLP label elements	
SIGNAL WORD	WARNING
Hazard statement(s)	
H317	May cause an allergic skin reaction.

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary statement(s) Response

P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

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

2.3. Other hazards

May produce discomfort of the eyes and skin*.

REACh - Art.57-59: The mixture does not contain Substances of Very High Concern (SVHC) at the SDS print date.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1.Substances

See 'Composition on ingredients' in Section 3.2

3.2.Mixtures

1.CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classification according to directive 67/548/EEC [DSD]	Classification according to regulation (EC) No 1272/2008 [CLP]
1.Not Available 2.Not Available 3.Not Available 4.Not Available	75-85	acrylic monomer	Not Applicable	Not Applicable
Legend:		ion by vendor; 2. Cla ion drawn from C&L		3. Classification drawn from EC Directive 1272/2008 - Annex VI

SECTION 4 FIRST AID MEASURES

4.1. Description of first aid measures

General	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. 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. If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary. Seek medical attention.
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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 fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.
Ingestion	Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

5.1. Extinguishing media

Foam.

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

5.2. Special hazards arising from the substrate or mixture

Fire Incompatibility None known.

5.3. Advice for firefighters

5.3. Advice for irrelighters	
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 fire. Equipment should be thoroughly decontaminated after use.
Fire/Explosion Hazard	 The material is not readily combustible under normal conditions. However, it will break down under fire conditions and the organic component may burn. Not considered to be a significant fire risk. Heat may cause expansion or decomposition with violent rupture of containers. Decomposes on heating and may produce toxic fumes of carbon monoxide (CO). May emit acrid smoke. Other decomposition products include; carbon dioxide (CO2)May emit corrosive fumes.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

See section 8

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

Minor Spills	 Clean up all spills immediately. Avoid contact with skin and eyes. Wear impervious gloves and safety goggles. Trowel up/scrape up. Place spilled material in clean, dry, sealed container. Flush spill area with water.
Major Spills	 Minor hazard. Clear area of personnel. Alert Fire Brigade and tell them location and nature of hazard. Control personal contact with the substance, by using protective equipment as required. Prevent spillage from entering drains or water ways. Contain spill with sand, earth or vermiculite. Collect recoverable product into labelled containers for recycling. Absorb remaining product with sand, earth or vermiculite and place in appropriate containers for disposal. Wash area and prevent runoff into drains or waterways. If contamination of drains or waterways occurs, advise emergency services.

6.4. Reference to other sections

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

SECTION 7 HANDLING AND STORAGE

7.1. 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. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. DO NOT allow material to contact humans, exposed food or food utensils. Avoid contact with incompatible materials. 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.
Fire and explosion protection	See section 5
Other information	Store between 10 and 25 deg. C. Do not store in direct sunlight.

7.2. Conditions for safe storage, including any incompatibilities

Suitable container	DO NOT repack. Use containers supplied by manufacturer only. Check that containers are clearly labelled and free from leaks
Storage incompatibility	Avoid storage with reducing agents.

7.3. Specific end use(s)

See section 1.2

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

DERIVED NO EFFECT LEVEL (DNEL)

Not Available

PREDICTED NO EFFECT LEVEL (PNEC)

Not Available

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	s	STEL	Peak		Notes
Not Available	Not Available	Not Available	Not Available	N	Not Available	Not Available	e	Not Available
EMERGENCY LIMITS								
Ingredient	Material name	TE	EL-1		TEEL-2		TEEL-3	
Gingival Barrier	Not Available	Not	t Available	1	Not Available		Not Availal	ble
Ingredient	Original IDLH			Re	evised IDLH			
acrylic monomer	Not Available			Not	ot Available			

MATERIAL DATA

8.2. Exposure controls

	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 st "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventila the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances.	ation system must match . If risk of overexposure
8.2.1. Appropriate engineering controls	exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or of contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of free to effectively remove the contaminant.	•
	contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of free	•
	contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of free to effectively remove the contaminant.	esh circulating air requir

	direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into 200-500 f/min.)				
	grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid 2.5-10 m/s (500-200 f/min.)				
	Within each range the appropriate value depends on:				
	Lower end of the range Upper end of the range				
1: Room air currents minimal or favourable to capture 1: Disturbing room air currents					
	2: Contaminants of low toxicity or of nuisance value only. 2: Contaminants of high toxicity				
	3: Intermittent, low production. 3: High production, heavy use				
	4: Large hood or large air mass in motion 4: Small hood-local control only				
	of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, 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/ solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance defice apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed	min) for extraction of tits within the extraction			
8.2.2. Personal protection					
Eye and face protection	No special equipment for minor exposure i.e. when handling small quantities. CTHERWISE: Safety glasses with side shields. 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]				
	See Hand protection below				
Skin protection	See Hand protection below				
Skin protection Hands/feet protection	 Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber 				
	 Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber 				
Hands/feet protection	 Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber Rubber Gloves 				

8.2.3. Environmental exposure controls

See section 12

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Blue coloured viscous/ flowable paste with ester-like odour.		
Physical state	Free-flowing Paste	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 Applicable
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)	Not Available	pH as a solution (1%)	Not Available

Vapour density (Air = 1) Not Available

VOC g/L Not Available

9.2. Other information

Not Available

SECTION 10 STABILITY AND REACTIVITY

10.1.Reactivity	See section 7.2
10.2. Chemical stability	Product is considered stable and hazardous polymerisation will not occur.
10.3. Possibility of hazardous reactions	See section 7.2
10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

SECTION 11 TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.			
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. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.			
Skin Contact	Limited evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.			
Eye	Limited evidence exists, or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals and/or is expected to produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.			
Chronic	There exists limited evidence that shows that skin contact with the material is capable either of inducing a sensitisation reaction in a significant number of individuals, and/or of producing positive response in experimental animals.			
Gingival Barrier	TOXICITY IRRITATION Not Available Not Available			
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances			
Acute Toxicity	Carcinogenicity			

Acute Toxicity	0	Carcinogenicity	\odot
Skin Irritation/Corrosion	\otimes	Reproductivity	\otimes
Serious Eye Damage/Irritation	\otimes	STOT - Single Exposure	\otimes
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	\otimes
Mutagenicity	\otimes	Aspiration Hazard	\otimes
		- J	– Data available but does not fill the criteria for classification – Data required to make classification available

Data required to make classification available

🚫 – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

12.1. Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data				

DO NOT discharge into sewer or waterways.

12.2. Persistence and degradability

Ingredient Persistence: Water/Soil Persistence: Air

No Doto	available	for all in	aradianta	

No Data available for all ingredients

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation	
	No Data available for all ingredients	
12.4. Mobility in soil		

Ingredient Mobility No Data available for all ingredients

12.5. Results of PBT and vPvB assessment

	Р	В	т
Relevant available data	Not Available	Not Available	Not Available
PBT Criteria fulfilled?	Not Available	Not Available	Not Available

12.6. Other adverse effects

No data available

SECTION 13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product / Packaging disposal	consult State Land Waste Management Authority for disposal. ury residue in an authorised landfill.	
Waste treatment options	Not Available	
Sewage disposal options	Not Available	

SECTION 14 TRANSPORT INFORMATION

Labels Required

•			
Marine Pollutant	NO		
HAZCHEM	Not Applicable		
Land transport (ADR): NO	REGULATED FOR TRANSPO	DRT OF DANGEROUS GOODS	
14.1.UN number	Not Applicable		
14.2.Packing group	Not Applicable		
14.3.UN proper shipping name	Not Applicable		
14.4.Environmental hazard	Not Applicable		
14.5. Transport hazard class(es)	Class Not Applicable Subrisk Not Applicable		
14.6. Special precautions for user	Hazard identification (Kemler) Classification code Hazard Label Special provisions Limited quantity	Not Applicable Not Applicable Not Applicable Not Applicable	

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

Not Applicable		
Not Applicable		
Not Applicable		
Not Applicable		
ICAO/IATA Class Not Applicable ICAO / IATA Subrisk Not Applicable ERG Code Not Applicable		
Special provisions Cargo Only Packing Instructions Cargo Only Maximum Qty / Pack Passenger and Cargo Packing Instructions	Not Applicable Not Applicable Not Applicable	
	Not Applicable Not Applicable ICAO/IATA Class ICAO/IATA Class Not Applicable ICAO / IATA Subrisk Not Applicable ERG Code Not Applicable Special provisions Cargo Only Packing Instructions Cargo Only Maximum Qty / Pack	

ĺ	Passenger and Cargo Maximum Qty / Pack	Not Applicable
	Passenger and Cargo Limited Quantity Packing Instructions	Not Applicable
	Passenger and Cargo Limited Maximum Qty / Pack	Not Applicable

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

14.1. UN number	Not Applicable
14.2. Packing group	Not Applicable
14.3. UN proper shipping name	Not Applicable
14.4. Environmental hazard	Not Applicable
14.5. Transport hazard class(es)	IMDG Class Not Applicable IMDG Subrisk Not Applicable
14.6. Special precautions for user	EMS Number Not Applicable Special provisions Not Applicable Limited Quantities Not Applicable

Inland waterways transport (ADN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable
14.2. Packing group	Not Applicable
14.3. UN proper shipping name	Not Applicable
14.4. Environmental hazard	Not Applicable
14.5. Transport hazard class(es)	Not Applicable Not Applicable
	Classification code Not Applicable
	Special provisions Not Applicable
14.6. Special precautions for user	Limited quantity Not Applicable
	Equipment required Not Applicable
	Fire cones number Not Applicable

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

Not Applicable

SECTION 15 REGULATORY INFORMATION

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

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable -: 67/548/EEC, 1999/45/EC, 98/24/EC, 92/85/EC, 94/33/EC, 91/689/EEC, 1999/13/EC, Commission Regulation (EU) 2015/830, Regulation (EC) No 1272/2008 and their amendments as well as the following British legislation: - The Control of Substances Hazardous to Health Regulations (COSHH) 2002 - COSHH Essentials - The Management of Health and Safety at Work Regulations 1999

15.2. Chemical safety assessment

For further information please look at the Chemical Safety Assessment and Exposure Scenarios prepared by your Supply Chain if available.

ECHA SUMMARY

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	Y
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
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

Full text Risk and Hazard codes

Other information

DSD / DPD label elements



Relevant risk statements are found in section 2.1

Indication(s) of danger Xi SAFETY ADVICE S02 Keep out of reach of children. S23 Do not breathe gas/fumes/vapour/spray. S24 Avoid contact with skin. S35 This material and its container must be disposed of in a safe way. S37 Wear suitable gloves. S40 To clean the floor and all objects contaminated by this material, use water and detergent. S46 If swallowed, seek medical advice immediately and show this container or label S56 Dispose of this material and its container at hazardous or special waste collection point.

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by SDI Limited 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.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 166 Personal eye-protection

EN 340 Protective clothing

EN 374 Protective gloves against chemicals and micro-organisms

EN 13832 Footwear protecting against chemicals

EN 133 Respiratory protective devices

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

The information contained in the Safety Data Sheet is based on data considered to be accurate, however, no warranty is expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof.

Other information:

Prepared by: SDI Limited 3-15 Brunsdon Street, Bayswater Victoria, 3153, Australia

Phone Number: +61 3 8727 7111

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Department issuing SDS: Research and Development

Contact: Technical Director