

SDI Limited Version No: 12.1

Safety data sheet according to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758

Issue Date: **10/03/2023** Print Date: **21/11/2023** L.REACH.GB.EN

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

1.1. Product Identifier	I.1. Product Identifier		
Product name	Pola Office Powder		
Chemical Name	Not Applicable		
Synonyms	Not Available		
Chemical formula	Not Applicable		
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	No specific uses advised against are identified.	

1.3. Details of the manufacturer or supplier of the safety data sheet

Registered company name	SDI Limited	SDI (North America) Inc.	SDI Germany GmbH			
Address	3-15 Brunsdon Street Bayswater VIC 3153 Australia	1279 Hamilton Parkway Itasca IL 60143 United States	Hansestrasse 85 Cologne D-51149 Germany			
Telephone	+61 3 8727 7111	+61 3 8727 7111 +1 630 361 9200 +49 0 2203 9255 0				
Fax	+61 3 8727 7222	+61 3 8727 7222 Not Available +49 0 2203 9255 200				
Website	www.sdi.com.au www.sdi.com.au		www.sdi.com.au			
Email	info@sdi.com.au USA.Canada@sdi.com.au germany@sdi.com.au		germany@sdi.com.au			
Registered company name	Registered company name SDI HOLDINGS PTY LTD DO					
Address	Rua Dr. Reinaldo Schmithausen 3141 – Cordeiros Itajaí – SC – CEP 88310-004 Brazil					
Telephone	+55 11 3092 7100					
Fax	Not Available					
Website	http://www.sdi.com.au/					
Email	Brasil@sdi.com.au					

1.4. Emergency telephone number

Association / Organisation	SDI Limited	CHEMWATCH EMERGENCY RESPONSE (24/7)	
Emergency telephone numbers	131126 Poisons Information Centre	+44 20 3901 3542	
Other emergency telephone numbers	+61 3 8727 7111	+44 808 164 9592	

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

SECTION 2 Hazards identification

2.1. Classification of the subst	2.1. Classification of the substance or mixture	
Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567 [1]	H315 - Skin Corrosion/Irritation Category 2, H319 - Serious Eye Damage/Eye Irritation Category 2, H335 - Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3	
Legend:	1. Classification by vendor; 2. Classification drawn from GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567	

2.2. Label elements

Hazard pictogram(s)	

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	Jse only outdoors or in a well-ventilated area.	
P261	Avoid breathing dust/fumes.	
P280	Wear protective gloves, protective clothing, eye protection and face protection.	
P264	Wash all exposed external body areas thoroughly after handling.	

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 to authorised hazardous or special waste collection point in accordance with any local regulation.

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	Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567	SCL / M-Factor	Nanoform Particle Characteristics
1. 7631-86-9 2.231-545-4 3.Not Available 4.01-2119486866-17- XXXX 01-2119379499-16-XXXX	65-75	<u>silica</u> amorphous	EUH210 ^[1]	Not Available	Not Available
Legend:	1. Classification by vendor; 2. Classification drawn from GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567; 3. Classification drawn from C&L * EU IOELVs available; [e] Substance identified as having endocrine disrupting properties				

SECTION 4 First aid measures

.1. Description of first aid mea	asures
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 Observe the patient carefully. Never give liquid to a person showing	d or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. g signs of being sleepy or with reduced awareness; i.e. becoming unconscious. rovide liquid slowly and as much as casualty can comfortably drink.
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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.

Fire Incompatibility	Reacts vigorously with alkali metals
dvice 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 from path of 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 materialis may cause fires and / or dust explosions. Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suppended 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 r form flammable dust clouds; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of a explosion. In the same way as gases and vapours, dusts in the form of a cloud are only ignitable over a range of concentration; in principle, the concepts of lower explosive limit (LEL) and upper explosive limit (UEL) are applicable to dust clouds but only the LEL is often called the "Minimum Explosible Concentration", MEC). When processed with flammable liquids/vapors/mists.jgnitable (hybrid) mixtures may be formed with combustible dusts. Ignitable mixtures will increase the rate of explosion pressure rise and explosion enters the surrounding area, it will disturb any settled dust layers, forming second dust cloud, and often initiate a much larger secondary explosion. All large scale explosions have resulted from chain reactions of thype. A dust explosion may reacte alloy by hording and grounding. A dust explosion dust early by bu

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

May emit poisonous fumes. May emit corrosive fumes.

See section 8

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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 storage, including any incompatibilities

Suitable container	DO NOT repack. Use containers supplied by manufacturer only.
Storage incompatibility	Avoid strong acids, bases.
Hazard categories in accordance with Regulation (EC) No 1272/2008	Not Available
Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of	Not Available

7.3. Specific end use(s)

See section 1.2

SECTION 8 Exposure controls / personal protection

8.1. Control parameters

Ingredient	DNELs Exposure Pattern Worker	PNECs Compartment
silica amorphous	Inhalation 0.3 mg/m³ (Local, Chronic) Inhalation 15 mg/m³ (Local, Acute) Oral 3.29 mg/kg bw/day (Systemic, Chronic) *	Not Available

* Values for General Population

INGREDIENT DATA							
Source	Ingredient	Material name TW		TWA	STEL	Peak	Notes
UK Workplace Exposure Limits (WELs).	silica amorphous	Silica, fused respirab	Silica, fused respirable dust		Not Available	Not Available	Not Available
UK Workplace Exposure Limits (WELs).	silica amorphous	Diatomaceous earth, natural, respirable dust		1.2 mg/m3	Not Available	Not Available	Not Available
Emergency Limits							
Ingredient	TEEL-1		TEEL-2		TEEL-3	TEEL-3	
silica amorphous	18 mg/m3		200 mg/m3		1,200 mg/	1,200 mg/m3	
silica amorphous	18 mg/m3		100 mg/m3		630 mg/m	630 mg/m3	
silica amorphous	120 mg/m3		1,300 mg/m3		7,900 mg/	7,900 mg/m3	
silica amorphous	45 mg/m3		500 mg/m3		3,000 mg/	3,000 mg/m3	
silica amorphous	18 mg/m3 740		740 mg/m3		4,500 mg/	4,500 mg/m3	
Ingredient	Original IDLH			Revised IDLH			
silica amorphous	3,000 mg/m3		Not Available				

MATERIAL DATA

8.2. Exposure controls

8.2. Exposure controls					
8.2.1. Appropriate engineering	 Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction. Exhaust ventilation should be designed to prevent accumulation and recirculation of particulates in the workplace. If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered. Such protection might consist 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 grounding. Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh				
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 If/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 currents			
	2: Contaminants of low toxicity or of nuisance value only	2: Contaminants of high toxicity			
	3: Intermittent, low production.	3: High production, heavy use			
	4: Large hood or large air mass in motion	4: Small hood-local control only			
Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocit with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point sho accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example 4-10 m/s (800-2000 ft/min) for extraction of crusher dusts generated 2 metres distant from the extraction point. Other me producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiple more when extraction systems are installed or used.					
8.2.2. Individual protection measures, such as personal protective equipment					
Eye and face protection	 Safety glasses with side shields. Chemical goggles. [AS/NZS 1337.1, EN166 or national e Contact lenses may pose a special hazard; soft contact l the wearing of lenses or restrictions on use, should be cr and adsorption for the class of chemicals in use and an their removal and suitable equipment should be readily a remove contact lens as soon as practicable. Lens should a clean environment only after workers have washed har 	enses may absorb and concentrate irritants. A written po reated for each workplace or task. This should include a r account of injury experience. Medical and first-aid person wailable. In the event of chemical exposure, begin eye irr I be removed at the first signs of eye redness or irritation	eview of lens absorption nel should be trained in igation immediately and - lens should be removed in		
Eye and face protection	 Chemical goggles. [AS/NZS 1337.1, EN166 or national e Contact lenses may pose a special hazard; soft contact l the wearing of lenses or restrictions on use, should be cr and adsorption for the class of chemicals in use and an their removal and suitable equipment should be readily a remove contact lens as soon as practicable. Lens should 	enses may absorb and concentrate irritants. A written po reated for each workplace or task. This should include a r account of injury experience. Medical and first-aid person wailable. In the event of chemical exposure, begin eye irr I be removed at the first signs of eye redness or irritation	eview of lens abs nel should be trai igation immediate - lens should be r		

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. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended. Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: - frequency and duration of contact, - chemical resistance of glove material, e. glove thickness and - detertity 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 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. As do min 4.323 2161.10.1 or national equivalent) is recommended Secone glove should be replaced. As do min - 230 min + 733-96 in any application, gloves are reated as: - Excellent when breakthrough time > 20 min - Excellent when breakthrough time > 20 min - Fair when breakthrough time > 20 min - Fair when breakthrough time > 20 min - Fair when breakthrough time > 20 min - Socie glove material adgrades - Sor glove with a glove with a glove through model Levelent when breakthrough time > 20 min - Fair when breakthrough time > 20 min - Fair when breakthrough tim
Body protection	See Other protection below
Other protection	 Overalls. P.V.C apron. Barrier cream. Skin cleansing cream. Eye wash unit.

Respiratory protection

Type -P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, 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)

· Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.

• The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).

Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.

Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.
 Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)

 \cdot Use approved positive flow mask if significant quantities of dust becomes airborne.

· Try to avoid creating dust conditions.

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	F

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 (°C)	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	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Applicable	VOC g/L	Not Available
Nanoform Solubility	Not Available	Nanoform Particle Characteristics	Not Available
Particle Size	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

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. Effects on lungs are significantly enhanced in the presence of respirable particles. Overexposure to respirable dust may produce wheezing, coughing and breathing difficulties leading to or symptomatic of impaired respiratory function.
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 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 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 wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Eye	Evidence exists, or practical experience predicts, that the material maproduce significant ocular lesions which are present twenty-four hour Repeated or prolonged eye contact may cause inflammation charact (conjunctivitis); temporary impairment of vision and/or other transient	erised by temporary redness (similar to windburn) of the conjunctiva
Chronic	Long-term exposure to respiratory irritants may result in disease of th Limited evidence suggests that repeated or long-term occupational e biochemical systems.	e airways involving difficult breathing and related systemic problems. xposure may produce cumulative health effects involving organs or
	ΤΟΧΙΟΙΤΥ	IRRITATION
Pola Office Powder	Not Available	Not Available
	τοχιζιτγ	IRRITATION
	dermal (rat) LD50: >2000 mg/kg ^[1]	Eye (rabbit): non-irritating ** [Grace]
silica amorphous	Inhalation(Rat) LC50: >0.09<0.84 mg/l4h ^[1]	Eye: no adverse effect observed (not irritating) ^[1]
	Oral (Rat) LD50: >1000 mg/kg ^[1]	Skin (rabbit): non-irritating *
		Skin: no adverse effect observed (not irritating) ^[1]
Legend:	Value obtained from Europe ECHA Registered Substances - Acute specified data extracted from RTECS - Register of Toxic Effect of che	e toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise
SILICA AMORPHOUS	effects were reversible. [PATTYS] For silica amorphous: Derived No Adverse Effects Level (NOAEL) in the range of 1000 mg/ In humans, synthetic amorphous silica (SAS) is essentially non-toxic evidence of adverse health effects due to SAS. Repeated exposure (drying/cracking of the skin. When experimental animals inhale synthetic amorphous silica (SAS) vast majority of SAS is excreted in the faeces and there is little accurr via urine without modification in animals and humans. SAS is not exp After ingestion, there is limited accumulation of SAS in body tissues a but appears to be insignificant in animals and humans. SASs injected indication of metabolism of SAS in animals or humans based on cher soluble in physiological media and the soluble chemical species that Both the mammalian and environmental toxicology of SASs are signi of solubility and particle size. SAS has no acute intrinsic toxicity by in were caused by the presence of high numbers of respirable particles representative of exposure to commercial SASs and should not be us cause dryness and cracking, SAS is not a skin or eye irritant, and it is Repeated-dose and chronic toxicity studies confirm the absence of to Long-term inhalation of SAS caused some adverse effects in animals which subsided after exposure. Numerous repeated-dose, subchronic and chronic inhalation toxicity concentrations ranging from 0.5 mg/m3 to 150 mg/m3. Lowest-obser mg/m3. When available, the no-observed adverse effect levels (NOA explained by different particle size, and therefore the number of parti- does the NOAEL/LOAEL. Neither inhalation nor oral administration caused neoplasms (tumour assays. SAS does not impair development of the foetus. Fertility was were not affected. For Synthetic Amorphous Silica (SAS) Repeated dose toxicity Oral (rat), 13 weeks, Lowest Observed Effect Level (LOEL) =1. days, LOEL = 1 mg/m3 based on reversible effects in the lungs and e For silane treated synthetic amorphous silica: Repeated dose toxicity: oral (rat), 28-d, diet, no significant treatmen	by mouth, skin or eyes, and by inhalation. Epidemiology studies show little without personal protection) may cause mechanical irritation of the eye and dust, it dissolves in the lung fluid and is rapidly eliminated. If swallowed, the nulation in the body. Following absorption across the gut, SAS is eliminated bected to be broken down (metabolised) in mammals. and rapid elimination occurs. Intestinal absorption has not been calculated, d subcutaneously are subjected to rapid dissolution and removal. There is no mical structure and available data. In contrast to crystalline silica, SAS is are formed are eliminated via the urinary tract without modification. ficantly influenced by the physical and chemical properties, particularly those halation. Adverse effects, including suffocation, that have been reported generated to meet the required test atmosphere. These results are not sed for human risk assessment. Though repeated exposure of the skin may is not a sensitiser. wicity when SAS is swallowed or upon skin contact. Is (increases in lung inflammation, cell injury and lung collagen content), all of studies have been conducted with SAS in a number of species, at airborne ved adverse effect levels (LOAELs) were typically in the range of 1 to 50 ELs) were between 0.5 and 10 mg/m3. The difference in values may be cles administered per unit dose. In general, as particle size decreases so s). SAS is not mutagenic in vitro. No genotoxicity was detected in in vivo on the specifically studied, but the reproductive organs in long-term studies and specifically studied, but the reproductive organs in long-term studies and shows and any labesed on mild reversible effects in the lungs. Inhalation (rat), 90 affects in the nasal cavity.

Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	×	Reproductivity	×
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✓
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×
		Legend: 🗙 – Data either r	not available or does not fill the criteria for classification

Evidence of carcinogenicity may be inadequate or limited in animal testing.

X − Data either not available or does not fill the criteria for classification → Data available to make classification

11.2 Information on other hazards

11.2.1. Endocrine disrupting properties

No evidence of endocrine disrupting properties were found in the current literature.

See Section 11.1

SECTION 12 Ecological information

12.1. Toxicity Endpoint Test Duration (hr) Species Value Source Pola Office Powder Not Not Not Not Available Not Available Available Available Available Endpoint Test Duration (hr) Value Source Species EC50 2 72h Algae or other aquatic plants 14.1mg/l 48h 2 EC50 Crustacea >86mg/l silica amorphous 2 EC50 96h Algae or other aquatic plants 217.576mg/l LC50 96h Fish 1033.016mg/l 2 EC0(ECx) 24h Crustacea >=10000mg/l 1 Legend: Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 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
silica amorphous	LOW	LOW

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
silica amorphous	LOW (LogKOW = 0.5294)

12.4. Mobility in soil

Ingredient	Mobility
silica amorphous	LOW (KOC = 23.74)

12.5. Results of PBT and vPvB assessment

	Р	В	т
Relevant available data	Not Available	Not Available	Not Available
PBT	X	×	×
vPvB	×	×	×
PBT Criteria fulfilled?			No
vPvB			No

12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties were found in the current literature.

12.7. Other adverse effects

No evidence of ozone depleting properties were found in the current literature.

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 or ID number	Not Applicable					
14.2. UN proper shipping name	Not Applicable					
14.3. Transport hazard	Class	Not Appli	cable			
class(es)	Subsidiary Hazard	Not Appli	cable			
14.4. Packing group	Not Applicable					
14.5. Environmental hazard	Not Applicable					
	Hazard identification	(Kemler)	Not Applicable			
	Classification code		Not Applicable			
14.6. Special precautions for	Hazard Label		Not Applicable			
user	Special provisions		Not Applicable			
	Limited quantity		Not Applicable			
	Tunnel Restriction Co	ode	Not Applicable			

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

14.1. UN number	Not Applicable		
14.2. UN proper shipping name	Not Applicable		
	ICAO/IATA Class	Not Applicable	
14.3. Transport hazard class(es)	ICAO / IATA Subsidiary Hazard	Not Applicable	
01000(00)	ERG Code	Not Applicable	
14.4. Packing group	Not Applicable		
14.5. Environmental hazard	Not Applicable		
	Special provisions		Not Applicable
	Cargo Only Packing Instructions		Not Applicable
	Cargo Only Maximum Qty / Pack		Not Applicable
14.6. Special precautions for user	Passenger and Cargo Packing Instructions		Not Applicable
u361	Passenger and Cargo Maximum Qty / Pack		Not Applicable
	Passenger and Cargo Limited Quantity Packing Instructions		Not Applicable
	Passenger and Cargo Limited Ma	ximum Qty / Pack	Not Applicable

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

14.1. UN number	Not Applicable		
14.2. UN proper shipping name	Not Applicable		
14.3. Transport hazard class(es)	IMDG Class IMDG Subsidiary Haza	Not Applicable rd Not Applicable	
14.4. Packing group	Not Applicable		
14.5 Environmental hazard	Not Applicable		
14.6. Special precautions for user	Special provisions	Not Applicable Not Applicable Not Applicable	

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

14.1. UN number	Not Applicable			
14.2. UN proper shipping name	Not Applicable			
14.3. Transport hazard class(es)	Not Applicable Not Applicable			
14.4. Packing group	Not Applicable			
14.5. Environmental hazard	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

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

Not Applicable

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

Product name	Group
silica amorphous	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
silica amorphous	Not Available

If packed as Chemical kits the following classification may be considered if all ICAO/IATA transport requirements are met: Chemical Kit UN3316 - Class 9, SP A44 & A163.

SECTION 15 Regulatory information

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

silica amorphous is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

Great Britain GB Biocidal Active Substances

Great Britain GB mandatory classification and labelling (GB MCL) technical reports

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

UK Workplace Exposure Limits (WELs).

Additional Regulatory Information

Not Applicable

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC, - 2010/75/EU; Commission Regulation (EU) 2020/878; Regulation (EC) No 1272/2008 as updated through ATPs.

Information according to 2012/18/EU (Seveso III):

Seveso Category Not Available

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

National Inventory Status

National Inventory	Status	
Australia - AIIC / Australia Non-Industrial Use	Yes	
Canada - DSL	Yes	
Canada - NDSL	Yes	
China - IECSC	Yes	
Europe - EINEC / ELINCS / NLP	Yes	
Japan - ENCS	Yes	
Korea - KECI	Yes	
New Zealand - NZIoC	Yes	
Philippines - PICCS	Yes	
USA - TSCA	Yes	
Taiwan - TCSI	Yes	
Mexico - INSQ	Yes	
Vietnam - NCI	Yes	
Russia - FBEPH	Yes	
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.	

SECTION 16 Other information

Revision Date 10/0)/03/2023
Initial Date 25/0	5/09/2015

Full text Risk and Hazard codes

SDS Version Summary

Version

Date of Update

Sections Updated

Continued...

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Pola Office Powder

Version	Date of Update	Sections Updated
11.1	23/12/2022	Classification review due to GHS Revision change.
12.1	10/03/2023	Classification change due to full database hazard calculation/update.

Other information

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
- ▶ ES: Exposure Standard
- OSF: Odour Safety Factor
- NOAEL: No Observed Adverse Effect Level
- LOAEL: Lowest Observed Adverse Effect Level
- TLV: Threshold Limit Value
- LOD: Limit Of Detection
- OTV: Odour Threshold Value
- BCF: BioConcentration Factors
- BEI: Biological Exposure Index
- DNEL: Derived No-Effect Level
- PNEC: Predicted no-effect concentration
- AIIC: Australian Inventory of Industrial Chemicals
- DSL: Domestic Substances List
- NDSL: Non-Domestic Substances List
- IECSC: Inventory of Existing Chemical Substance in China
- ▶ EINECS: European INventory of Existing Commercial chemical Substances
- ELINCS: European List of Notified Chemical Substances
- NLP: No-Longer Polymers
- ENCS: Existing and New Chemical Substances Inventory
- KECI: Korea Existing Chemicals Inventory
- NZIoC: New Zealand Inventory of Chemicals
- PICCS: Philippine Inventory of Chemicals and Chemical Substances
- TSCA: Toxic Substances Control Act
- TCSI: Taiwan Chemical Substance Inventory
- INSQ: Inventario Nacional de Sustancias Químicas
- NCI: National Chemical Inventory
- ▶ FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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:

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