StanleyBlack&Decker

Stanley Chalks Stanley Black & Decker

Chemwatch: 23-2901 Version No: 3.1.1.1 Safety Data Sheet according to WHS and ADG requirements Chemwatch Hazard Alert Code: 4 Issue Date: 11/01/2019

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

Product Identifier

Product name	Stanley Chalks	
Chemical Name	Not Applicable	
Synonyms	Stanley Black Chalk; Stanley Blue Chalk; Stanley Red Chalk; Stanley White Chalk	
Chemical formula	Not Applicable	
Other means of identification	Not Available	

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

Chalks.

Relevant identified uses

Use according to manufacturer's directions.

Details of the supplier of the safety data sheet

Registered company name	Stanley Black & Decker
Address	Level 2 / 810 Whitehorse Road Box Hill VIC 3128 Australia
Telephone	1800 338 002
Fax	1800 080 898
Website	www.stanleyblackanddecker.com
Email	anzcustfeedback@sbdinc.com

Emergency telephone number

Association / Organisation	Not Available	CHEMWATCH EMERGENCY RESPONSE
Emergency telephone numbers	1800 039 008	+61 2 9186 1132
Other emergency telephone numbers	+612 9186 1132	+61 1800 951 288

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

SECTION 2 Hazards identification

Classification of the substance or mixture

Poisons Schedule	Not Applicable	
Classification ^[1]	Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 1, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation)	
Legend:	1. Classified by Chernwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI	

Label elements

H

Hazard pictogram(s)	

Danger

Hazard statement(s)	
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

Precautionary statement(s) Prevention

Signal word

Page 2 of 11

P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/	
P261	Avoid breathing dust/fumes.	
Precautionary statement(s) Res	sponse	
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/	
P302+P352	IF ON SKIN: Wash with plenty of water.	
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) Sto	rage	
P405	Store locked up.	
P403+P233	Store in a well-ventilated place. Keep container tightly closed.	

Precautionary statement(s) Disposal

Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 Composition / information on ingredients

P501

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
471-34-1	>70	calcium carbonate
14808-60-7		silica crystalline - quartz
Not Available	<30	pigments, as
57455-37-5		C.I. Pigment Blue 29
Not Available		(Blue Chalk)
1333-86-4		carbon black
Not Available		(Black Chalk)
1317-60-8		haematite
Not Available		(Red Chalk)
546-93-0		magnesium carbonate
Not Available		(White Chalk)

SECTION 4 First aid measures

Description of first aid measures

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. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor, without delay.
Ingestion	 Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Firefighting measures

Extinguishing media

 $\ensuremath{^{\bullet}}$ There is no restriction on the type of extinguisher which may be used.

Use extinguishing media suitable for surrounding area.

Special hazards arising from the substrate or mixture

Fire Incompatibility	None known.
Advice for firefighters	

Advice for firefighters		
Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses. Use fire fighting procedures suitable for surrounding area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use. 	
Fire/Explosion Hazard	 Non combustible. Not considered a significant fire risk, however containers may burn. May emit poisonous fumes. May emit corrosive fumes. Heating calcium carbonate at high temperatures(825 C.) causes decomposition, releases carbon dioxide gas and leaves a residue of alkaline lime 	
HAZCHEM	Not Applicable	

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	 Clean up all spills immediately. Avoid breathing 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. ALWAYS: Wash area down with large amounts of water and prevent runoff into drains. If contamination of drains or waterways occurs, advise Emergency Services.

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

SECTION 7 Handling and storage

Precautions for safe handling	
Safe handling	 Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. 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.
Other information	 Store in original containers. Keep containers securely sealed. Store in a cool, dry area protected from environmental extremes. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS. For major quantities: Consider storage in bunded areas - ensure storage areas are isolated from sources of community water (including stormwater, ground

	water, lakes and streams}. Ensure that accidental discharge to air or water is the subject of a contingency disaster management plan; this may require consultation with local authorities.
Conditions for safe storage, in	cluding any incompatibilities
Suitable container	 Polyethylene or polypropylene container. Check all containers are clearly labelled and free from leaks.
Storage incompatibility	Calcium carbonate: is incompatible with acids, ammonium salts, fluorine, germanium, lead diacetate, magnesium, mercurous chloride, silicon, silver nitrate, titanium

Contact with acid generates carbon dioxide gas, which may pressurise and then rupture closed containers

Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	calcium carbonate	Calcium carbonate	10 mg/m3	Not Available	Not Available	(a) This value is for inhalable dust containing no asbestos and < 1% crystalline silica.
Australia Exposure Standards	silica crystalline - quartz	Silica - Crystalline: Quartz (respirable dust)	0.05 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	carbon black	Carbon black	3 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	magnesium carbonate	Magnesite	10 mg/m3	Not Available	Not Available	(a) This value is for inhalable dust containing no asbestos and < 1% crystalline silica.

Emergency Limits

Emergency Limits					
Ingredient	Material name	т	EEL-1	TEEL-2	TEEL-3
calcium carbonate	Carbonic acid, calcium salt	4	5 mg/m3	210 mg/m3	1,300 mg/m3
silica crystalline - quartz	Silica, crystalline-quartz; (Silicon dioxide)	0	.075 mg/m3	33 mg/m3	200 mg/m3
carbon black	Carbon black	9	mg/m3	99 mg/m3	590 mg/m3
magnesium carbonate	Magnesium carbonate-magnesium hydroxide, pentahydrate	4	5 mg/m3	500 mg/m3	3,000 mg/m3
magnesium carbonate	Magnesium carbonate; (Magnesite)	4	5 mg/m3	260 mg/m3	1,600 mg/m3
Ingredient	Original IDLH		Revised IDLH		
calcium carbonate	Not Available		Not Available		
silica crystalline - quartz	25 mg/m3 / 50 mg/m3	Not Available			
C.I. Pigment Blue 29	Not Available	Not Available			
carbon black	1,750 mg/m3	Not Available			
haematite	Not Available Not Available				
magnesium carbonate	Not Available		Not Available		

MATERIAL DATA

WARNING: For inhalation exposure ONLY: This substance has been classified by the IARC as Group 1: CARCINOGENIC TO HUMANS

The International Agency for Research on Cancer (IARC) has classified occupational exposures to **respirable** (<5 um) crystalline silica as being carcinogenic to humans . This classification is based on what IARC considered sufficient evidence from epidemiological studies of humans for the carcinogenicity of inhaled silica in the forms of quartz and cristobalite. Crystalline silica is also known to cause silicosis, a non-cancerous lung disease. Intermittent exposure produces; focal fibrosis, (pneumoconiosis), cough, dyspnoea, liver tumours.

* Millions of particles per cubic foot (based on impinger samples counted by light field techniques).

NOTE : the physical nature of quartz in the product determines whether it is likely to present a chronic health problem. To be a hazard the material must enter the breathing zone as respirable particles.

For calcium carbonate:

The TLV-TWA is thought to be protective against the significant risk of physical irritation associated with exposure.

Because the margin of safety of the quartz TLV is not known with certainty and given the associated link between silicosis and lung cancer it is recommended that quartz concentrations be maintained as far below the TLV as prudent practices will allow.

Exposure to respirable crystalline silicas (RCS) represents a significant hazard to workers, particularly those employed in the construction industry where respirable dusts of of cement and concrete are common. Cutting, grinding and other high speed processes, involving their finished products, may further result in dusty atmospheres. Bricks are also a potential source of RCSs under such circumstances.

It is estimated that half of the occupations, involved in construction work, are exposed to levels of RCSs, higher than the current allowable limits. Beaudry et al: Journal of Occupational and Environmental Hygiene 10: 71-77; 2013

Exposure controls

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically
controls	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 prev	ent 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. 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. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh					
	circulating air required to effectively remove the contaminant.					
	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) f/min.) grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone 2.5-10 m/s (500-2000					
	of very high rapid air motion).		2.5-10 m/s (500-2000 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				
	Simple theory shows that air velocity falls rapidly with distance with the square of distance from the extraction point (in simpl accordingly, after reference to distance from the contaminatin 4-10 m/s (800-2000 f/min) for extraction of crusher dusts gen producing performance deficits within the extraction apparatu more when extraction systems are installed or used.	e cases). Therefore the air speed at the extraction point a g source. The air velocity at the extraction fan, for exampler ated 2 metres distant from the extraction point. Other m	should be adjusted, ble, should be a minimum of nechanical considerations,			
Personal protection						
Eye and face protection	 Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may pose a special hazard; soft contact lent the wearing of lenses or restrictions on use, should be crand adsorption for the class of chemicals in use and an a 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 national equivalent] 	eated for each workplace or task. This should include a r account of injury experience. Medical and first-aid person vailable. In the event of chemical exposure, begin eye irr 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			
Skin protection	See Hand protection below					
	The selection of suitable gloves does not only depend on the manufacturer. Where the chemical is a preparation of several and has therefore to be checked prior to the application. The exact break through time for substances has to be obtain	substances, the resistance of the glove material can not	be calculated in advance			
	making a final choice. Personal hygiene is a key element of effective hand care. Glc washed and dried thoroughly. Application of a non-perfumed Suitability and durability of glove type is dependent on usage	wes must only be worn on clean hands. After using glove moisturiser is recommended.				
	 frequency and duration of contact, chemical resistance of glove material, 					
	· glove thickness and					
	240 minutes according to EN 374, AS/NZS 2161.10.1 or natio When only brief contact is expected, a glove with a pro-	ccur, a glove with a protection class of 5 or higher (break onal equivalent) is recommended. tection class of 3 or higher (breakthrough time greater th				
	EN 374, AS/NZS 2161.10.1 or national equivalent) is recomm					
	 Some glove polymer types are less affected by movem 		-			
Hands/leet protection	use. Contaminated gloves should be replaced.		-			
Hands/leet protection	use. Contaminated gloves should be replaced. As defined in ASTM F-739-96 in any application, gloves are Excellent when breakthrough time > 480 min		-			
Hands/leet protection	 use. Contaminated gloves should be replaced. As defined in ASTM F-739-96 in any application, gloves are Excellent when breakthrough time > 480 min Good when breakthrough time > 20 min 		-			
Hands/reet protection	use. Contaminated gloves should be replaced. As defined in ASTM F-739-96 in any application, gloves are Excellent when breakthrough time > 480 min Good when breakthrough time > 20 min Fair when breakthrough time < 20 min Poor when glove material degrades	rated as:	-			
nanus/reet protection	use. Contaminated gloves should be replaced. As defined in ASTM F-739-96 in any application, gloves are Excellent when breakthrough time > 480 min Good when breakthrough time > 20 min Fair when breakthrough time < 20 min Poor when glove material degrades For general applications, gloves with a thickness typically gre	rated as: ater than 0.35 mm, are recommended.	ing gloves for long-term			
	use. Contaminated gloves should be replaced. As defined in ASTM F-739-96 in any application, gloves are Excellent when breakthrough time > 480 min Good when breakthrough time > 20 min Fair when breakthrough time < 20 min Poor when glove material degrades For general applications, gloves with a thickness typically gre It should be emphasised that glove thickness is not necessar efficiency of the glove will be dependent on the exact compose	rated as: ater than 0.35 mm, are recommended. ily a good predictor of glove resistance to a specific chen sition of the glove material. Therefore, glove selection sho	ing gloves for long-term			
Hands/reet protection	use. Contaminated gloves should be replaced. As defined in ASTM F-739-96 in any application, gloves are Excellent when breakthrough time > 480 min Good when breakthrough time > 20 min Fair when breakthrough time < 20 min Poor when glove material degrades For general applications, gloves with a thickness typically gre It should be emphasised that glove thickness is not necessar efficiency of the glove will be dependent on the exact compose consideration of the task requirements and knowledge of breact	rated as: ater than 0.35 mm, are recommended. ily a good predictor of glove resistance to a specific chen sition of the glove material. Therefore, glove selection sho akthrough times.	ing gloves for long-term nical, as the permeation puld also be based on			
	use. Contaminated gloves should be replaced. As defined in ASTM F-739-96 in any application, gloves are Excellent when breakthrough time > 480 min Good when breakthrough time > 20 min Fair when breakthrough time < 20 min Poor when glove material degrades For general applications, gloves with a thickness typically gre It should be emphasised that glove thickness is not necessar efficiency of the glove will be dependent on the exact compos consideration of the task requirements and knowledge of bres Glove thickness may also vary depending on the glove manu- technical data should always be taken into account to ensure Note: Depending on the activity being conducted, gloves of var-	rated as: ater than 0.35 mm, are recommended. ily a good predictor of glove resistance to a specific chen sition of the glove material. Therefore, glove selection sho akthrough times. facturer, the glove type and the glove model. Therefore, t selection of the most appropriate glove for the task. arying thickness may be required for specific tasks. For e red where a high degree of manual dexterity is needed. F	nical, as the permeation nuclal also be based on he manufacturers' xample:			

	moisturiser is recommended. Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present. polychloroprene. nitrile rubber. butyl rubber. fluorocaoutchouc. polyvinyl chloride. Gloves should be examined for wear and/ or degradation constantly.
Body protection	See Other protection below
Other protection	 Overalls. P.V.C apron. Barrier cream. Skin cleansing cream. Eye wash unit.

Respiratory protection

Particulate. (AS/NZS 1716 & 1715, EN 143:2000 & 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)

▶ 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.

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

Try to avoid creating dust conditions.

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Black, blue, red, white solid; does not mix with 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 Applicable
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 Applicable	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Applicable
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Not Available	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	 Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.

Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

Information on toxicological effects

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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	 The material produces moderate skin irritation; evidence exists, or practical experience predicts, that the material either produces moderate inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant, but moderate, 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. Repeated exposure may cause skin cracking, flaking or drying following normal handling and use. 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	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. Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. Pure calcium carbonate does not produce pneumoconiosis probably being eliminated from the lungs slowly by solution. As mined, unsterilised particulates can carry bacteria into the air passages and lungs, producing infection and bronchitis. Long term exposure to high dust concentrations may cause changes in lung function (i.e. pneumoconiosis) caused by particles less than 0.5 micron penetrating and remaining in the lung. A prime symptom is breathlessness. Lung shadows show on X-ray.

	ΤΟΧΙΟΙΤΥ	IRRITATION
Stanley Chalks	Not Available	Not Available
	тохісіту	IRRITATION
	dermal (rat) LD50: >2000 mg/kg ^[1]	Eye (rabbit): 0.75 mg/24h - SEVERE
calcium carbonate	Oral(Rat) LD50; >2000 mg/kg ^[1]	Eye: no adverse effect observed (not irritating) ^[1]
		Skin (rabbit): 500 mg/24h-moderate
		Skin: no adverse effect observed (not irritating) ^[1]
	ΤΟΧΙΟΙΤΥ	IRRITATION
silica crystalline - quartz	Oral(Rat) LD50; =500 mg/kg ^[2]	Not Available
	ΤΟΧΙΟΙΤΥ	IRRITATION
C.I. Pigment Blue 29	Oral(Rat) LD50; 0.01 mg/kg ^[2]	Not Available
	тохісіту	IRRITATION
carbon black	Dermal (rabbit) LD50: >0.003 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1]
	Oral(Rat) LD50; >8000 mg/kg ^[1]	Skin: no adverse effect observed (not irritating) ^[1]
	ΤΟΧΙΟΙΤΥ	IRRITATION
haematite	Oral(Rat) LD50; 14.6 mg/kg ^[1]	Not Available

	ΤΟΧΙCΙΤΥ	IRRITATION		
magnesium carbonate	Oral(Rat) LD50; >2000 mg/kg ^[1]	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			
CALCIUM CARBONATE	No evidence of carcinogenic properties. No evidence of mutagenic or teratogenic effects. 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 produce conjunctivitis. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. 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 (erythema) and swelling the epidermis. Histologically there may be intercellular oedema of the expony layer (spongiosis) and intracellular oedema of the epidermis.			
	WARNING: For inhalation exposure <u>ONLY</u> : This substance has been class The International Agency for Research on Cancer (IARC) has classified of carrinogenic to humans. This classification is based on what IARC consi	ccupational exposi		
SILICA CRYSTALLINE - QUARTZ	the carcinogenic to numbers . This classification is based on what rarec consist the carcinogenicity of inhaled silica in the forms of quartz and cristobalite disease. Intermittent exposure produces; focal fibrosis, (pneumoconiosis), cough, * Millions of particles per cubic foot (based on impinger samples counted NOTE : the physical nature of quartz in the product determines whether material must enter the breathing zone as respirable particles.	Crystalline silica is dyspnoea, liver tum by light field technic	also known to cause silicosis, a non-cancerous l nours. ques).	
	the carcinogenicity of inhaled silica in the forms of quartz and cristobalite disease. Intermittent exposure produces; focal fibrosis, (pneumoconiosis), cough, * Millions of particles per cubic foot (based on impinger samples counted NOTE : the physical nature of quartz in the product determines whether	Crystalline silica is dyspnoea, liver tur by light field techni t is likely to present	nours. ques). t a chronic health problem. To be a hazard the	
QUARTZ	the carcinogenicity of inhaled silica in the forms of quartz and cristobalite disease. Intermittent exposure produces; focal fibrosis, (pneumoconiosis), cough, * Millions of particles per cubic foot (based on impinger samples counted NOTE : the physical nature of quartz in the product determines whether material must enter the breathing zone as respirable particles. NOTE: 90 day (chronic), teratological and mutagenicity tests here all prov	Crystalline silica is dyspnoea, liver turr by light field technic t is likely to present ided negative resu	a also known to cause silicosis, a non-cancerous l nours. ques). t a chronic health problem. To be a hazard the lts. Animal tests have also demonstrated no skin	
QUARTZ C.I. PIGMENT BLUE 29	the carcinogenicity of inhaled silica in the forms of quartz and cristobalite disease. Intermittent exposure produces; focal fibrosis, (pneumoconiosis), cough, * Millions of particles per cubic foot (based on impinger samples counted NOTE : the physical nature of quartz in the product determines whether material must enter the breathing zone as respirable particles. NOTE: 90 day (chronic), teratological and mutagenicity tests here all prov irritation or sensitization. [ICI] Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported	Crystalline silica is dyspnoea, liver turr by light field techni- t is likely to present rided negative resu	a also known to cause silicosis, a non-cancerous l nours. ques). t a chronic health problem. To be a hazard the lts. Animal tests have also demonstrated no skin	
QUARTZ C.I. PIGMENT BLUE 29 CARBON BLACK	the carcinogenicity of inhaled silica in the forms of quartz and cristobalite disease. Intermittent exposure produces; focal fibrosis, (pneumoconiosis), cough, * Millions of particles per cubic foot (based on impinger samples counted NOTE : the physical nature of quartz in the product determines whether material must enter the breathing zone as respirable particles. NOTE: 90 day (chronic), teratological and mutagenicity tests here all provi irritation or sensitization. [ICI] Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported WARNING: This substance has been classified by the IARC as Group 2E The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans.	Crystalline silica is dyspnoea, liver turr by light field techni- t is likely to present rided negative resu	a also known to cause silicosis, a non-cancerous l nours. ques). t a chronic health problem. To be a hazard the lts. Animal tests have also demonstrated no skin	
QUARTZ C.I. PIGMENT BLUE 29 CARBON BLACK HAEMATITE CARBON BLACK &	the carcinogenicity of inhaled silica in the forms of quartz and cristobalite disease. Intermittent exposure produces; focal fibrosis, (pneumoconiosis), cough, * Millions of particles per cubic foot (based on impinger samples counted NOTE : the physical nature of quartz in the product determines whether material must enter the breathing zone as respirable particles. NOTE: 90 day (chronic), teratological and mutagenicity tests here all pro- irritation or sensitization. [ICI] Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported WARNING: This substance has been classified by the IARC as Group 2E The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testin No significant acute toxicological data identified in literature search.	Crystalline silica is dyspnoea, liver turr by light field techni- t is likely to present rided negative resu	a also known to cause silicosis, a non-cancerous l nours. ques). t a chronic health problem. To be a hazard the lts. Animal tests have also demonstrated no skin	
QUARTZ C.I. PIGMENT BLUE 29 CARBON BLACK HAEMATITE CARBON BLACK & HAEMATITE	the carcinogenicity of inhaled silica in the forms of quartz and cristobalite disease. Intermittent exposure produces; focal fibrosis, (pneumoconiosis), cough, * Millions of particles per cubic foot (based on impinger samples counted NOTE : the physical nature of quartz in the product determines whether material must enter the breathing zone as respirable particles. NOTE: 90 day (chronic), teratological and mutagenicity tests here all provi irritation or sensitization. [ICI] Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported WARNING: This substance has been classified by the IARC as Group 2E The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testin No significant acute toxicological data identified in literature search.	Crystalline silica is dyspnoea, liver turr by light field techni- t is likely to present ided negative resu : Possibly Carcinos g.	a also known to cause silicosis, a non-cancerous l nours. ques). t a chronic health problem. To be a hazard the lts. Animal tests have also demonstrated no skin genic to Humans.	
QUARTZ QUARTZ C.I. PIGMENT BLUE 29 CARBON BLACK HAEMATITE CARBON BLACK & HAEMATITE Acute Toxicity Skin Irritation/Corrosion	the carcinogenicity of inhaled silica in the forms of quartz and cristobalite disease. Intermittent exposure produces; focal fibrosis, (pneumoconiosis), cough, * Millions of particles per cubic foot (based on impinger samples counted NOTE : the physical nature of quartz in the product determines whether material must enter the breathing zone as respirable particles. NOTE: 90 day (chronic), teratological and mutagenicity tests here all provirritation or sensitization. [ICI] Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported WARNING: This substance has been classified by the IARC as Group 2E The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testin No significant acute toxicological data identified in literature search.	Crystalline silica is dyspnoea, liver turr by light field technic t is likely to present ided negative resu : Possibly Carcinos g.	s also known to cause silicosis, a non-cancerous l nours. ques). t a chronic health problem. To be a hazard the lts. Animal tests have also demonstrated no skin genic to Humans.	
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Data either not available or does not
 Data available to make classification

SECTION 12 Ecological information

Toxicity

Stanley Chalks	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96	Fish	>56000mg/L	4
calcium carbonate	EC50	72	Algae or other aquatic plants	>14mg/L	2
	EC10	72	Algae or other aquatic plants	>14mg/L	2
	NOEL	1332.0	Not Available	1.0% w/w	4
	Endpoint	Test Duration (hr)	Species	Value	Source
silica crystalline - quartz	Not Available	Not Available	Not Available	Not Available	Not Available

	Endpoint	Test Duration (hr)		Species		Value	Source
	LC50	96		Fish		>=90mg/L	2
C.I. Pigment Blue 29	EC50	48		Crustacea		>21mg/L	2
	EC50	72		Algae or other aquatic plants		>99mg/L	2
	NOEC	504		Crustacea		>=26mg/L	2
	Endpoint	Test Duration (hr)	Sp	ecies	Value		Sourc
	LC50	96	Fis	sh	>100m	ng/L	2
	EC50	48	Cr	ustacea	-33.07	6-41.968mg/L	4
carbon black	EC50	72	Alç	gae or other aquatic plants	>0.2m	g/L	2
	EC10	72	Algae or other aquatic plants >10000m		0mg/L	2	
	NOEC	24	No	t Available	0.05m	g/L	4
	Endpoint	Test Duration (hr)		Species		Value	Sourc
haematite	LC50	96		Fish		>=0.41- <=1.75mg/L	2
	NOEC	120		Crustacea		ca.21mg/L	2
	Endpoint	Test Duration (hr)		Species		Value	Sourc
	LC50	96		Fish		2120mg/L	2
magnesium carbonate	EC50	72 Algae or other aquatic plants			>18.5mg/L	2	
	NOEC	72		Algae or other aquatic plants		18.5mg/L	2

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
magnesium carbonate	LOW	LOW
Bioaccumulative potential		
Ingredient	Bioaccumulation	
magnesium carbonate	LOW (LogKOW = -0.4605)	

Mobility in soil

Ingredient	Mobility
magnesium carbonate	HIGH (KOC = 1)

SECTION 13 Disposal considerations

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. 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. In most instances the supplier of the material should be consulted. 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 sever may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority. Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Management Authority for disposal. Bury residue in an authorised landfill. Recycle containers if possible, or dispose of in an authorised landfill.

SECTION 14 Transport information

Labels Required	
Marine Pollutant	NO
HAZCHEM	Not Applicable

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

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

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

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

Not Applicable

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

Product name	Group
calcium carbonate	Not Available
silica crystalline - quartz	Not Available
C.I. Pigment Blue 29	Not Available
carbon black	Not Available
haematite	Not Available
magnesium carbonate	Not Available

Transport in bulk in accordance with the ICG Code

Product name	Ship Type
calcium carbonate	Not Available
silica crystalline - quartz	Not Available
C.I. Pigment Blue 29	Not Available
carbon black	Not Available
haematite	Not Available
magnesium carbonate	Not Available

SECTION 15 Regulatory information

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

calcium carbonate is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

silica crystalline - quartz is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australian Inventory of Industrial Chemicals (AIIC)

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans

C.I. Pigment Blue 29 is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

carbon black is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australian Inventory of Industrial Chemicals (AIIC)

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

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

haematite is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

magnesium carbonate is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	No (haematite)
Canada - NDSL	No (silica crystalline - quartz; C.I. Pigment Blue 29; carbon black; magnesium carbonate)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	No (haematite)
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes

National Inventory	Status	
USA - TSCA	Yes	
Taiwan - TCSI	Yes	
Mexico - INSQ	Yes	
Vietnam - NCI	Yes	
Russia - ARIPS	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 and are not exempt from listing(see specific ingredients in brackets)	

SECTION 16 Other information

Revision Date	11/01/2019
Initial Date	01/10/2013

SDS Version Summary

Version	Issue Date	Sections Updated
3.1.1.1	11/01/2019	One-off system update. NOTE: This may or may not change the GHS classification

Other information

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

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted Average PC-STEL: Permissible Concentration-Short Term Exposure Limit IARC: International Agency for Research on Cancer ACGIH: American Conference of Governmental Industrial Hygienists STEL: Short Term Exposure Limit TEEL: Temporary Emergency Exposure Limit。 IDLH: Immediately Dangerous to Life or Health Concentrations OSF: Odour Safety Factor NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index This document is copyright. Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH. TEL (+61 3) 9572 4700.