

WATTYL GRANOSITE GRANOSTONE BASE WHITE

Chemwatch Material Safety Data Sheet
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NC317ECP

CHEMWATCH 19705
Version No:4

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

WATTYL GRANOSITE GRANOSTONE BASE WHITE

SYNONYMS

PRODUCT USE

Binding layer for embedded aggregate finish. Applied by spray or roller.

SUPPLIER

Company: Wattyl Pty Ltd

Address:

4 Steel St

Blacktown

NSW, 2148

AUS

Telephone: +61 2 9621 6255

Emergency Tel: 1800 039 008

Fax: +61 2 9831 4244

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.

POISONS SCHEDULE

None

RISK

Irritating to eyes.

Limited evidence of a carcinogenic effect.

SAFETY

Wear suitable protective clothing.

To clean the floor and all objects contaminated by this material use water and detergent.

Keep away from food drink and animal feeding stuffs.

If swallowed IMMEDIATELY contact Doctor or Poisons Information Centre (show this container or label).

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
acrylic copolymer latex	Not avail.	10-30
calcium carbonate	471-34-1	30-60
titanium dioxide	13463-67-7	1-5
ethylene glycol monobutyl ether	111-76-2	<1
ammonium hydroxide	1336-21-6	<0.2
isothiazolinones		<0.6
additives		1-5
water	7732-18-5	10-30

Section 4 - FIRST AID MEASURES

SWALLOWED

· Immediately give a glass of water.

- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

EYE

If this product comes in contact with the eyes:

- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- If pain persists or recurs seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

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.

INHALED

- 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.

NOTES TO PHYSICIAN

Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

FIRE FIGHTING

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

- The material is not readily combustible under normal conditions.
- However, it will break down under fire conditions and the organic component may burn.
- Not considered to be a significant fire risk.
- Heat may cause expansion or decomposition with violent rupture of containers.
- Decomposes on heating and may produce toxic fumes of carbon monoxide (CO).
- May emit acrid smoke.

FIRE INCOMPATIBILITY

Avoid reaction with oxidising agents.

HAZCHEM: None

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.
- Wipe up.
- Place in a suitable labelled container for waste disposal.

MAJOR SPILLS

Minor hazard.

- Clear area of personnel.
- Alert Fire Brigade and tell them location and nature of hazard.
- Control personal contact by using protective equipment as required.
- Prevent spillage from entering drains or water ways.
- Contain spill with sand, earth or vermiculite.
- Collect recoverable product into labelled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite and place in appropriate containers for disposal.
- Wash area and prevent runoff into drains or waterways.
- If contamination of drains or waterways occurs, advise emergency services.

EMERGENCY RESPONSE PLANNING GUIDELINES (ERPG)

The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour WITHOUT experiencing or developing

life-threatening health effects is:

calcium carbonate 15 mg/m³
water 500 mg/m³

irreversible or other serious effects or symptoms which could impair an individual's ability to take protective action is:

calcium carbonate 15 mg/m³
water 500 mg/m³

other than mild, transient adverse effects without perceiving a clearly defined odour is:

calcium carbonate 15 mg/m³
water 500 mg/m³

The threshold concentration below which most people will experience no appreciable risk of health effects:

calcium carbonate 15 mg/m³
water 500 mg/m³

American Industrial Hygiene Association (AIHA)

Ingredients considered according to the following cutoffs

Very Toxic (T+)	>= 0.1%	Toxic (T)	>= 3.0%
R50	>= 0.25%	Corrosive (C)	>= 5.0%
R51	>= 2.5%		
else	>= 10%		

where percentage is percentage of ingredient found in the mixture

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

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

SUITABLE CONTAINER

- Lined metal can, lined metal pail/ can.

- Plastic pail.
- Polyliner drum.
- Packing as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY

Avoid storage with oxidisers.

STORAGE REQUIREMENTS

DO NOT use unlined steel containers.

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well ventilated area.
- DO NOT allow to freeze.
- Store away from incompatible materials.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³
Australia Exposure Standards	calcium carbonate (Calcium carbonate (a))		10		
Australia Exposure Standards	titanium dioxide (Titanium dioxide (a))		10		
Australia Exposure Standards	ethylene glycol monobutyl ether (2-Butoxyethanol)	20	96.9	50	242
Australia Exposure Standards	ammonium hydroxide (Ammonia)	25	17	35	24

ENDOELTABLE

The following materials had no OELs on our records

? water: CAS:7732-18-5

EMERGENCY EXPOSURE LIMITS

Material	Revised IDLH Value (mg/m ³)	Revised IDLH Value (ppm)
titanium dioxide	5,000	
ethylene glycol monobutyl ether		700 [Unch]
ammonium hydroxide		300

MATERIAL DATA

Not available. Refer to individual constituents.

INGREDIENT DATA

CALCIUM CARBONATE:

TITANIUM DIOXIDE:

Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat. Historically occupational exposure standards for these irritants have been based on observation of workers' responses to various airborne concentrations. Present day expectations require that nearly every individual should be protected against even minor sensory irritation and exposure standards are established using uncertainty factors or safety factors of 5 to 10 or more. On occasion animal no-observable-effect-levels (NOEL) are used to determine these limits where human results are unavailable. An additional approach, typically used by the TLV committee (USA) in

determining respiratory standards for this group of chemicals, has been to assign ceiling values (TLV C) to rapidly acting irritants and to assign short-term exposure limits (TLV STELs) when the weight of evidence from irritation, bioaccumulation and other endpoints combine to warrant such a limit. In contrast the MAK Commission (Germany) uses a five -category system based on intensive odour, local irritation, and elimination half-life. However this system is being replaced to be consistent with the European Union (EU) Scientific Committee for Occupational Exposure Limits (SCOEL); this is more closely allied to that of the USA.

OSHA (USA) concluded that exposure to sensory irritants can:

- cause inflammation
- cause increased susceptibility to other irritants and infectious agents
- lead to permanent injury or dysfunction
- permit greater absorption of hazardous substances and
- acclimate the worker to the irritant warning properties of these substances thus

increasing the risk of overexposure.

ACRYLIC COPOLYMER LATEX:

WATER:

No exposure limits set by NOHSC or ACGIH.

CALCIUM CARBONATE:

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

TITANIUM DIOXIDE:

It is the goal of the ACGIH (and other Agencies) to recommend TLVs (or their equivalent) for all substances for which there is evidence of health effects at airborne concentrations encountered in the workplace.

At this time no TLV has been established, even though this material may produce adverse health effects (as evidenced in animal experiments or clinical experience). Airborne concentrations must be maintained as low as is practically possible and occupational exposure must be kept to a minimum.

NOTE: The ACGIH occupational exposure standard for Particles Not Otherwise Specified (P.N.O.S) does NOT apply.

WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.

IDLH Level: 5000 mg/m³

Animal studies at 10 mg/m³ show no significant fibrosis, possibly reversible tissue reaction and the architecture of lung air spaces remains intact.

ETHYLENE GLYCOL MONOBUTYL ETHER:

Exposed individuals are reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.

Odour Safety Factor (OSF) is determined to fall into either Class A or B.

The Odour Safety Factor (OSF) is defined as:

OSF= Exposure Standard (TWA) ppm/ Odour Threshold Value (OTV) ppm

Classification into classes follows:

Class	OSF	Description
A	550	Over 90% of exposed individuals are aware by smell that the Exposure Standard (TLV-TWA for example) is being reached, even when distracted by working activities
B	26-550	As "A" for 50-90% of persons being distracted
C	1-26	As "A" for less than 50% of persons being distracted
		10-50% of persons aware of being tested perceive by smell

D	0.18-1	that the Exposure Standard is being reached
E	<0.18	As "D" for less than 10% of persons aware of being tested

Odour Threshold Value: 0.10 ppm (detection), 0.35 ppm (recognition)
 Although rats appear to be more susceptible than other animals anaemia is not uncommon amongst humans following exposure. The TLV reflects the need to maintain exposures below levels found to cause blood changes in experimental animals. It is concluded that this limit will reduce the significant risk of irritation, haematologic effects and other systemic effects observed in humans and animals exposed to higher vapour concentrations. The toxic effects typical of some other glycol ethers (pancytopenia, testis atrophy and teratogenic effects) are not found with this substance.

AMMONIUM HYDROXIDE:

Odour Threshold Value: Variously reported as 0.019 ppm and 55 ppm;
 AIHA Value 16.7 ppm (detection)

NOTE: Detector tubes for ammonia, measuring in excess of 1 ppm, are commercially available.

The TLV-TWA is thought to be protective against irritation of the eyes and respiratory tract and minimise discomfort among workers that are not inured to its effects and systemic damage. Acclimatised persons are able to tolerate prolonged exposures of up to 100 ppm without symptoms. Marked irritation has been seen in persons exposed to ammonia concentrations between 50 and 100 ppm only when the exposures involved sudden concentration peaks which do not permit short-term acclimatisation. The detoxification capacity of the liver is significant since the amount of ammonia formed endogenously in the intestines markedly exceeds that from external sources.

Human exposure effects, at vapour concentrations of about:

ppm Possible Effects

5 minimal irritation

9-50 nasal dryness, olfactory fatigue and moderate irritation

125-137 definite nose, throat and chest irritation

140 slight eye irritation

150 laryngeal spasm

500 30 minute exposures may produce cyclic hypernea, increased blood pressure and pulse rate, and upper respiratory tract irritation which may persist for 24 hours

700 immediate eye irritation

1500-10000 dyspnea, convulsive coughing, chest pain, respiratory spasm, pink frothy sputum, rapid asphyxia and delayed pulmonary oedema

which may be fatal. Other effects include runny nose, swelling

of the lips, restlessness, headache, salivation, nausea,

vomiting, glottal oedema, pharyngitis, tracheitis, and speech

difficulties. Bronchopneumonia, asphyxiation due to spasms,

inflammation, and oedema of the larynx, may be fatal. Residual

effects include hoarseness, productive cough, and decreased

respiratory function

>2500 severe eye irritation, with swelling of the eyelids,

lachrymation, blepharospasm, palpebral oedema, increased

intraocular pressure, oval semi-dilated, fixed pupils, corneal

ulceration (often severe) and temporary blindness. Depending on

duration of exposure, there may be destruction of the

epithelium, corneal and lenticular opacification, and iritis

accompanied by hypopyon or haemorrhage and possible loss of

pigment from the posterior layer of the iris. Less severe

damage is often resolved. In the case of severe damage, symptoms may be delayed; late complications including persistent oedema, vascularisation and corneal scarring, permanent opacity, acute angle glaucoma, staphyloma, cataract, and atrophy of the retina, iris, and symblepharon.

Long-term exposure to sub-acute concentrations or single exposures to high concentrations may produce chronic airway dysfunction, alveolar disease, bronchiolitis, bronchiectasis, emphysema and anxiety neuroses

PERSONAL PROTECTION

EYE

- Safety glasses with side shields; or as required,
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

HANDS/FEET

Wear general protective gloves: i.e. Disposable polythene gloves or Cotton gloves or Light weight rubber gloves, with Barrier cream preferably Safety footwear.
DO NOT use solvent to clean the skin.

OTHER

- Overalls.
- Barrier cream.
- Skin cleansing cream.
- Eyewash unit.

RESPIRATOR

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Breathing Zone Level ppm (volume)	Maximum Protection Factor	Half-face Respirator	Full-Face Respirator
1000	10	AK-AUS P	-
1000	50	-	AK-AUS P
5000	50	Airline *	-
5000	100	-	AK-2 P
10000	100	-	AK-3 P
	100+		Airline**

* - Continuous Flow ** - Continuous-flow or positive pressure demand.

The local concentration of material, quantity and conditions of use determine the type of

personal protective equipment required.
For further information consult site specific
CHEMWATCH data (if available), or your
Occupational Health and Safety Advisor.

ENGINEERING CONTROLS

General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Acrylic polymer emulsions may contain residual traces of odourous acrylic monomers; the amounts remaining in compounded mixtures represents a very low order of exposure, however this may become noticeable with some materials particularly in confined or poorly ventilated spaces. White heavy gritty non- combustible liquid/paste with a mild ammonia odour; miscible with water.

PHYSICAL PROPERTIES

Liquid.

Mixes with water.

Molecular Weight: Not applicable.

Melting Range (°C): Not available.

Solubility in water (g/L): Miscible

pH (1% solution): Not available

Volatile Component (%vol): 25-35

Relative Vapour Density (air=1): >1

Lower Explosive Limit (%): Not applicable

Autoignition Temp (°C): Not applicable

State: Liquid

Boiling Range (°C): 100

Specific Gravity (water=1): 1.21-1.78

pH (as supplied): 8-10

Vapour Pressure (kPa): Not available.

Evaporation Rate: Not available

Flash Point (°C): Not applicable

Upper Explosive Limit (%): Not applicable

Decomposition Temp (°C): Not available.

Viscosity: Not available

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Considered an unlikely route of entry in commercial/industrial environments.
The material is. discomforting to the gastro-intestinal tract if swallowed.

EYE

The liquid is discomforting to the eyes and is capable of causing a mild, temporary redness of the conjunctiva (similar to wind-burn), temporary impairment of vision and/ or other transient eye damage/ ulceration.
The material may produce severe irritation to the eye causing pronounced inflammation.
Repeated or prolonged exposure to irritants may produce conjunctivitis.

SKIN

The material is. mildly discomforting to the skin and is capable of causing skin reactions which may lead to dermatitis from repeated exposures over long periods.
The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

INHALED

The vapour is mildly discomforting to the upper respiratory tract and lungs. Inhalation of vapour is more likely at higher than normal temperatures. The mist is to the upper respiratory tract.

CHRONIC HEALTH EFFECTS

Principal routes of exposure are usually by inhalation of vapour and skin contact/eye contact with the material. Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following.

TOXICITY AND IRRITATION

Not available. Refer to individual constituents.

ACRYLIC COPOLYMER LATEX:

No significant acute toxicological data identified in literature search.

CALCIUM CARBONATE:

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY

Oral (Rat) LD50: 6450 mg/kg

IRRITATION

Skin (rabbit): 500 mg/24h-Moderate

Eye (rabbit): 0.75 mg/24h - SEVERE

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 on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

No evidence of carcinogenic properties. No evidence of mutagenic or teratogenic effects.

TITANIUM DIOXIDE:

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY

IRRITATION

Skin (human) 0.3: mg/3d-I Mild

The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

ETHYLENE GLYCOL MONOBUTYL ETHER:

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY

Oral (rat) LD50: 470 mg/kg

Dermal (rabbit) LD50: 220 mg/kg

Inhalation (human) TClO: 100 ppm

Inhalation (human) TClO: 195 ppm/8h * [Union Carbide]

Inhalation (rat-male) LC50: 486 ppm *

Inhalation (rat-female) LC50: 450 ppm *

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 on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

NOTE: Changes in kidney, liver, spleen and lungs are observed in animals exposed to high concentrations of this substance by all routes.

AMMONIUM HYDROXIDE:

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY

Oral (rat) LD50: 350 mg/kg

Oral (human) LDLo: 43 mg/kg

Inhalation (human) LClO: 5000 ppm/5m

Inhalation (human) TClO: 20 ppm

Inhalation (rat) LC50: 2000 ppm/4h

IRRITATION

Eye (rabbit): 0.25 mg SEVERE

Eye (rabbit): 1 mg/30s SEVERE

Unreported (man) LDLo: 132 mg/kg

The material may produce severe irritation to the eye causing pronounced inflammation.

Repeated or prolonged exposure to irritants may produce conjunctivitis.

Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production.

WATER:

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.
No significant acute toxicological data identified in literature search.

MATERIAL	CARCINOGEN	REPROTOXIN	SENSITISER	SKIN
titanium dioxide	IARC:2B			
ethylene glycol monobutyl ether	IARC:3			

CARCINOGEN

IARC: International Agency for Research on Cancer (IARC) Carcinogens: titanium dioxide
Category: 2B

CARCINOGEN

IARC: International Agency for Research on Cancer (IARC) Carcinogens: ethylene glycol monobutyl ether Category: 3

Section 12 - ECOLOGICAL INFORMATION

No data for Watty! Granosite Granostone Base White.
Refer to data for ingredients, which follows:

TITANIUM DIOXIDE:

DO NOT discharge into sewer or waterways.

ETHYLENE GLYCOL MONOBUTYL ETHER:

Fish LC50 (96hr.) (mg/l):	1490
BCF<100:	0.4
log Kow (Prager 1995):	0.83
log Kow (Sangster 1997):	0.8
Half- life Soil - High (hours):	672
Half- life Soil - Low (hours):	168
Half- life Air - High (hours):	32.8
Half- life Air - Low (hours):	3.28
Half- life Surface water - High (hours):	672
Half- life Surface water - Low (hours):	168
Half- life Ground water - High (hours):	1344
Half- life Ground water - Low (hours):	336
Aqueous biodegradation - Aerobic - High (hours):	672
Aqueous biodegradation - Aerobic - Low (hours):	168
Aqueous biodegradation - Anaerobic - High (hours):	2688
Aqueous biodegradation - Anaerobic - Low (hours):	672
Photooxidation half- life air - High (hours):	32.8
Photooxidation half- life air - Low (hours):	3.28
Fish LC50 (96hr.) (mg/l):	1250- 1650
Daphnia magna EC50 (48hr.) (mg/l):	600- 1000

DO NOT discharge into sewer or waterways.

log Kow: 0.76-0.83
 Koc: 67
 Half-life (hr) air: 17
 Henry's atm m³ /mol: 2.08E-08
 BOD 5 if unstated: 0.71
 COD: 2.2
 Log BCF: 0.4
 Fish toxicity:
 (-) 24h LD50: 983-1650 mg/L
 (Fathead minnow) 96h LC50: 1700 mg/L **
 Invertebrate toxicity:
 cell mult. inhib.91-900mg/L
 (Daphnia) 48h LC50: >1000 mg/L **
 Bioaccumulation: not sig
 Effects on algae and plankton: cell mult. inhib.35-900mg/L
 Degradation Biological: rapid
 processes Abiotic: no hydrol&photol,RxnOH* ** [Union Carbide]

AMMONIUM HYDROXIDE:
 Fish LC50 (96hr.) (mg/l): 8.2

In air ammonia is persistent whilst, in water, it biodegrades rapidly to nitrate, producing a high oxygen demand. Ammonia is strongly adsorbed to soil. Ammonia is non-persistent in water (half-life 2 days) and is moderately toxic to fish under normal temperature and pH conditions. Ammonia is harmful to aquatic life at low concentrations but does not concentrate in the food chain.

Drinking Water Standards:
 0.5 mg/l (UK max.)
 1.5 mg/l (WHO Levels)
 Soil Guidelines: none available.
 Air Quality Standards: none available.
 Prevent, by any means available, spillage from entering drains or water courses.
 Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.
 Wastes resulting from use of the product must be disposed of on site or at approved waste sites.
 DO NOT discharge into sewer or waterways.

Section 13 - DISPOSAL CONSIDERATIONS

- 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 - TRANSPORTATION INFORMATION

HAZCHEM: None

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS:UN, IATA, IMDG

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE: None

REGULATIONS

Wattyl Granosite Granostone Base White (CAS: None):
 No regulations applicable

calcium carbonate (CAS: 471-34-1) is found on the following regulatory lists;
 Australia High Volume Industrial Chemical List (HVICL)
 Australia Inventory of Chemical Substances (AICS)

Australia Therapeutic Goods Administration (TGA) Substances that may be used as active ingredients in Lis
CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unle
International Council of Chemical Associations (ICCA) - High Production Volume List
OECD Representative List of High Production Volume (HPV) Chemicals
calcium carbonate (CAS: 1317-65-3) is found on the following regulatory lists;
Australia Exposure Standards
Australia Inventory of Chemical Substances (AICS)
OECD Representative List of High Production Volume (HPV) Chemicals

titanium dioxide (CAS: 13463-67-7) is found on the following regulatory lists;
Australia Exposure Standards
Australia High Volume Industrial Chemical List (HVICL)
Australia Inventory of Chemical Substances (AICS)
Australia Therapeutic Goods Administration (TGA) Substances that may be used as active ingredients in Lis
Australia Therapeutic Goods Administration (TGA) Sunscreening agents permitted as active ingredients in li
CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unle
International Agency for Research on Cancer (IARC) Carcinogens
OECD Representative List of High Production Volume (HPV) Chemicals
titanium dioxide (CAS: 1317-70-0) is found on the following regulatory lists;
Australia Inventory of Chemical Substances (AICS)
OECD Representative List of High Production Volume (HPV) Chemicals
titanium dioxide (CAS: 1317-80-2) is found on the following regulatory lists;
Australia Inventory of Chemical Substances (AICS)
OECD Representative List of High Production Volume (HPV) Chemicals

ethylene glycol monobutyl ether (CAS: 111-76-2) is found on the following regulatory lists;
Australia Exposure Standards
Australia High Volume Industrial Chemical List (HVICL)
Australia Inventory of Chemical Substances (AICS)
Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix E (Part 2)
IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances
International Agency for Research on Cancer (IARC) Carcinogens
OECD Representative List of High Production Volume (HPV) Chemicals

ammonium hydroxide (CAS: 1336-21-6) is found on the following regulatory lists;
Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways t
habitat)
Australia - Australian Capital Territory Environment Protection Regulation Pollutants entering waterways - D
Australia - Queensland Hazardous Materials and Prescribed Quantities for Major Hazard Facilities
Australia Exposure Standards
Australia High Volume Industrial Chemical List (HVICL)
Australia Inventory of Chemical Substances (AICS)
Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix E (Part 2)
Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix F (Part 3)
Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 5
Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6
CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unle
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk
International Council of Chemical Associations (ICCA) - High Production Volume List
OECD Representative List of High Production Volume (HPV) Chemicals
WHO Guidelines for Drinking-water Quality - Chemicals for which guideline values have not been establishe

water (CAS: 7732-18-5) is found on the following regulatory lists;
Australia Inventory of Chemical Substances (AICS)
Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix E (Part 2)
Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix F (Part 3)
OECD Representative List of High Production Volume (HPV) Chemicals

No data available for acrylic copolymer latex as CAS: Not avail.
No data available for calcium carbonate as CAS: 13397-26-7, CAS: 15634-14-7.
No data available for titanium dioxide as CAS: 12188-41-9.

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
calcium carbonate	471-34-1, 13397-26-7, 15634-14-7, 1317-65-3
titanium dioxide	13463-67-7, 1317-70-0, 1317-80-2, 12188-41-9

REPRODUCTIVE HEALTH GUIDELINES

Ingredient	ORG	UF	Endpoi	CR	Adeq
		nt	TLV		
ethylene glycol monobutyl ether	3.6 mg/m3		100	D	NA -

These exposure guidelines have been derived from a screening level of risk assessment and should not be construed as unequivocally safe limits. ORGS represent an 8-hour time-weighted average unless specified otherwise.

CR = Cancer Risk/10000; UF = Uncertainty factor:

TLV believed to be adequate to protect reproductive health:

LOD: Limit of detection

Toxic endpoints have also been identified as:

D = Developmental; R = Reproductive; TC = Transplacental carcinogen
 Jankovic J., Drake F.: A Screening Method for Occupational Reproductive
 American Industrial Hygiene Association Journal 57: 641-649 (1996).

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.

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