

# GRANOSITE GRANOFLEX

Chemwatch Material Safety Data Sheet  
Issue Date: 25-Jul-2008  
XC9317EC

CHEMWATCH 5041-88  
Version No:6  
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## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NAME

GRANOSITE GRANOFLEX

### SYNONYMS

"Product Code: 851008"

### PRODUCT USE

Used according to manufacturer's directions.

### SUPPLIER

Company: Granosite  
Address:  
4 Steel Street  
Blacktown  
NSW, 2148  
AUS  
Telephone: +61 2 9621 6255  
Emergency Tel: +61 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

Risk Codes	Risk Phrases
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R49	May cause CANCER by inhalation.

### SAFETY

Safety Codes	Safety Phrases
S01	Keep locked up.
S36	Wear suitable protective clothing.
S38	In case of insufficient ventilation wear suitable respiratory equipment.
S401	To clean the floor and all objects contaminated by this material use water and detergent.
S35	This material and its container must be disposed of in a safe way.
S13	Keep away from food drink and animal feeding stuffs.

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
styrene/ acrylic acid copolymer	25085-34-1	10-30
silica crystalline - quartz	14808-60-7	>60
ethylene glycol monobutyl ether	111-76-2	<1
ammonium hydroxide	1336-21-6	<0.1
isothiazolinones		<0.1
additives		<1
water	7732-18-5	1-9
NOTE: May contain residuals as styrene	100-42-5	

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## Section 4 - FIRST AID MEASURES

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### 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 or hair contact occurs:

- 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.

### NOTES TO PHYSICIAN

Treat symptomatically.

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## Section 5 - FIRE FIGHTING MEASURES

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### EXTINGUISHING MEDIA

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

### 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.

### FIRE/EXPLOSION HAZARD

- Non combustible.
- Not considered a significant fire risk, however containers may burn., carbon dioxide (CO<sub>2</sub>), silicon dioxide (SiO<sub>2</sub>), other pyrolysis products typical of burning organic material.

### FIRE INCOMPATIBILITY

- Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

HAZCHEM: None

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## Section 6 - ACCIDENTAL RELEASE MEASURES

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### 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.

#### MAJOR SPILLS

Moderate hazard.

- Clear area of personnel and move upwind.
- 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 course.

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

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## Section 7 - HANDLING AND STORAGE

### PROCEDURE FOR HANDLING

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Avoid contact with moisture.

### SUITABLE CONTAINER

- Polyethylene or polypropylene container.
- Packing as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

### STORAGE INCOMPATIBILITY

- Avoid reaction with oxidising agents.

### STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m <sup>3</sup>	STEL ppm	STEL mg/m <sup>3</sup>
Australia Exposure Standards	styrene/ acrylic acid copolymer (Inspirable dust (not otherwise classified))		10		
Australia Exposure Standards	silica crystalline - quartz (Silica - Crystalline Quartz)		0.1		
Australia Exposure Standards	silica crystalline - quartz (Silica - Amorphous Fume (thermally generated))(respirable dust) (g)		2		
Australia Exposure Standards	ethylene glycol monobutyl ether (2-Butoxyethanol)	20	96.9	50	242
Australia Exposure Standards	ammonium hydroxide (Ammonia)	25	17	35	24
Australia Exposure Standards	styrene (Styrene, monomer)	50	213	100	426

The following materials had no OELs on our records

- water: CAS:7732- 18- 5

### PERSONAL PROTECTION

#### RESPIRATOR

Type AK Filter of sufficient capacity

#### EYE

- Safety glasses with side shields.
- 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

Suitability and durability of glove type is dependent on usage. Factors such as:

- frequency and duration of contact,
- chemical resistance of glove material,
- glove thickness and
- dexterity,.
- Wear chemical protective gloves, eg. PVC.
- Wear safety footwear or safety gumboots, eg. Rubber.

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### OTHER

- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.

### ENGINEERING CONTROLS

Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator.

## 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 magnitude however this may become noticeable with some materials particularly in confined or poorly ventilated spaces.

Highly viscous sandy non-combustible liquid with a mild slightly ammoniacal odour. Miscible in 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): 10- 20  
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): 1.47- 1.53  
pH (as supplied): 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.

*For incompatible materials - refer to Section 7 - Handling and Storage.*

## Section 11 - TOXICOLOGICAL INFORMATION

### POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS  
Not applicable.

CHRONIC HEALTH EFFECTS  
May cause CANCER by inhalation.  
Harmful: danger of serious damage to health by prolonged exposure through inhalation.

### TOXICITY AND IRRITATION

Not available. Refer to individual constituents.

STYRENE/ ACRYLIC ACID COPOLYMER:  
No significant acute toxicological data identified in literature search.

SILICA CRYSTALLINE - QUARTZ:  
unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

### TOXICITY

Inhalation (human) LCLo: 0.3 mg/m<sup>3</sup>/10Y  
Inhalation (human) TCLo: 16 mppcf\*/8H/17.9Y  
Inhalation (rat) TCLo: 50 mg/m<sup>3</sup>/6H/71W

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

Intermittent; focal fibrosis,  
(pneumoconiosis), cough, dyspnoea  
Intermittent; 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.

IRRITATION  
Nil Reported

ETHYLENE GLYCOL MONOBUTYL ETHER:

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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 a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis.

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

## IRRITATION

Skin (rabbit): 500 mg, open; Mild  
Eye (rabbit): 100 mg/24h- Moderate  
Eye (rabbit): 100 mg SEVERE

## 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  
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.

## WATER:

No significant acute toxicological data identified in literature search.

## STYRENE:

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

## TOXICITY

Oral (Rat) LD50: 2650 mg/kg  
Intraperitoneal (Rat) LD50: 898 mg/kg  
Oral (Mouse) LD50: 316 mg/kg  
Inhalation (Mouse) LC50: 9500 mg/m<sup>3</sup>/4h  
Intraperitoneal (Mouse) LD50: 660 mg/kg  
Intravenous (Mouse) LD50: 90 mg/kg  
Inhalation (Rabbit) LC: 4000 ppm/4h  
Inhalation (Rat) LC50: 24000 mg/m<sup>3</sup>/4h  
Inhalation (Human) LCLo: 10000 ppm/30 m

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.

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

## IRRITATION

Skin (rabbit): 500 mg - Mild  
Eye (rabbit): 100 mg/24h - Moderate  
Skin (rabbit): 500 mg - Mild  
Eye (rabbit): 100 mg/24h - Moderate

MATERIAL	CARCINOGEN	REPROTOXIN	SENSITISER	SKIN
silica crystalline - quartz	IARC:1			
ethylene glycol monobutyl ether	IARC:3			
styrene	IARC:2B			

## CARCINOGEN

IARC: International Agency for Research on Cancer (IARC) Carcinogens: silica crystalline - quartz Category: WARNING: This substance has been classified by the IARC as Group 1: CARCINOGENIC TO HUMANS.

## CARCINOGEN

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

## CARCINOGEN

IARC: International Agency for Research on Cancer (IARC) Carcinogens: styrene Category: WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.

## Section 12 - ECOLOGICAL INFORMATION

No data

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## Section 13 - DISPOSAL CONSIDERATIONS

- 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.
- Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: Burial in a licenced land-fill or incineration in a licenced apparatus (after admixture with suitable combustible material).
- Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

## Section 14 - TRANSPORTATION INFORMATION

HAZCHEM: None (ADG6)

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

## Section 15 - REGULATORY INFORMATION

**POISONS SCHEDULE: None**

### REGULATIONS

Granosite GranoFlex (CAS: None):  
No regulations applicable

styrene/ acrylic acid copolymer (CAS: 25085-34-1) is found on the following regulatory lists;

- Australia Exposure Standards
- Australia Inventory of Chemical Substances (AICS)

silica crystalline - quartz (CAS: 14808-60-7) is found on the following regulatory lists;

- Australia - New South Wales Hazardous Substances Prohibited for Specific Uses
- Australia - New South Wales Hazardous Substances Requiring Health Surveillance
- Australia - South Australia Hazardous Substances Requiring Health Surveillance
- Australia - Tasmania Hazardous Substances Prohibited for Specified Uses
- Australia - Tasmania Hazardous Substances Requiring Health Surveillance
- Australia - Western Australia Hazardous Substances Requiring Health Surveillance
- Australia Exposure Standards
- Australia Hazardous Substances
- Australia Hazardous Substances Requiring Health Surveillance
- Australia High Volume Industrial Chemical List (HVICL)
- Australia Inventory of Chemical Substances (AICS)
- Australia Occupational Health and Safety (Commonwealth Employment) (National Standards) Regulations 1994 - Hazardous Substances Requiring Health

Surveillance

- Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6
- International Agency for Research on Cancer (IARC) Carcinogens
- 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 Hazardous Substances
- 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) - Appendix I
- Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6
- GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships
- IMO IBC Code Chapter 17: Summary of minimum requirements
- 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 taken to cause environmental harm (Aquatic habitat)

- Australia - Australian Capital Territory Environment Protection Regulation Pollutants entering waterways - Domestic water quality
- Australia - Queensland Hazardous Materials and Prescribed Quantities for Major Hazard Facilities
- Australia Exposure Standards
- Australia Hazardous Substances
- 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 2
- 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, Unless Otherwise Specified, in Accordance with GMP

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Section 15 - REGULATORY INFORMATION

GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships  
IMO IBC Code Chapter 17: Summary of minimum requirements  
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk  
International Air Transport Association (IATA) Dangerous Goods Regulations  
International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List  
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 established

water (CAS: 7732-18-5) is found on the following regulatory lists;

Australia Inventory of Chemical Substances (AICS)

GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships

IMO IBC Code Chapter 18: List of products to which the Code does not apply

OECD Representative List of High Production Volume (HPV) Chemicals

styrene (CAS: 100-42-5) is found on the following regulatory lists;

Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (Domestic water supply - organic compounds)

Australia - Australian Capital Territory Environment Protection Regulation Pollutants entering waterways - Domestic water quality

Australia Dangerous Goods Code (ADG Code) - Goods Too Dangerous To Be Transported

Australia Exposure Standards

Australia Hazardous Substances

Australia High Volume Industrial Chemical List (HVICL)

Australia Inventory of Chemical Substances (AICS)

Australia National Pollutant Inventory

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

GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships

IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk

IMO Provisional Categorization of Liquid Substances - List 1: Pure or technically pure products

International Agency for Research on Cancer (IARC) Carcinogens

International Air Transport Association (IATA) Dangerous Goods Regulations

International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List

OECD Representative List of High Production Volume (HPV) Chemicals

WHO Guidelines for Drinking-water Quality - Guideline values for chemicals that are of health significance in drinking-water

No data available for silica crystalline - quartz as CAS: 122304-48-7, CAS: 122304-49-8, CAS: 12425-26-2, CAS: 1317-79-9, CAS: 70594-95-5, CAS: 87347-84-0.

## Section 16 - OTHER INFORMATION

### INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
silica crystalline -	14808- 60- 7, 122304- 48- 7, 122304- 49- 8, 12425- 26- 2,
quartz	1317- 79- 9, 70594- 95- 5, 87347- 84- 0

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.

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

[www.chemwatch.net/references](http://www.chemwatch.net/references).

The (M)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.

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