Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

GRANOSITE GRANOPRIME RAPID SEAL

PRODUCT USE

■ Used according to manufacturer's directions.

SUPPLIER

Company: Granosite Address: 4 Steel Street Blacktown NSW, 2148 Australia Telephone: +61 2 9621 6255 Emergency Tel:**+61 1800 039 008** Fax: +61 2 9831 4244

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

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

RISK

•None under normal operating conditions.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	0/
	CAS RN	%
acrylic polymer emulsion		>60
pigment		1-10
2, 2, 4- trimethyl- 1, 3- pentanediol monoisobutyrate	25265-77-4	1-5
ammonium hydroxide	1336-21-6	<0.1
other ingredients determined not to be hazardous		balance
water	7732-18-5	10-30

Section 4 - FIRST AID MEASURES

SWALLOWED

If swallowed do NOT induce vomiting.

- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.

- Observe the patient carefully.

- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.

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.

- Seek medical attention without delay; if pain persists or recurs seek medical attention.

- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

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, aerosols or combustion products are inhaled remove from contaminated area.
- Other measures are usually unnecessary.

NOTES TO PHYSICIAN

Treat symptomatically.

For acute or short term repeated exposures to ammonia and its solutions:

- Mild to moderate inhalation exposures produce headache, cough, bronchospasm, nausea, vomiting, pharyngeal and retrosternal pain and conjunctivitis. Severe inhalation produces laryngospasm, signs of upper airway obstruction (stridor, hoarseness, difficulty
- in speaking) and, in excessively, high doses, pulmonary oedema.

- Warm humidified air may soothe bronchial irritation.

- Test all patients with conjunctival irritation for corneal abrasion (fluorescein stain, slit lamp exam)
- Dyspneic patients should receive a chest X-ray and arterial blood gases to detect pulmonary oedema.

Section 5 - FIRE FIGHTING MEASURES

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

■ carbon dioxide (CO2), other pyrolysis products typical of burning organic material.

- Non combustible.

- Not considered a significant fire risk, however containers may burn.

FIRE INCOMPATIBILITY

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

HAZCHEM

None

Section 6 - ACCIDENTAL RELEASE MEASURES

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.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- DO NOT allow clothing wet with material to stay in contact with skin.
- 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.

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/m³	STEL ppm	STEL mg/m ³
Australia Exposure Standards	Granosite GranoBasecoat ER (Ammonia)	25	17	35	24
The following materials had no • 2, 2, 4- trimethyl- 1, 3- pentar • water:			CAS:25265- 77- CAS:7732- 18- 9	- 4 CAS:77- 68- 9 5	I

MATERIAL DATA

AMMONIUM HYDROXIDE:

GRANOSITE GRANOPRIME RAPID SEAL:

■ for exposure to ammonia gas/ vapours:

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.

2,2,4-TRIMETHYL-1,3-PENTANEDIOL MONOISOBUTYRATE:

■ 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.

WATER:

No exposure limits set by NOHSC or ACGIH.

PERSONAL PROTECTION

RESPIRATOR

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

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], [AS/NZS 1336 or national equivalent].

HANDS/FEET

• Wear chemical protective gloves, eg. PVC.

- Wear safety footwear or safety gumboots, eg. Rubber.

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:

- frequency and duration of contact,

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- chemical resistance of glove material,
- glove thickness and
- dexterity.

OTHER

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

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 "adds" and "removes" air in the work environment.

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 liquid with an acrylic odour; miscible with water.

PHYSICAL PROPERTIES

Liquid. Mixes with water.

State Melting Range (°C) Boiling Range (°C) Flash Point (°C) Decomposition Temp (°C) Autoignition Temp (°C) Upper Explosive Limit (%) Lower Explosive Limit (%)

Volatile Component (%vol)

Liquid Not Available 100 approx Not Applicable Not Available Not Applicable Not Applicable Not Applicable

Not Available

Molecular Weight Viscosity Solubility in water (g/L) pH (1% solution) pH (as supplied) Vapour Pressure (kPa) Specific Gravity (water=1) Relative Vapour Density (air=1) Evaporation Rate Not Applicable Not Available Misc ible Not Available Not Available Not Available >1 Not Available

Not Available

Section 10 - STABILITY AND REACTIVITY

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

SWALLOWED

Accidental ingestion of the material may be damaging to the health of the individual.

EYE

• There is some evidence to suggest that this material can cause eye irritation and damage in some persons.

SKIN

■ There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Open cuts, abraded or irritated skin should not be exposed to this material.

Entry into the blood-stream, through, for example, cuts, abrasions 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.

INHALED

■ The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

CHRONIC HEALTH EFFECTS

■ Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

Prolonged or repeated minor exposure to ammonia gas/vapour may cause long-term irritation to the eyes, nose and upper respiratory tract. Repeated exposure or prolonged contact may produce dermatitis, and conjunctivitis.<</>

There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment.

TOXICITY AND IRRITATION

■ Not available. Refer to individual constituents.

Section 12 - ECOLOGICAL INFORMATION

No data

Ecotoxicity				
Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
2, 2, 4- trimethyl- 1, 3- pentanediol monoisobutyrate	LOW	No Data Available	LOW	HIGH
ammonium hydroxide	LOW	No Data Available	LOW	HIGH

Section 13 - DISPOSAL CONSIDERATIONS

Containers may still present a chemical hazard/ danger when empty.

- Return to supplier for reuse/ recycling if possible.

Otherwise:

- If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.

- Where possible retain label warnings and MSDS and observe all notices pertaining to the product.

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area.

A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction.

- 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 land-fill specifically licenced to accept chemical and / or pharmaceutical wastes 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

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: ADG7, UN, IATA, IMDG

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE None

REGULATIONS

Regulations for ingredients

2,2,4-trimethyl-1,3-pentanediol monoisobutyrate (CAS: 25265-77-4,77-68-9) is found on the

following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk"

ammonium hydroxide (CAS: 1336-21-6) is found on the following regulatory lists;

"Australia Exposure Standards", "Australia Hazardous Substances", "Australia Inventory of Chemical Substances (AICS)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6", "CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Council of Chemical Associations (ICCA) - High Production Volume List", "International Fragrance Association (IFRA) Survey: Transparency List", "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)", "IMO IBC Code Chapter 18: List of products to which the Code does not apply", "International Fragrance Association (IFRA) Survey: Transparency List", "OSPAR National List of Candidates for Substitution – Norway"

No data for Granosite GranoBasecoat ER (CW: 4781-53)

Section 16 - OTHER INFORMATION

Denmark Advisory list for selfclassification of dangerous substances					
Substance	CAS	Suggested codes			
2, 2, 4- trimethyl- 1, 3- pentanediol monoisobutyrate	25265- 77- 4	N; R50			
2, 2, 4- trimethyl- 1, 3- pentanediol monoisobutyrate	77- 68- 9	N; R50			

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name

2, 2, 4- trimethyl- 1, 3- pentanediol monoisobutyrate

CAS 25265- 77- 4, 77- 68- 9

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.

• 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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Issue Date: 30-Mar-2012 Print Date: 30-Mar-2012

This is the end of the MSDS.