

MAPEI GRANIRAPID B

Chemwatch Material Safety Data Sheet
Issue Date: Thu 31-Mar-2005

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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

MAPEI GRANIRAPID B

SYNONYMS

"synthetic polymer water based dispersion"

PRODUCT USE

Part B of a two-pack cement based adhesive. Requires that the two parts be mixed by hand or mixer before use, in accordance with manufacturers directions. Mix only as much as is required. Do not return the mixed material to the original containers.

SUPPLIER

Company: Mapei Australia P/L
Address:
12 Parkview Drive
Archerfield
QLD, 4108
AUS
Telephone: +61 7 3276 5000
Fax: +61 7 3276 5076

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

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

POISONS SCHEDULE

None

RISK

May produce discomfort of the respiratory system and skin*.
* (limited evidence).

SAFETY

Do not breathe gas/fumes/vapour/spray.
Avoid contact with skin.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
synthetic polymer dispersion, as styrene/ butadiene rubber latex	61789-96-6	> 60
bacteriacide		<1
pigment, unspecified		< 1
water	7732-18-5	30-60

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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 eyes:

- Wash out immediately with water.
- If irritation continues, 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.
- Other measures are usually unnecessary.

NOTES TO PHYSICIAN

Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Water spray or fog.
- Alcohol stable foam.
- Dry chemical powder.
- Carbon dioxide.

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

- Non combustible.
 - Not considered to be a significant fire risk.
 - Expansion or decomposition on heating may lead to violent rupture of containers.
 - Decomposes on heating and may produce toxic/ irritating fumes.
 - May emit acrid smoke.
- May emit corrosive fumes.

FIRE INCOMPATIBILITY

None known.

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Section 5 - FIRE FIGHTING MEASURES

HAZCHEM

None

Personal Protective Equipment

PERSONAL PROTECTION EQUIPMENT

Gloves, boots (chemical resistant).

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

Slippery when spilt.

- 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

Slippery when spilt.

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.
- Stop leak if safe to do so.
- Contain spill with sand, earth or vermiculite.
- Collect recoverable product into labelled containers for recycling.
- Neutralise/decontaminate residue.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.
- 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:

water 500 mg/m³

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

water 500 mg/m³

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

water 500 mg/m³

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

water 500 mg/m³

American Industrial Hygiene Association (AIHA)

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Section 6 - ACCIDENTAL RELEASE MEASURES

Ingredients considered according exceed 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

- Avoid all personal contact, including inhalation.
 - Wear protective clothing when risk of exposure occurs.
 - Use in a well-ventilated area.
 - Avoid contact with moisture.
 - 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 storing and handling recommendations.
 - Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.
- DO NOT allow clothing wet with material to stay in contact with skin.

SUITABLE CONTAINER

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

STORAGE INCOMPATIBILITY

None known.

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.
 - 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

No data available for styrene/ butadiene rubber latex as (CAS: 61789-96-6)

No data available for water as (CAS: 7732-18-5)

None assigned. Refer to individual constituents.

INGREDIENT DATA

STYRENE/ BUTADIENE RUBBER LATEX:

TLV TWA: 0.001 mg/m³ (as total proteins) Inhalable fraction skin sensitiser

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

as rubber processing fume:

MEL-TWA: 0.6 mg/m³ as cyclohexane solubles [HSE, UK]

BRMA-TWA: 0.25 mg/m³ as cyclohexane solubles [BRMA Code of Practice]

Rubber fume is a complex and indeterminate mixture of substances and is defined as "fume evolved in the mixing, milling and blending of natural rubber and synthetic polymers combined with chemicals, and in the processes which convert the resultant blend into finished products or parts thereof, and including any inspection procedures where fume continues to be evolved".

"Fume" generally describes solid particles generated by chemical reactions, or by condensation from the gaseous state, usually after volatilisation from melted substances, and often accompanied by a chemical reaction such as oxidation or thermal breakdown.

Several chemical agents may occur in rubber fume which are experimental or animal carcinogens, however, given the number of chemicals used or formed during rubber making, difficulties arise in attributing a particular effect to a given exposure.

Stomach cancer has been associated with work in jobs early in the production line; lung and lower oesophagus cancer with all work processes; and lymphomas with jobs where co-exposure to solvents occurs. Other cancers have also been reported with liver tumours appearing as a secondary phenomenon. No no-effect levels have been determined.

Two studies showed no excess of bladder cancer in workers entering the industry after 1950: the excess risk before that date is thought to result from exposure to residual beta-naphthylamines previously used as anti-oxidants.

as rubber process dust:

MEL-TWA: 6 mg/m³ [HSE, UK]

Rubber process dust is a complex, variable mixture of particulates defined as "dust arising in the stages of rubber manufacture where ingredients are handled, weighed, added to or mixed with natural or synthetic elastomers. It does not include dusts arising from the abrasion of cured rubber but occurs during the preparation of compounds of either synthetic or natural rubber.

There is some evidence that occupational exposure to rubber dusts produces an excess incidence of stomach cancer. HSE data concluded that there was a small but significant excess of stomach cancer associated with the initial processes in rubber manufacture. Stomach cancer shows a marked social class gradient, which may lead to an over-estimation of the risk.

One report from the USA stated that exposure in rubber processing areas produces pulmonary disease but this has not been supported by UK epidemiology nor reports from the industry.

No no-effect level has been determined. The MEL was considered appropriate because it was felt reasonably practical for industry to comply with this value.

WATER:

No exposure limits set by NOHSC or ACGIH.

PERSONAL PROTECTION

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

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

Wear chemical protective gloves, eg. PVC.
Wear safety footwear or safety gumboots, eg. Rubber.

OTHER

- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.
- Eye wash unit.

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:
"Forsberg Clothing Performance Index".
The effect(s) of the following substance(s) are taken into account in the computer-generated selection: water

Glove selection is based on a modified presentation of the:
"Forsberg Clothing Performance Index".
The effect(s) of the following substance(s) are taken into account in the computer-generated selection:
Protective Material CPI *.

BUTYL	A
NEOPRENE	A
VITON	A
PVA	C
NATURAL RUBBER	C

Glove selection is based on a modified presentation of the:
"Forsberg Clothing Performance Index".
The effect(s) of the following substance(s) are taken into account in the computer-generated selection:
Protective Material CPI *.

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

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 special circumstances. If risk of overexposure exists, wear approved respirator. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection. Provide adequate ventilation in warehouses and enclosed storage areas. 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:
solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone 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 away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

White liquid with a characteristic odour.
Dispersible 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): Not available.
Relative Vapour Density (air=1): Not available.
Lower Explosive Limit (%): Not applicable
Autoignition Temp (°C): Not available.
State: Liquid

Boiling Range (°C): 100
Specific Gravity (water=1): 1.01
pH (as supplied): Not available
Vapour Pressure (kPa): Not available
Evaporation Rate: Not available
Flash Point (°C): Not applicable
Upper Explosive Limit (%): Not applicable
Decomposition Temp (°C): 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

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 (eg. 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.

EYE

Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).

SKIN

There is some evidence to suggest that the material may cause mild but significant inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering.
Skin contact is not thought to have harmful health effects (as classified under

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Section 11 - TOXICOLOGICAL INFORMATION

EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.

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

There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.

The material has NOT been classified by EC Directives or other classification systems as "harmful by inhalation". This is because of the lack of corroborating animal or human evidence. In the absence of such evidence, care should be taken nevertheless to ensure exposure is kept to a minimum and that suitable control measures be used, in an occupational setting to control vapours, fumes and aerosols.

Not normally a hazard due to non-volatile nature of product.

CHRONIC HEALTH EFFECTS

This material contains a substantial amount of polymer considered to be of low concern. These are classified under having MWs of between 1000 to 10000 with less than 25% of molecules with MWs under 1000 and less than 10% under 500; or having a molecular weight average of over 10000. Functional groups contained on the polymer are then classified into risk categories. Being classified as a polymer of "low concern" does not mean that there are no hazards associated with the chemical. Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.

TOXICITY AND IRRITATION

Not available. Refer to individual constituents.

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

STYRENE/ BUTADIENE RUBBER LATEX:

TOXICITY

as UCAR Latex 110 (OBS)

Oral (rat) LD50: 71000 mg/kg

Dermal (rabbit) LD50: > 20000 mg/kg

IRRITATION

Skin (rabbit): 500 mg(open)-mild

WATER:

No significant acute toxicological data identified in literature search.

Section 12 - ECOLOGICAL INFORMATION

DO NOT discharge into sewer or waterways.

Section 13 - DISPOSAL CONSIDERATIONS

- 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.

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Section 14 - TRANSPORTATION INFORMATION

Dangerous Goods Class: None
Subrisk: None
UN/NA Number: None
Packing Group: None
Labels Required:
Additional Shipping Information:
International Transport Regulations:
IMO Dangerous Goods class: None
IMO Packing group: None
IATA Dangerous goods class: None
Cargo Instructions:
Cargo Max:
Passenger Instructions:
Passenger Max:
Special Provisions: None, None

HAZCHEM

None

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE

None

REGULATIONS

styrene/ butadiene rubber latex (CAS: 61789-96-6) is found on the following regulatory lists:
Australian Inventory of Chemical Substances (AICS)

water (CAS: 7732-18-5) is found on the following regulatory lists:
Australian Inventory of Chemical Substances (AICS)

Section 16 - OTHER INFORMATION

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