**Chemwatch Material Safety Data Sheet** 

Issue Date: 18-Apr-2007

CC317TCP

CHEMWATCH 5044-47 Version No:4 CD 2007/1 Page 1 of 7

## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

**MAPEI MAPESIL AC** 

**SYNONYMS** 

"silicone sealant"

**PRODUCT USE** 

Applied using a hand trowel or spreader. Cured material solid has high heat resistance, is practically non combustible, but is decomposed by near red heat. Sealant and adhesive. (VOC per CA South Coast Air Quality Management District, Rule 1168)

SUPPLIER

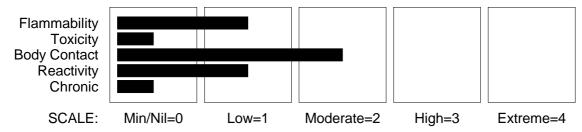
Company: Mapei Australia Pty Ltd

Address: 12 Parkview Drive Archerfield QLD, 4108

QLD, 4108 AUS

Telephone: +61 7 3276 5000 Fax: +61 7 3276 5076

#### **HAZARD RATINGS**



#### 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 Irritating to skin.

SAFETY

Safety Codes Safety Phrases S24 Avoid contact with skin.

S401 To clean the floor and all objects contaminated by this material, use water and detergent.

S46 If swallowed, IMMEDIATELY contact Doctor or Poisons Information Centre. (show this container or label).

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME dimethylsiloxane, hydroxy- terminated ethyltriacetoxysilane NOTE: During curing or on exposure to moist air product generates acetic acid acetic acid glacial CAS RN 70131-67-8 17689-77-9 % >60 1-<5

64-19-7

**Chemwatch Material Safety Data Sheet** 

Issue Date: 18-Apr-2007

CC317TCP

**CHEMWATCH 5044-47 Version No:4** CD 2007/1 Page 2 of 7

## **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.

SKIN

If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear
- Flush skin and hair with running water (and soap if available).

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**

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog Large fires only.

#### FIRE FIGHTING

- 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 courses.
- Use water delivered as a fine spray to control fire and cool adjacent 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

- High temperature decomposition products include silicon dioxide, small amounts of formaldehyde, formic acid, acetic acid and traces of silicon polymers.
- These gases may ignite and, depending on circumstances, may cause the resin/polymer to ignite.
- An outer skin of silica may also form. Extinguishing of fire, beneath the skin, may be difficult.
- Combustible.
- Slight fire hazard when exposed to heat or flame.
- Heating may cause expansion or decomposition leading to violent rupture of containers.
- On combustion, may emit toxic fumes of carbon monoxide (CO).
- May emit acrid smoke.
- Mists containing combustible materials may be explosive.

Combustion products include: carbon dioxide (CO2), other pyrolysis products typical of burning organic material. May emit corrosive fumes.

### FIRE INCOMPATIBILITY

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

**HAZCHEM: None** 

Personal Protective Equipment

Gloves, boots (chemical resistant).

## Section 6 - ACCIDENTAL RELEASE MEASURES

**EMERGENCY PROCEDURES** 

**Chemwatch Material Safety Data Sheet** 

Issue Date: 18-Apr-2007

CC317TCP

**CHEMWATCH 5044-47 Version No:4** CD 2007/1 Page 3 of 7

**Section 6 - ACCIDENTAL RELEASE MEASURES** 

#### **MINOR SPILLS**

Slippery when spilt.

- Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Wear impervious gloves and safety goggles.
- Trowel up/scrape up.
- Place spilled material in clean, dry, sealed container.
- Flush spill area with water.
- Clean up all spills immediately.
- Avoid breathing vapours/ aerosols or dusts and avoid contact with skin and eyes.
- Place in a suitable labelled container for waste disposal.

#### **MAJOR SPILLS**

Slippery when spilt.

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.

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.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- DO NOT allow material to contact humans, exposed food or food utensils.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately. Launder contaminated clothing before re-use.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

### **SUITABLE CONTAINER**

- Metal can or drum
- Packaging 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.
- Protect containers against physical damage and check regularly for leaks. - Observe manufacturer's storing and handling recommendations.

#### Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CO Source	NTROLS Material	TWA ppm	TWA mg/m³	STEL ppm	STEL mg/m³	Peak ppm	Peak mg/m³	TWA F/CC
Australia Exposure Standards	acetic acid glacial (Acetic acid)	10	25	15	37			

Chemwatch Material Safety Data Sheet Issue Date: 18-Apr-2007

CC317TCP

CHEMWATCH 5044-47 Version No:4 CD 2007/1 Page 4 of 7

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Source	Material	TWA ppm	TWA mg/m³	STEL ppm	STEL mg/m³	Peak ppm	Peak mg/m³	TWA F/CC

The following materials had no OELs on our records

• dimethylsiloxane, hydroxy-terminated:

CAS:70131-67-8

CAS:63148-60-7

ethyltriacetoxysilane:

CAS:17689-77-9

#### PERSONAL PROTECTION

#### RESPIRATOR

Type AB-P 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

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.

#### **ENGINEERING CONTROLS**

General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed 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:

solvent, vapours, degreasing etc., evaporating

from tank (in still air)

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)

direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts,

drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of

rapid air motion)

grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid

air motion).

Air Speed:

0.25- 0.5 m/s (50- 100 f/min)

0.5- 1 m/s (100- 200 f/min.)

1- 2.5 m/s (200- 500 f/min)

2.5- 10 m/s (500- 2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range

1: Room air currents minimal or favourable to capture

2: Contaminants of low toxicity or of nuisance value only

3: Intermittent, low production.

4: Large hood or large air mass in motion

Upper end of the range

1: Disturbing room air currents

2: Contaminants of high toxicity

3: High production, heavy use

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.

**Chemwatch Material Safety Data Sheet** 

Issue Date: 18-Apr-2007

CC317TCP

**CHEMWATCH 5044-47 Version No:4** CD 2007/1 Page 5 of 7

## **Section 9 - PHYSICAL AND CHEMICAL PROPERTIES**

#### **APPEARANCE**

Family of products which vary in their physical properties as a result of variations in production. Data presented here is for typical family member. Material cures / solidifies by reacting with atmospheric moisture and this process generates irritating acetic acid vapour. Coloured paste with acetic acid-like odour; does not mix with water.

PHYSICAL PROPERTIES Liquid. Does not mix with water. Sinks in water.

Molecular Weight: Not applicable Melting Range (°C): Not available Solubility in water (g/L): Immiscible pH (1% solution): Not applicable Volatile Component (%vol): 18.5 g/l (VOC) Relative Vapour Density (air=1): Not available Lower Explosive Limit (%): Not available Autoignition Temp (℃): Not available State: Non slump paste

Boiling Range (℃): Not available Specific Gravity (water=1): 1.03 pH (as supplied): Not applicable Vapour Pressure (kPa): Not available Evaporation Rate: Not available Flash Point (℃): Not available Upper Explosive Limit (%): Not available Decomposition Temp (℃): Not available Viscosity: Not Available

#### Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

#### CONDITIONS CONTRIBUTING TO INSTABILITY

Product is considered stable and hazardous polymerisation will not occur.

### Section 11 - TOXICOLOGICAL INFORMATION

#### POTENTIAL HEALTH EFFECTS

**ACUTE HEALTH EFFECTS** Irritating to skin.

CHRONIC HEALTH EFFECTS

#### TOXICITY AND IRRITATION

Not available. Refer to individual constituents.

DIMETHYLSILOXANE, HYDROXY-TERMINATED: **TOXICITY** 

Oral (rat) LD50: >5000 mg/kg \* Oral (rat) LD50: >40000 mg/kg \*\* Inhalation (rat) LC50: >535 mg/l \*\* \* [Mobay Chemical Corp]

\*\*[GE]

ETHYLTRIACETOXYSILANE:

No data of toxicological significance identified in literature search.

ACETIC ACID GLACIAL:

TOXICITY

Oral (human) TDLo: 1.47 mg/kg Unreport (man) LDLo: 308 mg/kg Skin (human):50mg/24hr - Mild Skin (rabbit):525mg (open)- SEVERE Oral (rat) LD50: 3310 mg/kg Eye (rabbit): 0.05mg (open)- SEVERE

Inhalation (human) TCLo: 816 ppm/3 min Inhalation (rat) LCLo: 16000 ppm/4 hr Dermal (rabbit) LD50: 1060 mg/kg

The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

**IRRITATION** 

Nil Reported

IRRITATION

The material may cause severe 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. Repeated exposures may produce severe ulceration. 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.

**Chemwatch Material Safety Data Sheet** 

Issue Date: 18-Apr-2007

CC317TCP

**CHEMWATCH 5044-47 Version No:4** CD 2007/1 Page 6 of 7

Section 11 - TOXICOLOGICAL INFORMATION

#### Section 12 - ECOLOGICAL INFORMATION

No data

#### 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

#### Section 15 - REGULATORY INFORMATION

#### POISONS SCHEDULE: None

#### REGULATIONS

dimethylsiloxane, hydroxy-terminated (CAS: 70131-67-8) 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 C

Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 4
OECD Representative List of High Production Volume (HPV) Chemicals

dimethylsiloxane, hydroxy-terminated (CAS: 63/148-60-7) is found on the following regulatory lists; Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix C Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 4

ethyltriacetoxysilane (CAS: 17689-77-9) is found on the following regulatory lists;

Australia Inventory of Chemical Substances (AICS)

International Council of Chemical Associations (ICCA) - High Production Volume List

OECD Representative List of High Production Volume (HPV) Chemicals

acetic acid glacial (CAS: 64-19-7) is found on the following regulatory lists;

Australia Exposure Standards

Australia High Volume Industrial Chemical List (HVICL)

Australia Illicit Drug Reagents/Essential Chemicals - Category III

Australia Inventory of Chemical Substances (AICS)

Australia National Pollutant Inventory

Australia Poisons Schedule

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

CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified,

in Accordance with GMP

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

#### Section 16 - OTHER INFORMATION

## **INGREDIENTS WITH MULTIPLE CAS NUMBERS**

Ingredient Name dimethylsiloxane, hydroxy- terminated

70131-67-8, 63148-60-7

This document is copyright. Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH. TEL (+61 3) 9572 4700.

**Chemwatch Material Safety Data Sheet** 

Issue Date: 18-Apr-2007

CC317TCP

CHEMWATCH 5044-47 Version No:4 CD 2007/1 Page 7 of 7 Section 16 - OTHER INFORMATION

Issue Date: 18-Apr-2007 Print Date: 18-Apr-2007