

# ABA STANDARD TILESET

Hazard Alert Code:  
HIGH

Chemwatch Material Safety Data Sheet

Revision No: 4

Chemwatch 22971

Issue Date: 12-Jul-2008

CD 2009/2

## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NAME

ABA Standard Tileset

### SYNONYMS

"cement based adhesive", Norcross

### PRODUCT USE

Adhesive suitable for fixing ceramic tiles including mosaics and marble, to rendered walls and concrete walls and floors.

### SUPPLIER

Company: Ardex Australia Pty Ltd

Address:

20 Powers Road

Seven Hills

NSW, 2147

AUS

Telephone: 1800 224 070

Fax: +61 2 9838 7817

### HAZARD RATINGS

|               | Min | Max |  |
|---------------|-----|-----|--|
| Flammability: | 0   |     |  |
| Toxicity:     | 2   |     |  |
| Body Contact: | 3   |     |  |
| Reactivity:   | 0   |     |  |
| Chronic:      | 2   |     |  |

Min/Nil=0  
Low=1  
Moderate=2  
High=3  
Extreme=4



## 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

- » Causes burns.
- » Risk of serious damage to eyes.
- » Inhalation may produce health damage\*.
- » Cumulative effects may result following exposure\*.
- » Possible respiratory and skin sensitiser\*.

\* (limited evidence).

#### SAFETY

- » Keep locked up.
- » Do not breathe dust.
- » Avoid contact with eyes.
- » Wear suitable protective clothing.
- » Use only in well ventilated areas.
- » Keep container in a well ventilated place.
- » To clean the floor and all objects contaminated by this material use water and detergent.
- » Take off immediately all contaminated clothing.
- » In case of accident or if you feel unwell IMMEDIATELY contact Doctor or Poisons Information Centre (show label if possible).

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| NAME            | CAS RN      | %     |
|-----------------|-------------|-------|
| portland cement | 65997-15-1  | 10-60 |
| graded sand     | 14808-60-7. | 10-60 |

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cellulosic thickener

0-1

## Section 4 - FIRST AID MEASURES

### SWALLOWED

»

- For advice, contact a Poisons Information Centre or a doctor.
- 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
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

### EYE

» If this product comes in contact with the eyes:

- Immediately hold eyelids apart and flush the eye continuously with 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.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.
- 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 dust is inhaled, remove from contaminated area.
- Encourage patient to blow nose to ensure clear breathing passages.
- Ask patient to rinse mouth with water but to not drink water.
- Seek immediate medical attention.

### NOTES TO PHYSICIAN

» Treat symptomatically as for strong alkaline material.

## 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.
- 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 a significant fire risk, however containers may burn.

Decomposes on heating and produces toxic fumes of: caustic compounds.

### FIRE INCOMPATIBILITY

» None known.

### HAZCHEM

None

### Personal Protective Equipment

Gas tight chemical resistant suit.

Limit exposure duration to 1 BA set 30 mins.

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## Section 6 - ACCIDENTAL RELEASE MEASURES

### EMERGENCY PROCEDURES

#### MINOR SPILLS

»

- Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Wear protective clothing, gloves, safety glasses and dust respirator.
- Use dry clean up procedures and avoid generating dust.
- Sweep up or
- Vacuum up (consider explosion-proof machines designed to be grounded during storage and use).
- Place in clean drum then flush area with water.

#### MAJOR SPILLS

»

- Clear area of personnel and move upwind.
- If inhalation risk of exposure exists, wear SAA approved dust respirator.
- Collect recoverable product into labelled containers for recycling.

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

## Section 7 - HANDLING AND STORAGE

### PROCEDURE FOR HANDLING

» Avoid generating and breathing dust

- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Atmosphere should be checked against exposure standards
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Always wash hands with soap and water after handling.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.

### SUITABLE CONTAINER

» Multi-ply paper bag with sealed plastic liner or heavy gauge plastic bag.

NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse. Check that all containers are clearly labelled and free from leaks. Packing as recommended by manufacturer.

### STORAGE INCOMPATIBILITY

» Avoid storage with oxidisers and strong acids.

### STORAGE REQUIREMENTS

»

- Keep dry

Keep containers securely sealed when not in use. Absorbs water and carbon dioxide from the air.

- 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.

### SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS



X: Must not be stored together

O: May be stored together with specific preventions

+: May be stored together

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE CONTROLS

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| Source                       | Material                              | TWA<br>ppm | TWA<br>mg/m <sup>3</sup> | STEL<br>ppm | STEL<br>mg/m <sup>3</sup> | Peak<br>ppm | Peak<br>mg/m <sup>3</sup> | TWA<br>F/CC |
|------------------------------|---------------------------------------|------------|--------------------------|-------------|---------------------------|-------------|---------------------------|-------------|
| Australia Exposure Standards | portland cement (Portland cement (a)) |            | 10                       |             |                           |             |                           |             |

The following materials had no OELs on our records

- graded sand: CAS:14808-60-7

## EMERGENCY EXPOSURE LIMITS

| Material        | Revised IDLH Value (mg/m <sup>3</sup> ) | Revised IDLH Value (ppm) |
|-----------------|---|--------------------------|
| portland cement | 5,000                                   |                          |
| graded sand     | 50                                      |                          |

## MATERIAL DATA

» None assigned. Refer to individual constituents.

## INGREDIENT DATA

### PORTLAND CEMENT:

» 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:

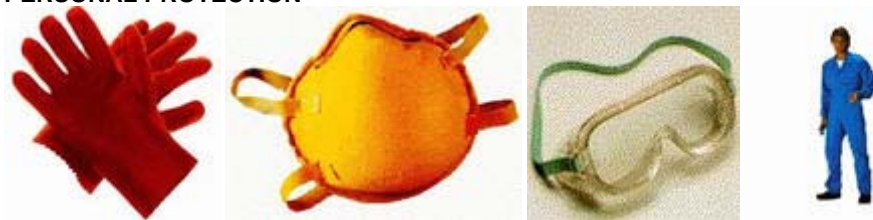
- cause inflammation
- cause increased susceptibility to other irritants and infectious agents
- lead to permanent injury or dysfunction
- permit greater absorption of hazardous substances and
- acclimate the worker to the irritant warning properties of these substances thus increasing the risk of overexposure.

Portland cement is considered to be a nuisance dust that does not cause fibrosis and has little potential to induce adverse effects on the lung.

### GRADED SAND:

NOTE: This product contains negligible amount of respirable dust.

## 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

»

- Barrier cream
- and
- Wear chemical protective gloves, eg. PVC.
  - Wear safety footwear or safety gumboots, eg. Rubber

## OTHER

»

- Overalls.
- Eyewash unit.

Ensure there is ready access to a safety shower.

## RESPIRATOR

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| »                 |                      |                      |                        |  |
|-------------------|----------------------|----------------------|------------------------|--|
| Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator |  |
| 10 x ES           | P1 Air-line*         | --                   | PAPR-P1 -              |  |
| 50 x ES           | Air-line**           | P2                   | PAPR-P2                |  |
| 100 x ES          | -                    | P3                   | -                      |  |
|                   |                      | Air-line*            | -                      |  |
| 100+ x ES         | -                    | Air-line**           | PAPR-P3                |  |

\* - Negative pressure demand \*\* - Continuous flow.

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**

» Use in a well-ventilated area.

- Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction.
- Exhaust ventilation should be designed to prevent accumulation and recirculation of particulates in the workplace.
- If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered. Such protection might consist of:
  - particle dust respirators, if necessary, combined with an absorption cartridge;
  - filter respirators with absorption cartridge or canister of the right type;
  - fresh-air hoods or masks
- Build-up of electrostatic charge on the dust particle, may be prevented by bonding and grounding.
- Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting.

Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to efficiently remove the contaminant.

| Type of Contaminant:   | Air Speed:                   |
|--|------------------------------|
| 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 4-10 m/s (800-2000 f/min) for extraction of crusher dusts generated 2 metres 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.

**Section 9 - PHYSICAL AND CHEMICAL PROPERTIES****APPEARANCE**Fine grey powder; insoluble in water. Bulk density: 1.6 kg/dm<sup>3</sup> (approximately).**PHYSICAL PROPERTIES**

Solid.

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): 11 (paste form)

Volatile Component (%vol): Not applicable

Relative Vapour Density (air=1): Not applicable

Lower Explosive Limit (%): Not applicable

Autoignition Temp (°C): Not applicable

State: Divided solid

Boiling Range (°C): Not applicable

Specific Gravity (water=1): 1.6 (bulk)

pH (as supplied): Not applicable

Vapour Pressure (kPa): Not applicable

Evaporation Rate: Not applicable

Flash Point (°C): Not applicable

Upper Explosive Limit (%): Not applicable

Decomposition Temp (°C): Not available

Viscosity: Not available

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## Section 10 - CHEMICAL STABILITY

### 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

» Considered an unlikely route of entry in commercial/industrial environments.

The material is discomforting to the gastro-intestinal tract and is harmful if swallowed.

##### EYE

» The solid/dust is highly discomforting, may be abrasive to the eyes and 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.

##### SKIN

» The dust is extremely discomforting to the skin and is capable of causing skin reactions which may lead to dermatitis.

Handling wet cement can cause dermatitis. Cement when wet is quite alkaline and this alkali action on the skin contributes strongly to cement contact dermatitis since it may cause drying and defatting of the skin which is followed by hardening, cracking, lesions developing, possible infections of lesions and penetration by soluble salts.

Cement contact dermatitis (CCD) may occur when contact shows an allergic response, which may progress to sensitisation. Sensitisation is due to soluble chromates (chromate compounds) present in trace amounts in some cements and cement products. Soluble chromates readily penetrate intact skin. Cement dermatitis can be characterised by fissures, eczematous rash, dystrophic nails, and dry skin; acute contact with highly alkaline mixtures may cause localised necrosis.

##### INHALED

» The dust is discomforting to the upper respiratory tract and lungs and may even cause in some cases, sensitisation.

Respiratory sensitisation may result in allergic/asthma like responses; from coughing and minor breathing difficulties to bronchitis with wheezing, gasping.

Effects on lungs are significantly enhanced in the presence of respirable particles.

### CHRONIC HEALTH EFFECTS

» Principal routes of exposure are by accidental skin and eye contact and inhalation of generated dusts.

Products when wet may be quite alkaline and this alkali action on the skin may contribute to cement contact dermatitis by causing drying and defatting of the skin which may be followed by hardening, cracking, development of lesions, possible infections of lesions and penetration by soluble salts.

### TOXICITY AND IRRITATION

» Not available. Refer to individual constituents.

#### PORTLAND CEMENT:

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

» 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.

#### GRADED SAND:

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

» No data of toxicological significance identified in literature search.

### CARCINOGEN

graded sand International Agency for Research on Cancer (IARC) Carcinogens

Group 1

## Section 12 - ECOLOGICAL INFORMATION

Refer to data for ingredients, which follows:

PORTLAND CEMENT:

GRADED SAND:

### Ecotoxicity

| Ingredient | Persistence:<br>Water/Soil | Persistence:<br>Air | Bioaccumulation | Mobility |
|------------|----------------------------|---------------------|-----------------|----------|
| ABA        |                            | No                  |                 |          |

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|          |      |
|----------|------|
| Standard | data |
| Tileset  |      |
| portland | No   |
| cement   | data |
| graded   | No   |
| sand     | 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 (ADG7)

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

## Section 15 - REGULATORY INFORMATION

### POISONS SCHEDULE

None

### REGULATIONS

ABA Standard Tileset (CAS: None):

No regulations applicable

Regulations for ingredients

portland cement (CAS: 65997- 15- 1) is found on the following regulatory lists;

Australia Exposure Standards

Australia High Volume Industrial Chemical List (HVICL)

Australia Inventory of Chemical Substances (AICS)

OECD Representative List of High Production Volume (HPV) Chemicals

graded sand (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

International Agency for Research on Cancer (IARC) Carcinogens

OECD Representative List of High Production Volume (HPV) Chemicals

## Section 16 - OTHER INFORMATION

» 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. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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