

# UNCONTROLLED

## SLIP REDUCING ADDITIVE GRADE CA-100

ChemWatch Material Safety Data Sheet  
Issue Date: Thu 31-Oct-2002

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### Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### PRODUCT NAME

SLIP REDUCING ADDITIVE GRADE CA-100

#### SYNONYMS

calcined alumina      Cobblestone Paving

#### PRODUCT USE

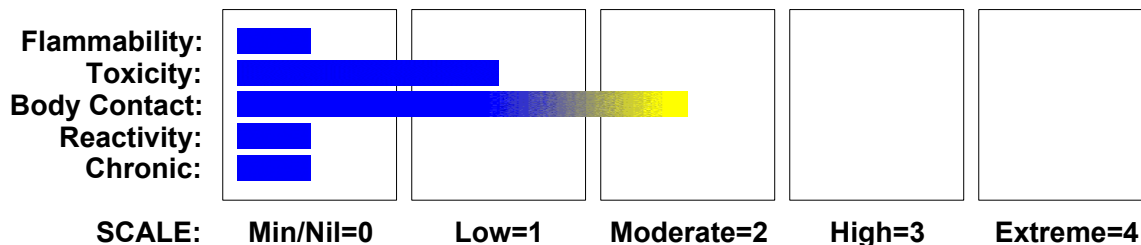
Additive to improve slip resistance.

#### SUPPLIER

Company: Cobblestone Paving Australia P/L  
Address:  
PO Box 2057  
Burleigh Mdc, Gold Coast  
QLD, 4220  
AUS

Company: Cobblestone Paving Australia P/L  
Address:  
45 Alex Fisher Drive  
Burleigh Gardens  
QLD, 4220  
AUS  
Telephone: +61 7 5593 7766  
Fax: 07 5593 7777

#### HAZARD RATINGS



### 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

Cumulative effects may result following exposure\*.

May produce discomfort of the eyes\*.

\* (limited evidence)

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## Section 2 - HAZARDS IDENTIFICATION ...

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### SAFETY

Do not breathe dust.  
Avoid contact with skin.  
Wear eye/face protection.  
In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.

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## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

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NAME	CAS RN	%
calcined alumina	1344-28-1.	100

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## Section 4 - FIRST AID MEASURES

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### 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.
- 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:

- 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 dust is inhaled, remove from contaminated area.
- Encourage patient to blow nose to ensure clear passage of breathing.
- If irritation or discomfort persists seek medical attention.

### NOTES TO PHYSICIAN

Treat symptomatically.

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## Section 5 - FIRE FIGHTING MEASURES

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### EXTINGUISHING MEDIA

Use fire fighting procedures suitable for surrounding area.  
DO NOT use halogenated fire extinguishing agents.

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## Section 5 - FIRE FIGHTING MEASURES ...

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### 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.

### HAZCHEM

None

### Personal Protective Equipment

Glasses:  
Chemical goggles.

Gloves:  
General purpose rubber glove.

Respirator:  
Particulate

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## Section 6 - ACCIDENTAL RELEASE MEASURES

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### EMERGENCY PROCEDURES

#### MINOR SPILLS

- Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Wear impervious gloves and safety glasses.
- 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 spilled material in clean, dry, sealable, labelled container.

#### 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.

### 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

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## Section 6 - ACCIDENTAL RELEASE MEASURES ...

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life-threatening health effects is:

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

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

American Industrial Hygiene Association (AIHA)

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

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## Section 7 - HANDLING AND STORAGE

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### 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.
- When handling DO NOT eat, drink or smoke.
- Always wash hands with soap and water after handling.
- Avoid physical damage to containers.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.

### SUITABLE CONTAINER

Paper bag with sealed plastic liner

NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse.

or.

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

Very inert, chemically.

### STORAGE REQUIREMENTS

- Keep dry.
- Store under cover.
- Protect containers against physical damage.
- Observe manufacturer's storing and handling recommendations.

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE CONTROLS

#3300

#### EXPOSURE STANDARDS FOR MIXTURE

"Worst Case" computer-aided prediction of spray/ mist or fume/ dust components and concentration:

Composite Exposure Standard for Mixture (TWA) :4 mg/m<sup>3</sup>.

Operations which produce a spray/mist or fume/dust, introduce particulates to the breathing zone.

If the breathing zone concentration of ANY of the components listed below is exceeded, "Worst Case" considerations deem the individual to be overexposed.

Component Breathing Zone ppm Breathing Zone mg/m<sup>3</sup> Mixture Conc (%)

Component	Breathing Zone (mg/m <sup>3</sup> )	Mixture Conc (%)
calcined alumina	4.0000	100.0

#### INGREDIENT DATA

##### CALCINED ALUMINA:

PEL Total particulate: 15mg/m<sup>3</sup> [OSHA Z1]

PEL Respirable fraction : 5mg/m<sup>3</sup> [OSHA Z1]

aluminium oxide, containing no asbestos and < 1% crystalline silica

ES TWA: 10 mg/m<sup>3</sup> inspirable dust

TLV TWA: 10 mg/m<sup>3</sup> total dust A4

NOTE: This substance has been classified by the ACGIH as A4 NOT classifiable as causing Cancer in humans

OES TWA: 10 mg/m<sup>3</sup> total inhalable dust

OES TWA: 4 mg/m<sup>3</sup> respirable dust

MAK value: 6 mg/m<sup>3</sup>

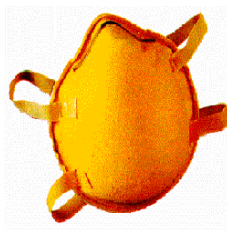
- measured as the respirable fraction of the aerosol.

MAK values, and categories and groups are those recommended within the Federal Republic of Germany

The experimental and clinical data indicate that aluminium oxide acts as an "inert" material when inhaled and seems to have little effect on the lungs nor does it produce significant organic disease or toxic effects when exposures are kept under reasonable control.

[Documentation of the Threshold Limit Values], ACGIH, Sixth Edition

### PERSONAL PROTECTION



#### EYE

- Safety glasses with side shields; or as required,
- Chemical goggles.
- Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them.

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

### HANDS/FEET

Wear general protective gloves: i.e. Disposable polythene gloves or Cotton gloves or Light weight rubber gloves, with Barrier cream preferably Safety footwear.

### OTHER

- Eyewash unit.
- Overalls

### 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:
  - (a): particle dust respirators, if necessary, combined with an absorption cartridge;
  - (b): filter respirators with absorption cartridge or canister of the right type;
  - (c): 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

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

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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.

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## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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### APPEARANCE

White to off-white fine crystalline powder with no odour; insoluble in water.

### PHYSICAL PROPERTIES

Solid.  
Does not mix with water.  
Sinks in water.

Molecular Weight: Not applicable  
Melting Range (°C): >2000  
Solubility in water (g/L): Immiscible  
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 applicable  
State: Divided solid

Boiling Range (°C): Not available  
Specific Gravity (water=1): >3  
pH (as supplied): Not available  
Vapour Pressure (kPa): Not available  
Evaporation Rate: Not applicable  
Flash Point (°C): Not applicable  
Upper Explosive Limit (%): Not applicable  
Decomposition Temp (°C): Not available

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## Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

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### CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

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## Section 11 - TOXICOLOGICAL INFORMATION

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### POTENTIAL HEALTH EFFECTS

#### ACUTE HEALTH EFFECTS SWALLOWED

Considered an unlikely route of entry in commercial/industrial environments.  
The material may be harmful if swallowed in large quantity

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## Section 11 - TOXICOLOGICAL INFORMATION ...

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### EYE

The dust may produce eye discomfort and abrasive eye inflammation.

### SKIN

The material may be mildly discomforting and abrasive to the skin

### INHALED

The dust may be discomforting to the upper respiratory tract.  
Inhalation of dust may aggravate a pre-existing respiratory condition such as asthma, bronchitis, emphysema

### CHRONIC HEALTH EFFECTS

Principal routes of exposure are usually by skin contact with the material and inhalation of generated dust. As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

### Slip Reducing Additive Grade CA-100

None assigned. Refer to individual constituents.  
unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances

CALCINED ALUMINA:  
Not available. Refer to individual constituents.

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## Section 12 - ECOLOGICAL INFORMATION

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No data for Slip Reducing Additive Grade CA-100.  
Refer to data for ingredients, which follows:

CALCINED ALUMINA:

No data for calcined alumina.

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## Section 13 - DISPOSAL CONSIDERATIONS

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- 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.

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## Section 14 - TRANSPORTATION INFORMATION

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Shipping Name:  
NONE  
Dangerous Goods Class: None  
UN/NA Number: None  
ADR Number:  
Packing Group: None  
Labels Required:  
Additional Shipping Information:  
International Transport Regulations:

continued...

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## Section 14 - TRANSPORTATION INFORMATION ...

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IMO: None

### HAZCHEM

None

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## Section 15 - REGULATORY INFORMATION

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### POISONS SCHEDULE

None

### REGULATIONS

No data available for calcined alumina (CAS: 1344-28-1).

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## Section 16 - OTHER INFORMATION

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