Parex Streetscape Adhesive

Product Identifier

<table>
<thead>
<tr>
<th>Product name</th>
<th>Parex Streetscape Adhesive</th>
</tr>
</thead>
</table>

Synonyms
Not Available

Other means of identification
Not Available

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses
Use according to manufacturer’s directions. Cement based ceramic tile adhesive. Add water to obtain the required consistency, then apply with a notched trowel.

Details of the supplier of the safety data sheet

Registered company name
Parex Group (ParexGroup)

Address
67 Elizabeth Street Wetherill Park NSW 2164 Australia

Telephone
+61 2 9616 3000

Fax
+61 2 9725 5551

Website
www.davco.com.au

Email
marketing@davco.com.au

Emergency telephone number

Association / Organisation
Not Available

Emergency telephone numbers
1800 039 008

Other emergency telephone numbers
Not Available

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

CHEMWATCH HAZARD RATINGS

<table>
<thead>
<tr>
<th>Flammability</th>
<th>0</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Body Contact</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Chronic</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Poisons Schedule
Not Applicable

Classification [1]
Skin Corrosion/Impression Category 2, Serious Eye Damage Category 1, Skin Sensitizer Category 1, Germ cell mutagenicity Category 2, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation), Specific target organ toxicity - repeated exposure Category 2, Chronic Aquatic Hazard Category 3, Chronic Aquatic Hazard Category 3

Legend:

Label elements

Hazard pictogram(s)

<table>
<thead>
<tr>
<th>SIGNAL WORD</th>
<th>DANGER</th>
</tr>
</thead>
</table>

Hazard statement(s)

H315 Causes skin irritation.

H318 Causes serious eye damage.

Continued...
**H317** May cause an allergic skin reaction.

**H341** Suspected of causing genetic defects.

**H335** May cause respiratory irritation.

**H373** May cause damage to organs through prolonged or repeated exposure.

**H412** Harmful to aquatic life with long lasting effects.

**Supplementary statement(s)**
Not Applicable

**CLP classification (additional)**
Not Applicable

**Precautionary statement(s) Prevention**
- **P201** Obtain special instructions before use.
- **P260** Do not breathe dust/fume/gas/mist/vapours/spray.
- **P271** Use only outdoors or in a well-ventilated area.
- **P280** Wear protective gloves/protective clothing/eye protection/face protection.

**Precautionary statement(s) Response**
- **P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **P306+P313** IF exposed or concerned: Get medical advice/attention.
- **P310** Immediately call a POISON CENTER or doctor/physician.
- **P362** Take off contaminated clothing and wash before reuse.

**Precautionary statement(s) Storage**
- **P405** Store locked up.
- **P403+P233** Store in a well-ventilated place. Keep container tightly closed.

**Precautionary statement(s) Disposal**
- **P501** Dispose of contents/container in accordance with local regulations.

**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**

**Substances**
See section below for composition of Mixtures

**Mixtures**

<table>
<thead>
<tr>
<th>CAS No</th>
<th>%[weight]</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>14808-60-7</td>
<td>50-80</td>
<td>graded sand</td>
</tr>
<tr>
<td>65997-15-1</td>
<td>20-50</td>
<td>portland cement</td>
</tr>
<tr>
<td>68131-74-8</td>
<td>1-20</td>
<td>fly ash - low quartz</td>
</tr>
<tr>
<td>544-17-2</td>
<td>1-5</td>
<td>calcium formate</td>
</tr>
<tr>
<td>Not Available</td>
<td>1-10</td>
<td>polymer powder</td>
</tr>
</tbody>
</table>

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye Contact**
- 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 Contact**
- 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.

**Inhalation**
- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital, or doctor, without delay.

**Ingestion**
- 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.
Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

For acute or short term repeated exposures to dichromates and chromates:
- Absorption occurs from the alimentary tract and lungs.
- The kidney excretes about 60% of absorbed chromate within 8 hours of ingestion. Urinary excretion may take up to 14 days.
- Establish airway, breathing and circulation. Assist ventilation.
- Induce emesis with Ipecac Syrup if patient is not convulsing, in coma or obtunded and if the gag reflex is present.
- Otherwise use gastric lavage with endotracheal intubation.
- Fluid balance is critical. Peritoneal dialysis, haemodialysis or exchange transfusion may be effective although available data is limited.
- British Anti-Lewisite, ascorbic acid, folic acid and EDTA are probably not effective.
- There are no antidotes.
- Primary irritation, including chrome ulceration, may be treated with ointments comprising calcium-sodium-EDTA. This, together with the use of frequently renewed dressings, will ensure rapid healing of any ulcer which may develop.

The mechanism of action involves the reduction of Cr (VI) to Cr(III) and subsequent chelation; the irritant effect of Cr(III)/ protein complexes is thus avoided. [ILO Encyclopedia]

[Ellenhorn and Barceloux: Medical Toxicology]

- Manifestation of aluminium toxicity include hypercalcaemia, anaemia, Vitamin D refractory osteodystrophy and a progressive encephalopathy (mixed dysarthria-apraxia of speech, asthenia, tremulousness, myoclonus, dementia, focal seizures). Bone pain, pathological fractures and proximal myopathy can occur.
- Symptoms usually develop insidiously over months to years (in chronic renal failure patients) unless dietary aluminium loads are excessive.
- Serum aluminium levels above 60 ug/ml indicate increased absorption. Potential toxicity occurs above 100 ug/ml and clinical symptoms are present when levels exceed 200 ug/ml.
- Dextrorphan has been used to treat dialysis encephalopathy and osteomalacia. CaNa2EDTA is less effective in chelating aluminium.

[Ellenhorn and Barceloux: Medical Toxicology]

For acute or short-term repeated exposures to highly alkaline materials:
- Respiratory stress is uncommon but present occasionally because of soft tissue edema.
- Unless endotracheal intubation can be accomplished under direct vision, cricothyroidotomy or tracheotomy may be necessary.
- Oxygen is given as indicated.
- The presence of shock suggests perforation and mandates an intravenous line and fluid administration.
- Damage due to alkaline corrosives occurs by liquefaction necrosis whereby the saponification of fats and solubilisation of proteins allow deep penetration into the tissue. Alkalis continue to cause damage after exposure.

INGESTION:
- Milk and water are the preferred diluents
- No more than 2 glasses of water should be given to an adult.
- Neutalising agents should never be given since exothermic heat reaction may compound injury.
- * CATHARSIS and emesis are absolutely contra-indicated.
- * Activated charcoal does not absorb alkali.
- * Gastric lavage should not be used.

Supportive care involves the following:
- Withhold oral feedings initially.
- If endoscopy confirms transmucosal injury start steroids only within the first 48 hours.
- Carefully evaluate the amount of tissue necrosis before assessing the need for surgical intervention.
- Patients should be instructed to seek medical attention whenever they develop difficulty in swallowing (dysphagia).

SKIN AND EYE:
- Injury should be irrigated for 20-30 minutes.
- Eye injuries require saline. [Ellenhorn & Barceloux: Medical Toxicology]

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media
- Water spray or fog.
- Foam.
- Dry chemical powder.
- BCF (where regulations permit).

Special hazards arising from the substrate or mixture

<table>
<thead>
<tr>
<th>Fire Incompatibility</th>
<th>None known.</th>
</tr>
</thead>
</table>

Advice for firefighters

<table>
<thead>
<tr>
<th>Fire Fighting</th>
<th>Alert Fire Brigade and tell them location and nature of hazard.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wear breathing apparatus plus protective gloves in the event of a fire.</td>
</tr>
<tr>
<td></td>
<td>Prevent, by any means available, spillage from entering drains or water courses.</td>
</tr>
<tr>
<td></td>
<td>Use fire fighting procedures suitable for surrounding area.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fire/Explosion Hazard</th>
<th>Non combustible.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not considered a significant fire risk, however containers may burn.</td>
</tr>
<tr>
<td></td>
<td>silicon dioxide (SiO2) When aluminium oxide dust is dispersed in air, firefighters should wear protection against inhalation of dust particles, which can also contain hazardous substances from the fire absorbed on the alumina particles.</td>
</tr>
</tbody>
</table>

| HAZCHEM | Not Applicable |

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions
Methods and material for containment and cleaning up

### Minor Spills
- Remove all ignition sources.
- Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Control personal contact with the substance, by using protective equipment.
- Environmental hazard - contain spillage.

### Major Spills
- Environmental hazard - contain spillage.
- Moderate hazard.
- **CAUTION**: Advise personnel in area.
- Alert Emergency Services and tell them location and nature of hazard.
- Control personal contact by wearing protective clothing.

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

---

**SECTION 7 HANDLING AND STORAGE**

**Precautions for safe handling**

**Safe 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.

**Other information**
- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry area protected from environmental extremes.
- Store away from incompatible materials and foodstuff containers.

**Conditions for safe storage, including any incompatibilities**

**Suitable container**
- Polyethylene or polypropylene container.
- Check all containers are clearly labelled and free from leaks.

**Storage incompatibility**
- Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.
- Avoid contact with copper, aluminium and their alloys.

---

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Control parameters**

**OCCUPATIONAL EXPOSURE LIMITS (OEL)**

<table>
<thead>
<tr>
<th>INGREDIENT DATA</th>
<th>Source</th>
<th>Material name</th>
<th>TWA</th>
<th>STEL</th>
<th>Peak</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia Exposure Standards</td>
<td>graded sand</td>
<td>Silica - Crystalline: Quartz (respirable dust)</td>
<td>0.1 mg/m³</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Australia Exposure Standards</td>
<td>graded sand</td>
<td>Quartz (respirable dust)</td>
<td>0.1 mg/m³</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Australia Exposure Standards</td>
<td>portland cement</td>
<td>Portland cement</td>
<td>10 mg/m³</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EMERGENCY LIMITS</th>
<th>Ingredient</th>
<th>Material name</th>
<th>TEEL-1</th>
<th>TEEL-2</th>
<th>TEEL-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>graded sand</td>
<td>Silica, crystalline-quartz; (Silicon dioxide)</td>
<td>0.075 mg/m³</td>
<td>33 mg/m³</td>
<td>200 mg/m³</td>
<td></td>
</tr>
<tr>
<td>calcium formate</td>
<td>Calcium formate</td>
<td>8.5 mg/m³</td>
<td>71 mg/m³</td>
<td>710 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

**Ingredient**

- Original IDLH
- Revised IDLH

- graded sand: N.E. mg/m³ / N.E. ppm
- portland cement: N.E. mg/m³ / N.E. ppm
- fly ash - low quartz: Not Available
- calcium formate: Not Available
- polymer powder: Not Available
- N.E.: Not Established

**Exposure controls**

**Appropriate 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.

**Personal protection**
- 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...
Skin protection

See Hand protection below

Hands/feet protection

NOTE:
- The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.
- Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.

The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.
- Personal hygiene is a key element of effective hand care.
- Neoprene rubber gloves

Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present.
- polychloroprene.
- nitrile rubber.
- butyl rubber.

Body protection

See Other protection below

Other protection

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

Thermal hazards

Not Available

Respiratory protection

Particulate. (AS/NZS 1716 & 1715, EN 143:2000 & 149:001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor

<table>
<thead>
<tr>
<th>Protection Factor</th>
<th>Half-Face Respirator</th>
<th>Full-Face Respirator</th>
<th>Powered Air Respirator</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 10 x ES</td>
<td>P1 Air-line*</td>
<td>-</td>
<td>PAPR-P1</td>
</tr>
<tr>
<td>up to 50 x ES</td>
<td>Air-line**</td>
<td>P2</td>
<td>PAPR-P2</td>
</tr>
<tr>
<td>up to 100 x ES</td>
<td>- P3</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>100+ x ES</td>
<td>- Air-line*</td>
<td>-</td>
<td>PAPR-P3</td>
</tr>
</tbody>
</table>

* - Negative pressure demand
** - Continuous flow

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.
- The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).
- Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.
- Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.
- Use approved positive flow mask if significant quantities of dust becomes airborne.
- Try to avoid creating dust conditions.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Grey powder; dispersible in water</td>
</tr>
<tr>
<td>Physical state</td>
<td>Divided Solid</td>
</tr>
<tr>
<td>Odour</td>
<td>Not Available</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not Available</td>
</tr>
<tr>
<td>pH (as supplied)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Initial boiling point and</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>boiling range (°C)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Upper Explosive Limit (%)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Lower Explosive Limit (%)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Vapour pressure (kPa)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Relative density (Water = 1)</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>Not Available</td>
</tr>
<tr>
<td>n-octanol / water</td>
<td>Not Available</td>
</tr>
<tr>
<td>Auto-ignition temperature (°C)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not Available</td>
</tr>
<tr>
<td>Viscosity (cSt)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Molecular weight (g/mol)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Surface Tension (dyn/cm or mN/m)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Taste</td>
<td>Not Available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not Available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not Available</td>
</tr>
<tr>
<td>Volatile Component (%vol)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Gas group</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Continued...
SECTION 10 STABILITY AND REACTIVITY

| Reactivity | See section 7 |
| Chemical stability | Unstable in the presence of incompatible materials. |
| Possibility of hazardous reactions | See section 7 |
| Conditions to avoid | See section 7 |
| Incompatible materials | See section 7 |
| Hazardous decomposition products | See section 7 |

SECTION 11 TOXICOLOGICAL INFORMATION

**Information on toxicological effects**

<table>
<thead>
<tr>
<th>Exposure Route</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inhaled</strong></td>
<td>The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Inhalation of dusts, generated by the material during the course of normal handling, may be damaging to the health of the individual. Inhalation may result in ulcers or sores of the lining of the nose (nasal mucosa), and lung damage. Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled. If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures. Effects on lungs are significantly enhanced in the presence of respirable particles.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>Accidental ingestion of the material may be damaging to the health of the individual. Not normally a hazard due to the physical form of product. The material is a physical irritant to the gastro-intestinal tract.</td>
</tr>
<tr>
<td><strong>Skin Contact</strong></td>
<td>This material can cause inflammation of the skin on contact in some persons. 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 detoling of the skin which is followed by hardening, cracking, lesions developing, possible infections of lesions and penetration by soluble salts. Skin contact may result in severe irritation particularly to broken skin. Ulceration known as &quot;chrome ulcers&quot; may develop. Chrome ulcers and skin cancer are significantly related. Open cuts, abraded or irritated skin should not be exposed to this material.</td>
</tr>
<tr>
<td><strong>Eye</strong></td>
<td>If applied to the eyes, this material causes severe eye damage.</td>
</tr>
<tr>
<td><strong>Chronic</strong></td>
<td>Substance accumulation, in the human body, is likely and may cause some concern following repeated or long-term occupational exposure. Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems. Strong evidence exists that this substance may cause irreversible mutations (though not lethal) even following a single exposure. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Laboratory (in vitro) and animal studies show, exposure to the material may result in a possible risk of irreversible effects, with the possibility of producing mutation. Animal testing shows long term exposure to aluminium oxides may cause lung disease and cancer, depending on the size of the particle. The smaller the size, the greater the tendencies of causing harm. 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. Overexposure to the breathable dust may cause coughing, wheezing, difficulty in breathing and impaired lung function. Chronic symptoms may include decreased vital lung capacity and chest infections. Repeated exposures in the workplace to high levels of fine-divided dusts may produce a condition known as pneumoconiosis, which is the lodgement of any inhaled dusts in the lung, irrespective of the effect. This is particularly true when a significant number of particles less than 0.5 microns (1/50000 inch) are present. Chronic excessive intake of iron have been associated with damage to the liver and pancreas. People with a genetic disposition to poor control over iron are at an increased risk. Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following. On the basis of limited epidemiological or animal data, it has been concluded that prolonged inhalation of the material, in an occupational setting, may increase the risk of cancer in humans.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Material</th>
<th>TOXICITY</th>
<th>IRRITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parex Streetscape Adhesive</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>graded sand</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>portland cement</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>fly ash - low quartz</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>
## SECTION 12 ECOLOGICAL INFORMATION

### Toxicity

<table>
<thead>
<tr>
<th>ENDPOINT</th>
<th>TEST DURATION (HR)</th>
<th>SPECIES</th>
<th>VALUE</th>
<th>SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parex Streetscape Adhesive</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>graded sand</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Portland cement</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>fly ash - low quartz</td>
<td>NOEC</td>
<td>Fish</td>
<td>ca.700.0-2000mg/L</td>
<td>1</td>
</tr>
<tr>
<td>calcium formate</td>
<td>LC50</td>
<td>Fish</td>
<td>&gt;=1000mg/L</td>
<td>1</td>
</tr>
</tbody>
</table>

### Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

For Chromium: Chromium is poorly absorbed by cells found in microorganisms, plants and animals. Hexavalent chromate anions are readily transported into cells and toxicity is closely linked to the higher oxidation state.

Ecotoxicity - Toxicity in Aquatic Organisms: Chromium is harmful to aquatic organisms in very low concentrations. Organisms consumed by fish species are very sensitive to low levels of chromium.

DO NOT discharge into sewer or waterways.

---

**Legend:**
- – Data Not Available to make classification
- – Data available to make classification
- – Data available but does not fill the criteria for classification

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data
Persistence and degradability

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Persistence: Water/Soil</th>
<th>Persistence: Air</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No Data available for all ingredients</td>
<td>No Data available for all ingredients</td>
</tr>
</tbody>
</table>

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Bioaccumulation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No Data available for all ingredients</td>
</tr>
</tbody>
</table>

Mobility in soil

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Mobility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No Data available for all ingredients</td>
</tr>
</tbody>
</table>

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

- Containers may still present a chemical hazard when empty.
- Return to supplier for reuse/recycling if possible.
- Otherwise:
  - If container cannot 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 SDS 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. In some areas, certain wastes must be tracked.
- A Hierarchy of Controls seems to be common - the user should investigate:
  - Reduction
  - Reuse
  - Recycling
  - Disposal (if all else fails)
- This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use.
  - 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 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 TRANSPORT INFORMATION

Labels Required

<table>
<thead>
<tr>
<th>Marine Pollutant</th>
<th>HAZCHEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

<table>
<thead>
<tr>
<th>GRADED SAND(14808-60-7.) IS FOUND ON THE FOLLOWING REGULATORY LISTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia Exposure Standards</td>
</tr>
<tr>
<td>Australia Hazardous Substances Information System - Consolidated Lists</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PORTLAND CEMENT(65997-15-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia Exposure Standards</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FLY ASH - LOW QUARTZ(68131-74-8.) IS FOUND ON THE FOLLOWING REGULATORY LISTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia Inventory of Chemical Substances (AICS)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CALCULIUM FORMATE(544-17-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia Inventory of Chemical Substances (AICS)</td>
</tr>
</tbody>
</table>

National Inventory Status

| Australia - AICS |
| Y |
Canada - DSL Y
Canada - NDSL N (portland cement; calcium formate; fly ash - low quartz; graded sand)
China - IECSC Y
Europe - EINEC / ELINCS / NLP Y
Japan - ENCS N (portland cement; calcium formate; fly ash - low quartz; graded sand)
Korea - KECI Y
New Zealand - NZIoC Y
Philippines - PICCS N (portland cement)
USA - TSCA Y

Legend:
Y = All ingredients are on the inventory
N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

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.

The 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.

Definitions and abbreviations
PC – TWA: Permissible Concentration-Time Weighted Average
PC – STEL: Permissible Concentration-Short Term Exposure Limit
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit
IDLH: Immediately Dangerous to Life or Health Concentrations
OSF: Odour Safety Factor
NOAEL: No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index

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