



SAFETY DATA SHEET

COLOUR HARDENER

Issued: July 2015

Hazardous according to criteria of Safe Work Australia

1 PRODUCT & COMPANY UNDERTAKING IDENTIFICATION

Product Name: **COLOUR HARDENER**
Major Recommended Use: Concrete surface treatment for Slate-Crete™, Brick-Crete™ and general concreting
Company: EbbChem Pty Ltd (trading as ASC Building Supplies)
ABN: 90 169 877 954
Address: 12 Yale Drive, Epping, Victoria, 3076
Telephone Number: 61 (03) 9408 7722
Email: enquiries@ascbuildingsupplies.com.au
Web site: www.australianslate-crete.com.au



2 HAZARDS IDENTIFICATION

GHS Classification: GHS07 Specific target organ toxicity (single exposure): Category 3, Respiratory system
Skin Corrosion/Irritation: Category 2
Serious Eye Damage / Eye Irritation: Category 2A
GHS08 Specific target organ toxicity (repeated exposure): Category 2



GHS07



GHS08

Signal word: WARNING

Hazard statements: H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H373 May cause damage to organs via exposure

Precautionary statements:

Prevention
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P262 Do not get in eyes, on skin, or on clothing.
P264 Wash thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P284 Wear respiratory protection

Response
P302+352 IF ON SKIN (or hair): wash with plenty of soap and water
P304+340 Remove to fresh air and keep at rest in a comfortable breathing position
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call doctor/physician if you feel unwell as a result of exposure to the product
P321 Specific treatment is advised - see first aid instructions.
P332+337+313 If skin or eye irritation occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before re-use.

Storage P402+404 Store in a dry place. Store in closed packaging.

Disposal P501 Dispose of contents/ packaging as general waste.

Risk Statements: R21/22 Harmful in contact with skin and if swallowed
R41 Risk of serious damage to eyes.
R43 May cause sensitization by skin contact
R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation (applies to dust)
R66 Repeated exposure may cause skin dryness or cracking

Safety Statements: S22 Do not breathe dust
S24/25 Avoid contact with skin and eyes
S28 After contact with skin, wash immediately with plenty of water
S29 Do not empty into drains
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

Hazard Codes: Xn (harmful), Xi (irritant)

Poisons Schedule: Not scheduled

ADG CLASS: Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. Not regulated for transport of Dangerous Goods: UN, IATA, IMDG

Signs and Symptoms of Exposure (Acute effects):

Swallowed: Unlikely under normal conditions of use, but swallowing this product will result in abdominal discomfort.

Eye: Dust from this product may irritate the eyes causing watering and redness.

Skin: Due to product containing silica sand and dust, may be irritating and abrasive to the skin.

Chronic: Skin Prolonged or repeated skin contact may cause dry skin. Defatting of the skin can result in irritation and dermatitis (inflammation of the skin).

Inhaled: The dust may irritate the nose, throat and respiratory tract.

Chronic: Inhaled Repeated inhalation of silica sand dust containing crystalline silica may cause scarring of the lung (silicosis), lung cancer, and chronic bronchitis, and may increase the risk of scleroderma (thickening of the connective tissue) and kidney disease. Studies have shown that smoking increases the risk of bronchitis, silicosis and lung cancer in persons exposed to crystalline silica.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion	Classification
Silicon Dioxide (graded sand)	14808-60-7	30-60%	non-hazardous
containing respirable crystalline silica (quartz)		<0.001%	T; R48/23
Portland Cement	65997-15-1	30-60%	Xn; R20/21/22-36/37/38-43-66
containing hexavalent chromium Cr(VI)	1333-82-0	<0.0004%	
Silica, amorphous	69012-64-2	1-10%	T; R49
Inorganic Oxide pigment		1-10%	non-hazardous
Non-hazardous ingredients below reportable concentrations		1-10%	

4 FIRST AID MEASURES

Swallowed: If swallowed, do NOT induce vomiting, Give a glass of water and contact a doctor or Poisons Information Centre. Phone 13 11 26.

Eye: Immediately hold eye open and irrigate with water for 15 minutes and see a Doctor.

Skin: Remove any contaminated clothing and product. Wash skin thoroughly with mild soap/water. Seek medical advice if ill effect or irritation develops.

Inhaled: Move patient to fresh air. Give oxygen or artificial respiration if breathing has stopped or is laboured. Seek medical advice.

Advice to Doctor: Treat symptomatically.

For acute or short-term repeated exposures to highly alkaline materials:

Respiratory stress is uncommon but present occasionally because of soft tissue oedema. 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. Neutralizing 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 Tran mucosal 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]

5 FIRE FIGHTING MEASURES

NON-FLAMMABLE, NON-COMBUSTIBLE substance

- Suitable Extinguishing Media:** Presents no known fire or explosive hazards and forms no known hazardous decomposition products. Treat fire for materials actually involved in the fire.
- Special Exposure Hazards: (fire fighting)** Non-combustible. Not considered a fire risk, however containers may burn. Decomposition may produce toxic fumes off metal oxides. May emit poisonous fumes. May emit corrosive fumes. Personnel in vicinity and downwind should be evacuated.
- Special Fire Fighting Procedures:** Fire fighters should wear butyl rubber boots, gloves, and body suit and a self-contained breathing apparatus. Water spray should be used to cool intact containers.
Limit exposure duration to 1 BA set - 30 mins.

6 ACCIDENTAL RELEASE MEASURES

- Precautions:** Eliminate all sources of ignition. Wear protective clothing, boots, gloves, and eye protection.
- Methods for Cleaning Up:**
- MINOR SPILLS:** Remove all ignition sources. Clean up all spills immediately. Avoid contact with skin and eyes. Control personal contact by using protective equipment. Use dry clean up procedures and avoid generating dust. Place in a suitable labelled container for waste disposal.
- MAJOR SPILLS:** 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. Prevent, by any means available, spillage from entering drains or water courses. Recover product wherever possible.
IF DRY: Use dry clean up procedures and avoid generating dust. Collect residues and place in sealed plastic bags or other containers for disposal.
IF WET: Vacuum/shovel up and place in labelled containers for disposal. ALWAYS: Wash area down with large amounts of water and prevent runoff into drains. If contamination of drains or waterways occurs, advise Emergency Services.

7 HANDLING & STORAGE

- Handling:** Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. DO NOT allow material to contact exposed food or food utensils. 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.
- Storage:** Keep in cool, dry ventilated storage and in closed containers.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure to dust should be kept as low as practicable, and below the following Exposure Levels:

SUBSTANCE	Occupational Exposure Limits
Crystalline silica (quartz)	0.1 mg/m ³ TWA (time-weighted average) as respirable dust (≤ 7 microns particle equivalent aerodynamic diameter)
Portland Cement	10 mg/m ³ TWA as inspirable dust
Chromium VI (hexavalent)	0.05 mg/m ³ - sensitizer

- Exposure controls:** Wear protective equipment to comply with good occupational hygiene practice. Do not eat, drink or smoke at the work place.
- Engineering Controls:** Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust), and control of process conditions.
- Personal Protection:**
- Respiratory protection** If engineering controls are not effective in controlling airborne exposure to dust and to respirable crystalline silica wear a suitable P1 or P2 particulate respirator (AS/NZS 1715 and AS/NZS 1716). Use only respirators that bear the Australian Standards mark and are fitted and maintained correctly.
- Eye/face protection** Safety glasses with side shields or safety goggles should be worn to ensure all contact with eyes is avoided. Refer Australian Standards AS 1336 and AS/NZS 1337 for more information.

- Skin protection** Minimize contact with Portland Cement materials. When handling dry or wet cement, or wet concrete, personnel should wear protective clothing and impervious plastic or rubber gloves and footwear. Refer Australian Standards AS 2161, 2919 and AS/NZS 2210 and 4501 for more information. Never kneel in wet cement, or allow extended contact of skin with wet cement.
- Remove clothing which has become contaminated with wet or dry cement to avoid prolonged contact with the skin. If cement gets into boots, remove socks and boots immediately and wash skin thoroughly. Wash work clothes regularly. To avoid contamination of face and lips and ingestion, wash hands before eating or smoking.

9 PHYSICAL & CHEMICAL PROPERTIES

Appearance:	A fine powder in a range of colours
Odour:	Odourless
pH (when wet):	11 – 13 (very alkaline)
Particle Size:	Up to 20% of the fresh dry material may be respirable (below 10 microns)
Melting Point:	>1200°C
Boiling Point (at 760 mmHg):	Not applicable
Flashpoint:	Not flammable, will not burn
Flammability:	Non-flammable.
Explosive Limits:	Not applicable
Auto-ignition Temperature:	Not applicable
Oxidizing Properties:	Not applicable
Vapour Pressure (20°C):	Not applicable
Vapour Density (Air =1):	Not applicable
Solubility in Water:	Slight, reacts on mixing with water to form an alkaline (caustic) solution with pH >11
Viscosity:	Not applicable (powder)
Specific Gravity:	2.6 – 3.0
Bulk Density:	1.5 – 2.2
Volatile content:	< 1%

10 STABILITY & REACTIVITY

Conditions to Avoid:	Keep away from water and oxidizing agents.
Incompatibility (materials to avoid):	Oxidizing agents (eg hypochlorites), ethanol, acids (eg hydrochloric acid) and interhalogens (eg chlorine trifluoride). Reaction with peroxides may result in violent decomposition. Contact with water may increase product temperature 2-3°C
Hazardous Decomposition Products:	Hazardous polymerisation will not occur.
Hazardous Transformation Products:	Will not occur.

11 TOXICOLOGICAL INFORMATION

Short Term (Acute) Exposure:

Swallowed:	Unlikely to occur under normal conditions of use. Plastic or hardened concrete is abrasive and irritating to the mouth and throat and may cause abdominal discomfort, nausea, stomach cramps or vomiting.
Eyes:	Plastic concrete will cause severe irritation and may cause alkaline burns in contact with the eyes, with potential for serious and permanent eye damage. Concrete dust is irritating to the eyes, causing watering and redness. Exposure to plastic concrete or dust may aggravate pre-existing eye conditions.
Skin:	Plastic concrete is irritating, abrasive and drying to the skin and may cause alkaline burns if direct contact is made with wet concrete for any length of time. Concrete dust may be mildly irritating and abrasive to the skin due to its physical properties.
Inhaled:	Concrete dust is irritating to the nose, throat and lungs, resulting in coughing and sneezing. Pre-existing upper respiratory and lung diseases including asthma and bronchitis may be aggravated.

Long Term (Chronic) Exposure:

Eyes:	Concrete dust may cause irritation and inflammation of the eyes and aggravate pre-existing eye conditions.
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- Skin:** Repeated contact with plastic concrete or concrete dust may cause drying of the skin and can result alkaline burns. This condition is described as irritant contact dermatitis. Some individuals may experience allergic contact dermatitis because there are trace amounts of water soluble hexavalent chromium salts (chromium IV) present in Portland Cement. Once a person is sensitized to water soluble chromium salts any further skin exposure will bring back the symptoms.
- Inhaled:** Repeated exposure to concrete dust may result in increased nasal and respiratory secretions and coughing. High level exposures can increase the risk of bronchitis and pneumonia. Repeated inhalation of dust containing crystalline silica may result in an irreversible pulmonary fibrosis (scarring of the lung) termed silicosis, including acute or accelerated silicosis. Secondary infections such as bronchitis and tuberculosis are often associated with silicosis. It may also increase the risk of scleroderma (a disease affecting the skin, joints, blood vessels and internal organs) and other auto-immune disorders. Tobacco smoking is considered to increase the adverse effects of exposure to dust, including crystalline silica. Expectations require that individuals should be protected against even minor sensory irritations to dust.

Safe Work Australia classifies crystalline silica as a Hazardous Substance. The most current research indicates no excess risk of lung cancer or other cancers from using these products. Crystalline silica is recognised as a carcinogen by the International Agency for Research for Cancer (IARC). Hexavalent chromium(VI) is also recognized as a human carcinogen via inhalation.

12 ECOLOGICAL INFORMATION

- Ecotoxicity:** No data for product. Product forms an alkaline slurry when mixed with water. DO NOT discharge into sewer or waterways
- Persistence and Degradability :** Product is persistent and would have a low degradability.
- Mobility:** Low mobility would be expected in a landfill situation.

13 DISPOSAL CONSIDERATIONS

- Precautions:** Refer to Section 7 before handling the product.
- Waste disposal:** Recover or recycle if possible. Otherwise: dispose of this material and its packaging in accordance with local, state or national legislation.
- Product disposal:** Pre-mixed concrete and its packaging can be treated as a common waste for disposal or dumped into a landfill site in accordance with local authority guidelines. Measures should be taken to avoid dust generation during disposal, and exposure and personal precautions should be observed (see above). Keep away from any waterways including storm water and sewer drains.

14 TRANSPORT INFORMATION

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

Mode	Regulations	Class	Packing Group	Notes
-	UN	None allocated	Not applicable	
Sea	IMDG	None allocated	Not applicable	This material is not classified as dangerous under IMDG regulations
Road/Rail	ADG Code	None allocated	Not applicable	This material is not classified as dangerous according to the Australian Dangerous Goods Code
Air	IATA/ICAO	None allocated	Not applicable	This material is not classified as dangerous under IATA regulations

15 REGULATORY INFORMATION

EEC Symbol: Xn Harmful
Xi Irritant

GHS Classification:

- GHS07 Specific target organ toxicity (single exposure): Category 3, Respiratory system
Skin Corrosion/Irritation: Category 2
Serious Eye Damage / Eye Irritation: Category 2A
- GHS08 Specific target organ toxicity (repeated exposure): Category 2

Full text of H-Statements referred to under sections 2 and 3.

Eye Dam.	Serious eye damage
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H373	May cause damage to organs via exposure
Skin Corr.	Skin corrosion
STOT SE	Specific target organ toxicity (single exposure)
STOT RE	Specific target organ toxicity (repeated exposure)

EEC Council Directives relating to the classification, packaging and labelling of dangerous substances and preparations Risk (R) and Safety (S) phrases:

R21/22	Harmful in contact with skin and if swallowed
R41	Risk of serious damage to eyes.
R43	May cause sensitization by skin contact
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation
R66	Repeated exposure may cause skin dryness or cracking
S22	Do not breathe dust
S24/25	Avoid contact with skin and eyes
S28	After contact with skin, wash immediately with plenty of water
S29	Do not empty into drains
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.

16 OTHER INFORMATION

Uses and restrictions: Raw material for use in the construction industry.

MSDS distribution: The information in this document should be made available to all who may handle the product.

Reference: The content and format of this safety data sheet is in accordance with the 3rd Revised Edition of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia's Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals (2011)

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Revised to GHS guidelines

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