

CLEARBORE

ChemWatch Material Safety Data Sheet (REVIEW)
Issue Date: Mon 4-Dec-2006

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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

CLEARBORE

SYNONYMS

Bore water pump cleaner

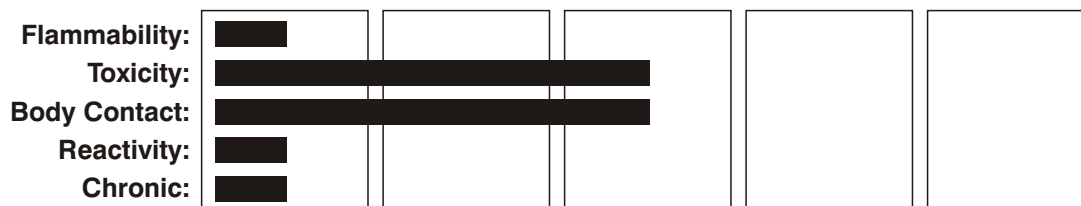
PRODUCT USE

Heavy duty water bore and pump cleaner.

SUPPLIER

Company: Clearbore Pty. Ltd.
Address: 26 Terrace Road, North Richmond NSW 2754, Australia
Telephone: 61 2 4571 3040
Fax: 61 2 4571 3041

HAZARD RATINGS



SCALE: 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

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Section 2 - HAZARDS IDENTIFICATION...

RISK

Harmful in contact with skin and if swallowed.
Irritating to eyes.
May produce skin discomfort*.
*(limited evidence)

SAFETY

Do not breathe dust.
Avoid contact with eyes.
Wear suitable protective clothing.
To clean the floor and all objects contaminated by this material, use water.
Keep away from food, drink and animal feeding stuffs.
Take off immediately all contaminated clothing.
In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.
If swallowed, IMMEDIATELY contact Doctor or Poisons Information Centre. (Show this container or label).
If you feel unwell contact Doctor or Poisons Information Centre. (Show the label if possible).

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
oxalic acid	144-62-7	>60
indicator dye		<1

Section 4 - FIRST AID MEASURES

SWALLOWED

Rinse mouth out with plenty of water.
If poisoning occurs, contact a doctor or Poisons Information Centre.
- 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.

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Section 4 - FIRST AID MEASURES...

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 fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prosthesis 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, preferable with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital, or doctor.

NOTES TO PHYSICIAN

Treatment must be prompt.

- Give immediately by mouth, a dilute solution of any soluble calcium salt; calcium lactate, lime water, finely pulverised chalk or plaster suspended in a large volume of water or milk. Large amounts of calcium are required to inactivate oxalate by precipitating it as the insoluble calcium salt. DO NOT give an emetic drug.
 - Perform gastric lavage carefully or not at all if severe mucosal injury is evident. Dilute lime water (calcium hydroxide) makes a good lavage fluid if used in large quantity.
 - Administer a slow intravenous injection of 10-20ml of calcium gluconate (10% solution) or of calcium chloride (5% solution). This injection may be repeated frequently to prevent hypocalcaemic tetany. Calcium gluconate (10ml) may also be given intramuscularly every few hours. Calcium compounds are never given subcutaneously; even the intramuscular route is hazardous in infants because of the incidence of sloughing.
 - In severe cases parathyroid extract (100 USP units) given intramuscularly.
 - Morphine may be necessary to control pain.
 - Treat shock by cautious intravenous injection of isotonic saline solution. Check for metabolic acidosis and infuse sodium bicarbonate if necessary.
 - Watch for oedema of the glottis late formation of oesophageal stricture.
 - Useful demulcents by mouth include milk of magnesia, bismuth subcarbonate, and mineral oil.
 - Prophylactic and therapeutic measures in anticipation of renal damage.
- [GOSSELIN SMITH HODGE: Clinical Toxicology of Commercial Products]

Section 5 - FIRE FIGHTING MEASURE

EXTINGUISHING MEDIA

Water spray or fog
Carbon dioxide
Dry chemical powder
Foam

continued...

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Section 5 - FIRE FIGHTING MEASURES...

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water course.
- Use water delivered as a fine spray to control fire and cool adjacent area.
- Avoid spraying water onto liquid pools.
- 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.

FIRE/EXPLOSION HAZARD

Combustible. Will burn if ignited.

HAZCHEM

None

PROTECTIVE EQUIPMENT

Glasses:-
Safety glasses, Chemical goggles, Full-face shield
Gloves:-
Butyl, Natural rubber, PVC
Respirator:
Particulate

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

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

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
 - Wear full body protective clothing with breathing apparatus.
 - Prevent, by any means available, spillage from entering drains or water course.
 - No smoking, naked lights or ignition sources.
 - Increase ventilation.
 - Stop leak if safe to do so.
 - Water spray or fog may be used to disperse / absorb vapour.
 - Contain or absorb spill with sand, earth or vermiculite.
 - Collect recoverable product into labelled containers for recycling.
 - Collect solid residues and seal in labelled drums for disposal.
 - Wash area and prevent runoff into drains.
 - After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.
 - If contamination of drains or waterways occurs, advise emergency services.

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

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Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Avoid generating and breathing dust.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of overexposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- DO NOT allow material to contact humans, exposed food or food utensils.
- Avoid smoking, naked lights or ignition sources.
- When handling, DO NOT eat, drink or smoke.
- Avoid contact with incompatible materials.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Working clothes should be laundered separately. Launder contaminated clothing before re-use.
- Use good occupational work practice.
- Observe manufacturer's storing/handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

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.
DO NOT use mild steel or galvanised containers.

STORAGE INCOMPATIBILITY

Avoid storage with oxidisers, strong alkalis and silver / silver compounds.

STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- No smoking, naked lights or ignition sources.
- 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.

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

None assigned. Refer to individual constituents.

EXPOSURE STANDARDS FOR MIXTURE

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

Composite Exposure Standard for Mixture (TWA): 1 mg/m³.

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 ³	Mixture Conc (%)
oxalic acid	1	100	0

INGREDIENT DATA

OXALIC ACID:

TLV TWA: 1mg/m³ [ACGIH]

TLV STEL: 2mg/m³ [ACGIH]

PEL TWA: 1mg/m³ [OSHA Z1]

TLV TWA: 1mg/m³; STEL: 2mg/m³

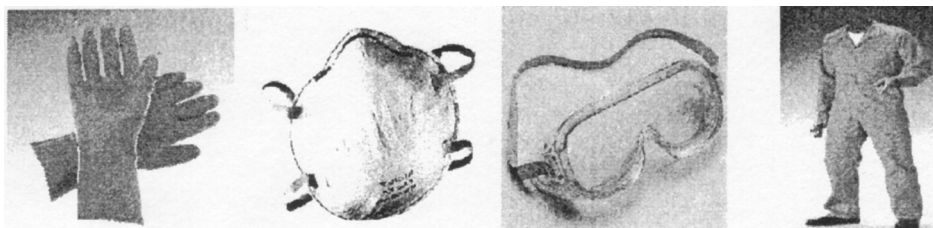
ES TWA: 1mg/m³; STEL: 2mg/m³

OES TWA: 1mg/m³; STEL: 2mg/m³

IDLH Level: 500mg/m³

There is only scant data regarding the toxicology of industrial exposure to airborne oxalates. There is no data regarding potential systemic toxicity or bioavailability of inhaled oxalates. The TLV-TWA (corresponding to 0.27 ppm on a molecular basis) is comparable to that of sulfuric acid and phosphoric acid and is thought to provide protection against the risk of eye and skin burns and respiratory tract irritation. The recommendation for a STEL is added to prevent irritation of skin and mucous membranes.

PERSONAL PROTECTION



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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION...

EYE

- Safety glasses with side shields
- Chemical goggles
- Full face shield
- Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them.

HANDS / FEET

- Rubber gloves
- Synthetic gloves
- Rubber boots

OTHER

- Overalls and PVC apron
- Ensure that there is ready access to eye wash unit

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 and adverse concentration of the substance in air should 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:

Direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)
Grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).

Air Speed:

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

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

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION...

Within each range the appropriate value depends on:

Lower end of the range

1. Room air currents minimal or favourable to capture
2. Contaminants of low toxicity or of nuisance value only
3. Intermittent, low production
4. Large hood or large air mass in motion

Upper end of the range

1. Disturbing room air currents
2. Contaminants of high toxicity
3. High production, heavy use
4. Small hood-local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the airspeed 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

Blue tinted granular powder. Faint odour. Soluble in water.

PHYSICAL PROPERTIES

Solid

Mixes with water

Molecular Weight:	Mixture	Boiling Point (°C):	Not available
Melting Range (°C):	Not available	Specific Gravity (water=1):	1.6
Solubility in Water (g/L):	Miscible	pH (as supplied):	Not applicable
pH (1% solution):	Not available	Vapour Pressure (kPa):	Not available
Volatile Component (%vol):	Not available	Evaporation Rate:	Not available
Relative Vapour Density (air=1):	Not available	Flash Point (°C):	Not available
Lower Explosive Limit (%):	Not applicable	Upper Explosive Limit (%):	Not applicable
Autoignition Temp (°C):	Not available	Decomposition Temp (°C):	> 157
State:	Divided Solid		

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

Presence of incompatible materials
Stable under normal storage conditions
Hazardous polymerisation will not occur

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Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACCUTE HEALTH EFFECTS

SWALLOWED

The material is corrosive to the gastro-intestinal tract, may cause severe mucous membrane damage and may be fatal if swallowed in quantity. Ingestion of low-molecular organic acid solutions may produce spontaneous haemorrhaging, production of blood clots, gastrointestinal damage and narrowing of the oesophagus and stomach entry.

Soluble or solubilised oxalates act as severe corrosive agents within the alimentary tract and may be lethal as a result of severe gastroenteritis and secondary shock. Where gastrointestinal symptoms are absent (as in the case with dilute solutions) systemic effects may dominate resulting in muscle twitching, cramps and depression of respiratory and cardiac functions. Other symptoms of poisoning include vomiting (often bloody with coffee spots), pain, weak and irregular pulse, headache, stiffness, convulsions, stupor and coma. Kidney damage occurs, causing a reduction in frequency of urination, and also protein and blood in the urine.

EYE

The dust is corrosive to the eyes and is capable of causing burns. Solutions of low-molecular weight organic acids cause pain and injury to the eyes. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

SKIN

The dust may be discomforting to the skin and is capable of causing skin reactions which may lead to dermatitis or may cause burns if exposure is prolonged.

Solution of material in moisture on the skin, or perspiration, may increase irritant effects.

Bare unprotected skin should not be exposed to this material.

The material may accentuate any pre-existing dermatitis condition.

The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

INHALED

The dust may be highly discomforting and may be harmful if inhaled.

CHRONIC HEALTH EFFECTS

Considered toxic by all exposure routes.

Principal routes of exposure are usually by inhalation of generated dust and skin contact with the material.

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.

Clearbore

Not available. Refer to individual constituents.

Unless otherwise specified, data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

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Section 11 - TOXICOLOGICAL INFORMATION...

OXALIC ACID:

TOXICITY

Oral (human) LDLo: 100mg/kg*

Oral (rat) LD50: 7500mg/kg

IRRITATION

Skin (rabbit): 500mg/24 h mild

Eye (rabbit): 0.25mg/24 h - SEVERE

Eye (rabbit): 100mg/4s rinsed - SEVERE

as 5% solution:

Oral (rat) LD50: 375mg/kg* [CCOHS]*

Section 12 - ECOLOGICAL INFORMATION

DO NOT discharge into sewer or waterways.

Section 13 - DISPOSAL CONSIDERATIONS

- Consult manufacturer for recycling options and recycle where possible.
- Consult State Land Waste Management Authority for disposal.
- Incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION

Shipping Name: NONE

Hazard Class: None

UN/NA Number: None

ADR Number:

Packing Group: None

Labels Required:

Additional Shipping Information:

International Transport Regulations:

IMO: None

HAZCHEM

None

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE

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Section 16 - OTHER INFORMATION

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