



SAFETY DATA SHEET

PRODUCT NAME: BORE CLEANER (OXALIC ACID)

Issue Date: September 22

1. IDENTIFICATION

Product Name: Bore Cleaner
Other Names: Ethanedioic Acid, dihydrate; Oxalic Acid, dihydrate
Product Code: ZOALA, KBCLE20, KBCLE10, KBCLE5
Uses: Water treatment
Supplier: HamChem Hamilton Chemicals Ltd, 75 Ruffell Rd, Hamilton
Phone: 07 974 4971 Web: www.hamchem.co.nz Email: info@hamchem.nz

- In emergency dial 111, and then ask for Fire, Ambulance or Police as necessary.
- In case of poisoning phone National Poisons Centre – 0800 764 766

2. HAZARD IDENTIFICATION



GHS Classifications

Acute Toxicity (Oral) – Category 4
Acute Toxicity (Dermal) – Category 4
Skin Corrosion – Category 1C
Serious Eye Damage – Category 1
Specific Target Organ Toxicity (Single Exposure) – Category 3 (Respiratory Irritation)

Signal Word: DANGER

Hazard Statements

H302 – Harmful if swallowed
H312 – Harmful in contact with skin
H314 – Causes severe skin burns and eye damage
H318 – Cause serious eye damage
H335 – May cause respiratory irritation

Precautionary Statements

Prevention

P264 – Wash thoroughly all parts of the body after handling
P270 – Do not eat, drink or smoke when using this product
P280 – Wear protective gloves, protective clothing, eye protection and face protection
P260 – Do not breathe dusts or mists
P271 – Use only outdoors or in a well-ventilated area

Response

P301+P330+P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P310 – Immediately call a Poison Centre/Doctor
P303+P361+P353 – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water (or shower).

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P363 – Wash contaminated clothing before reuse

P304+P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P310 – Immediately call a Poison Centre/Doctor

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing

P310 – Immediately call a POISON CENTRE or Doctor/Physician.

Storage

P405 – Store locked up

P403+P233 – Store in a well-ventilated place. Keep container tightly closed.

Disposal

P501 – Dispose of contents/container in accordance with local/regional/national/international regulations

3. COMPOSITION & INFORMATION ON INGREDIENTS

Chemical Entity	CAS No.	Proportion (%)
Oxalic Acid, Dihydrate	6153-56-6	100%

4. FIRST AID MEASURES

WARNING – Highly poisonous and corrosive to skin and eyes. May be fatal if swallowed or absorbed via skin.

National Poisons Centre – 0800 764 766

Inhalation: Remove victim from exposure to fresh air. If not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Seek medical attention immediately.

Skin Contact: Carefully and gently brush the contaminated body surfaces in order to remove all traces of product for at least 15 minutes. Wash affected area immediately with plenty of water. Remove contaminated clothing. If necessary, seek medical advice.

Eye Contact: Rinse eyes immediately with plenty of water for at least 15 minutes and seek immediate medical attention.

Ingestion: Rinse mouth with water. Give plenty of water to drink provided victim is conscious. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Seek medical attention immediately.

Advice to Doctor: Treat symptomatically based on judgment of Doctor and individual reactions of patient.

Medical Conditions Aggravated by Exposure: No information available on medical conditions aggravated by exposure to this product. Most important symptoms and effects, both acute and delayed; Prolonged or repeated skin contact may cause dermatitis. If inhaled, can cause a burning sensation of the nose and throat, coughing, shortness of breath, and sore throat.

5. FIRE FIGHTING MEASURES

General Measures: Avoid open flame. Avoid contact with oxidizing materials. Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk.

Flammability Conditions: Product is a non-flammable solid.

Extinguishing Media: In case of fire, use water spray, powder, foam or carbon dioxide. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Fire and Explosion Hazard: Product is a non-flammable solid, however reacts violently with strong oxidants causing fire and explosion hazard. Reacts with some silver compounds to form explosive silver oxalate.

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Hazardous Products of Combustion: In case of fire, toxic fumes of carbon monoxide and carbon dioxide may be formed.

Special Fire-Fighting Instructions: Do NOT allow firefighting water to reach waterways, drains or sewers. Store firefighting water for treatment.

Personal Protective Equipment: Firefighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots and gloves).

Flash Point: No data available

Lower Explosion Limit: No data available

Upper Explosion Limit: No data available

Auto Ignition Temperature: No relative self-ignition temperature below 400°C

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure: Ensure adequate ventilation, keep dust levels to a minimum. Keep unprotected persons away. Avoid contact with skin, eyes and clothing – wear suitable protective equipment. Avoid inhalation of dust – ensure that sufficient ventilation or suitable respirator protective equipment is used.

Clean Up Procedures: Collect up dry material into sealed, labelled containers for later disposal according to regulations. Wipe off with water.

Containment: Stop leak if safe to do so. Isolate the danger area.

Decontamination: Wipe off with water.

Environmental Precautionary Measures: Contain the spillage. Keep the material dry if possible. Cover area if possible, to avoid unnecessary dust hazard. Avoid uncontrolled spills to watercourses and drains. Any large spillage into watercourses must be alerted to the Environmental Protection Agency or other regulatory body.

Evacuation Criteria: Evacuate all unnecessary personnel.

Personal Precautionary Measures: Personnel involved in the clean-up should wear full protective clothing as listed in this SDS.

7. HANDLING & STORAGE

Handling: Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Avoid contact with eyes, skin and clothing. Do not inhale product dust/fumes. Wear protective equipment as described in this SDS. Do NOT wear contact lenses when handling this product. Keep dust levels to a minimum. Enclose dust sources, use exhaust ventilation.

Storage: The substance should be stored under dry conditions. Containers should be kept tightly sealed at room temperature. Separate from strong bases, oxidizing materials, food and feed.

Container: Store in original packaging as approved by manufacturer.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

Exposure standards: NZ Workplace Exposure Standards have been set for this substance:
Oxalic Acid WES – TWA = 1 mg/m³; WES – STEL = 2mg/m³

Biological Limits: No information available on biological limits for this product.

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Engineering Measures: A system of local and/or general exhaust is recommended to keep employee exposure as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

Personal protective equipment: RESPIRATOR – Wear a suitable particle filter mask (P2 filter respirator for harmful particles). EYES – Do NOT wear contact lenses. Wear tightly fitting goggles with side shield, or wide vision full goggles. HANDS – Wear suitable gloves (neoprene, nitrile, natural rubber, polyvinyl). CLOTHING – Long-sleeved standard work clothing, long pants and safety footwear (resistant to corrosive chemicals and which prevent penetration of dust).

Special Hazards Precautions: The substance does not represent a thermal hazard; thus, special consideration is not required.

9. PHYSICAL & CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Uncoloured crystals, or white powder
Odour	Odourless
Colour	Uncoloured or white
pH	~0.7 50g/L
Vapour Pressure	0.0312 Pa (@25°C)
Relative Vapour Density	No data available
Boiling Point	Not applicable (sublimes at >160°C)
Melting Point	Not applicable (sublimes at >160°C)
Freezing Point	No data available
Solubility	108 g/L (@25°C)
Specific Gravity	No data available
Flash Point	No data available
Auto Ignition Temperature	No relative self-ignition temperature below 400°C
Evaporation Rate	No data available
Bulk Density	No data available
Corrosion Rate	No data available
Decomposition Temperature	>160°C
Density	0.813 EU A.3 Method
Specific Heat	No data available
Molecular Weight	No data available
Net Propellant Weight	No data available
Octanol Water Coefficient	No data available
Particle Size	No data available
Partition Coefficient	-1.7 (@23°C)
Saturated Vapour Concentration	No data available
Vapour Temperature	No data available
Viscosity	No data available
Volatile Percent	No data available
VOC Volume	No data available
Additional Characteristics	Oxidising properties: No oxidizing properties
Potential for Dust Explosion	No data available
Fast or Intensely Burning Characteristics	No data available
Flame Propagation or Burning Rate of Solid Materials	No data available
Non-Flammables that could contribute unusual Hazards to a Fire	No data available
Properties that may Initiate or Contribute to Fire Intensity	No data available
Reactions that release Gases or Vapours	No data available
Release of Invisible Flammable Vapours or Gases	No data available

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10. STABILITY & REACTIVITY

General Information: On contact with hot surfaces or flames this substance decomposes forming formic acid and carbon monoxide. The solution in water is a medium strong acid.

Chemical Stability: Product is stable under normal conditions of use, storage and temperature.

Conditions to Avoid: Minimise exposure to air and moisture to avoid degradation.

Materials to Avoid: Alkaline solutions, ammonia, halogenates, oxidizing agents, metals, water and heat.

Hazardous Decomposition Products: Hazardous decomposition products may include carbon monoxide, carbon dioxide and formic acid.

Hazardous Polymerisation: Reacts violently with strong oxidants causing fire and explosion hazard. Reacts with some silver compounds to form explosive silver oxalate. Attacks some forms of plastic.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion: Swallowing can result in nausea, vomiting, diarrhea, abdominal pain and chemical burns to the gastrointestinal tract.

Eye contact: A severe eye irritant. Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.

Skin contact: Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.

Inhalation: Material may be an irritant to the mucous membranes of the respiratory tract (airways).

Toxicity data: Oral (rat) LD50: 375mg/kg (female)

Chronic effects: May produce toxic human reproductive or developmental effects on or via lactation. May be harmful to human target organs or systems.

Carcinogen Category: No data available

12. ECOLOGICAL INFORMATION**Eco toxicity:**

Acute/Prolonged Toxicity to Fish: LC50 (96hr) Freshwater Fish: 160mg/L

Acute/Prolonged Toxicity to aquatic invertebrates: EC50 (48hr) for freshwater invertebrates: 162.2 mg/L

Acute/Prolonged Toxicity to aquatic plants: Toxicity threshold (8 days) for freshwater algae: 80.0 mg/L

Chronic Toxicity to Aquatic Organisms: The long-term aquatic toxicity study on aquatic invertebrates shall be considered if the substance is poorly water soluble and oxalic acid is soluble in water. Also, oxalic acid presents a low toxicity for the short-term test.

Toxicity to Soil Dwelling Organisms: The oxalic acid is not supposed to be applied directly to the soil and an indirect exposure to soil via sewage sludge transfer is unlikely since the substance is readily biodegradable. As oxalic acid is considered 'readily biodegradable' it can be assumed that it will be biodegraded within the STP process and as a consequence a transfer to the soil compartment is not expected. Therefore, no tests on terrestrial organisms are provided.

Persistence/Degradability: Oxalic acid is readily biodegradable, meeting the 10-day window. The biodegradation in sea water occurs at the same rate. Also, the anaerobic biodegradation occurs rapidly.

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Mobility: Transport through the medium is rate-limiting. Degradation after 30 days at 20°C is up to 73% (based on CO₂ evolution). Oxalic acid is easily biodegradable in soil.

Environmental Fate: Do NOT let product reach waterways, drains and sewers. Results of PBT and vPvB assessment: The hazard assessment of oxalic acid reveals neither a need to classify the substance as dangerous to the environment, nor is it a PBT or vPvB substance, nor are there any further indications that the substance may be hazardous to the environment.

Bioaccumulation Potential: Not relevant for oxalic acid because this substance is readily biodegradable and highly soluble in water, and logK_{ow} is negative.

Environmental Impact: No data available.

13. DISPOSAL CONSIDERATIONS

General Information: Disposal of oxalic acid should be in accordance with local and national regulations. Processing, use or contamination of this product may change the waste management options. Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Dispose of container and unused contents in accordance with local, regional and national requirements. The used packaging is only meant for packaging this product. After usage, empty the packaging completely.

Special Precautions for Landfill: Contact a specialist disposal company or the local waste regulator for advice. Must not be disposed of together with household garbage. Do NOT allow product to reach sewage system.

14. TRANSPORT INFORMATION

Not classified as a Dangerous Good under NZS 5433:2020 Transport of Dangerous Goods on Land.

15. REGULATORY INFORMATION

HSNO Classifications: 6.1D, 8.2C, 8.3A, 6.1E

EPA Approval # HSR002491

16. OTHER INFORMATION

End of SDS.