MATERIAL SAFETY DATA SHEET

PRODUCT:	**Coolcrete Cobblestone**		
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1. Product Name: Coolcrete Cobblestone

Physical Form:	Clear pale green liquid
Colour:	Green
Odour:	Acrid
Hazards:	Moderate
Hazard Class:	Non hazardous
Intended Use:	Hard surface stain
C.A.S. Chemical Name:	Acid metallic solution
Chemical Family:	Acid metallic solution
Synonyms:	n/a
Empirical Formula:	Blend
Extinguishing Media	No specific recommendation. Use media to suppress surrounding fire.

2. Composition / Information on hazardous ingredients

Ingredients	**Cas No**
Hydrochloric Acid	7647-01-0
Ferrous Sulphate	7720-78-7
Water	7732-18-5

3. Hazard Identification

Routes Of Exposure:	Inhalation; Eye contact; Skin contact; Ingestion
Corrosive:	The severity of damage depends on the duration of the exposure. In general, solutions and mists with a pH of 3 or less are a significant health concern. Contact with alkali liquids will generate heat. Contact with most metals will generate flammable hydrogen gas.
Effects Of Short-Term Exposure:	
Inhalation:	Vapour or mist in the 50 to 100ppm range can cause severe nasal irritation, sore throat, choking, coughing and difficulty breathing. Prolonged exposures can cause burns and ulcers to the nose and throat. Severe exposures for a few minutes at 1000 to 2000ppm can cause a life-threatening accumulation of fluid in the lungs.
Skin Contact:	Contact with liquid can cause irritation and burns. Vapour or mist may cause redness, irritation and burns if contact is prolonged.
Eye Contact:	Low concentrations of vapour or mist (10-35ppm) can be immediately irritating and result in redness. Concentrated vapour mist or splashed liquid can cause severe irritation, burns and premanent blindness.
Ingestion:	Liquid can cause corrosive burns to mouth, throat, oesophagus and stomach. Symptoms may include difficulty in swallowing intense thirst, nausea, vomiting, diarrhoea and in severe cases, collapse and death. Small amounts of acid which enter the lungs during ingestion or vomiting (aspiration) can cause serious lung injury and death.
Effects Of Long-Term Exposure:	Repeated and prolonged exposure to low concentrations of mist or vapour can cause discolouration and damage to tooth enamel, bleeding of the nose and gums, gastrointestinal symptoms, and chronic bronchitis and gastritis. Repeated exposure to low concentrations of liquid, mist or vapour can cause redness, swelling, sensitisation, and pain (dermatitis) Metallic taste and garlic breath are signs of selenium absorption. No evidence of carcinogenicity in human studies. This product does not accumulate in the body.
Medical Conditions Aggravated By Exp:	Pre-existing respiratory and skin disorders.

4. First Aid Measures

Eye Contact:	immediately flush contaminated eye(s) with lukewarm, gently running water for at least 30 minutes while holding the eyelid open. Take care not to rinse contaminated water into a non-affected eye. Neutral saline solution may be used for flushing if available. Do not interrupt flushing - keep emergency vehicle waiting if necessary. If irritation persists, repeat flushing. transport victim to an emergency medical facility.
Skin Contact:	Avoid direct contact. Wear impervious protective gloves if necessary. Immediately flush contaminated areas with lukewarm gently running water for at least 20 minutes. Under running water, remove contaminated clothing, shoes and leather goods such as watchbands and belts. Do not interrupt flushing - have emergency vehicle wait if necessary. Transport victim to emergency medical facility. Decontaminate clothing, shoes, and leather goods before reuse or discarding.
Inhalation:	Take precautions to ensure your own safety before attempting rescue. Wear appropriate personal protective equipment and use the "buddy" system. Remove victim to fresh air. If breathing has stopped, begin artificial respiration, or if the heart has stopped, begin cardiopulmonary resuscitation (CPR) immediately. Oxygen should be administered by trained personnel. Ensure victim is completely at rest - allow no physical exertion. Symptoms may be delayed for up to 48 hours. Immediately transport victim to an emergency medical facility.
Ingestion:	Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or is convulsing. Have victim rinse mouth thoroughly with water. Do not induce vomiting. Have victim drink 300ml of water. If milk is available administer after the water. If vomiting occurs naturally, have the victim lean forward to reduce risk of aspiration repeat administration of water. Immediately transport to emergency medical facility.
General Comments:	Provide general supportive measures (comfort, warmth,rest). Seek medical attention for all exposures except minor instances of inhalation or skin contact. First-aid procedures should be reviewed by appropriate personnel familiar with hydrochloric acid and its conditions of use in the workplace.

5. Fire Fighting Measures:

Flash Point	Not Applicable
Auto-Ignition Temperature:	Not Applicable
Upper Explosion Limit (UEL):	Not Applicable
Lower Explosion Limit (LEL):	Not Applicable
Sensitivity To Impact:	Not Sensitive
Sensitivity To Static Discharge:	Not Sensitive
Hazardous Combustion Products:	None. See hazardous decomposition products in section 10 for information on thermal decomposition.
Extinguishing Media:	No Specific recommendation. Use media to suppress surrounding fire.
Fire Fighting Instructions:	Wear adequate personal protective equipment. Use water to keep fire-exposed containers cool to prevent rupture. Use water spray or fog to reduce or direct vapours. Trained professional may neutralise a spill.
NFPA Hazard Index:	
Health:	3 - Very short exposure could cause serious temporary or residual injury requiring immediate attention.
Flammability:	0 - Will not burn
Reactivity:	1 - Normally stable but can become unstable at elevated temperatures
Specific Hazards	Corrosive

6. Accidental Release Measures

Personal Protection:	Evacuate unnecessary personnel from spill area and keep unprotected persons upwind. Wear appropriate personal protective equipment. Ventilate area. Vapour is heavier than air and will collect in low areas. Do not touch spilled hydrochloric acid.
Environmental Precautions:	Implement spill control plan. Stop or reduce leak if safe to do so. Prevent from entering sanitary or storm sewers, waterways or confined spaces. Use inert materials such as earth or sand to form a dike.
Remedial Measures:	Resrtict access to area until completion of cleanup. Ensure cleanup is conducted by trained personnel only. Use all appropriate personal protective equipment.
Small Spills:	Absorb with neutralising materials such as soda ash or lime and collect in sealed containers. Flush area with water.
Large Spills:	Contain and collect spilled material if possible. Notify government occupational health and safety environmental

authorities as per applicable regulations.

7. Handling and Storage

Storage: Store in cool, dry, well ventilated area, out of direct sunlight and away from heat sources.
Store away from incompatible materials such as oxidising materials, reducing materials and strong bases.
Keep storage area separate from populated work areas.

Handling: Ensure adequate ventilation.
Have emergency equipment readily available.
Keep containers closed when not in use.
Wash face and hands thoroughly after handling and before eating, drinking or using tobacco products.

8. Exposure Controls/Personal Protection

Engineering Controls: Use general or local exhaust ventilation to maintain exposure below the exposure limits.
Respiratory Protection: If respiratory protection is required, NIOSH recommends for hydrogen chloride in air:
Up to 50ppm - chemical cartridge respirator with hydrogen chloride cartridge(s).
Skin Protection: Wear impervious gloves and boots and/or other protective clothing according to circumstances.
Eye And Face Protection: Eye protection is required. Chemical safety goggles are recommended.
The wearing of contact lenses is not recommended.
Footwear: As required by worksite rules.
Other: Have a safety shower and eye wash station readily available in the immediate work area.

9. Physical and Chemical Properties

Appearance: Clear pale green liquid
Colour: Green
State: Liquid
Odour Characteristic: Acrid odour
pH: 2,3-2,5
Vapour Pressure: Not determined
Density: Not determined
Boiling Point: 108°C
Freezing Point: 0°C
Solubility in Water: Completely soluble in water.
S.G.: 1,030-1,035

10. Stability and Reactivity

Chemical Stability: Stable. Avoid heat - releases toxic gases with heat.
Incompatibility: Very corrosive to most metals, producing flammable hydrogen gas.
Reacts with bases to produce heat. Reacts with reducing agents to produce heat, fire and flammable hydrogen gas.
Reacts with oxidising agents to produce heat. Reacts with carbides, turpentine, phosphorus hydrogen sulphide, organic materials, and alkalis. Contact with explosives may cause detonation. Reacts with cyanides to produce toxic cyanide gas, and sulphides to produce toxic hydrogen sulphide gas.
Hazardous Decomposition Product: Thermal decomposition liberates toxic corrosive fumes of hydrogen chloride.
Hazardous Polymerisation: Will not occur.

11. Toxicological Information:

Acute Exposure: The theoretical LD 50 (rat/oral) is >3000mg/kg.
Chronic Exposure: see section 3
Exposure Limits: see section 2
Irritancy: see section 3
Sensitisation: see section 3
Carcinogenicity: no data

12. Ecological Information:

Environmental Toxicity: Moderate toxicity to aquatic life
Biodegradability: Expected to bio accumulate

13. Disposal Considerations:

Place used contaminated material and packaging into suitable containers and dispose of as controlled waste.
Review and follow all local and state regulations.

14. Transport Information:

Non hazardous for transportation.

15. Regulatory Information:

EC Classification: Non hazardous.
National Legislation: Occupational Health & Safety Act, National Road Traffic Act etc.

16. Other Information:

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