

SAFETY DATA SHEET

FABRIKEM® RESTORATION CLEANER TYPE C

SECTION 01 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier	Fabrikem® Heavy Duty Concrete Cleaner
Recommended Use	Concrete Cleaning Compound
Manufacturer's Name	Fabrikem Manufacturing Ltd. 20361 Duncan Way, Langley, BC V3A 7N3
Supplier's Name	Fabrikem Manufacturing Ltd. 20361 Duncan Way, Langley, BC V3A 7N3
Phone Number	604-532-3883 (Monday to Friday; 0800-1600 Pacific Time)
Preparation Date of SDS	21 November 2019
Revision Date of SDS	21 February 2020
SDS Prepared By	WHMIS Team
CANUTEC Emergency Number	613-996-6666 (Transport Emergencies)

SECTION 02 HAZARD IDENTIFICATION

Hazard Classification	ACUTE TOXICITY – INHALATION (DUSTS & MISTS) SKIN CORROSION/IRRITATION SERIOUS EYE DAMAGE/EYE IRRITATION SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) CORROSIVE TO METALS CARCINOGENICITY	Category 2 Category 1A Category 1 Category 3 Category 1 Category 1A
Label Elements		
Symbols		
Signal Word	Danger	
Hazard Statements	H290 May be corrosive to metals. H301 Toxic if swallowed. H314 Causes severe skin burns and eye damage. H330 Fatal if inhaled. H335 May cause respiratory irritation. H350 May cause cancer by inhalation.	
Precautionary Statements	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P234 Keep only in original container. P260 Do not breathe mist, vapours or spray. P262 Do not get in eyes, on skin, or on clothing. P264 Wash face, hands, and any exposed skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves, protective clothing, eye protection, and face protection. P310 Immediately call a POISON CENTER or doctor/physician. P320 Specific treatment is urgent (see first aid treatment section 04 below). P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	

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	<p>P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P310 Immediately call a POISON CENTER or doctor/physician.</p> <p>P390 Absorb spillage to prevent material damage.</p> <p>P363 Wash contaminated clothing before reuse.</p> <p>P405 Store locked up.</p> <p>P403 + P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P501 Dispose of contents/container in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.</p>
Other Hazards	

SECTION 03 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS#	Concentration	Synonyms
Hydrochloric Acid	7647-01-0	10 - 30	Hydrogen Chloride
Glycolic Acid	79-14-1	3 - 7	Hydroxyacetic Acid
Sulphuric Acid	7664-93-9	1 - 5	Sulfuric Acid

SECTION 04 FIRST AID MEASURES

Route of Exposure	
Inhalation	Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur.
Skin Contact	Get immediate medical advice/attention. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Eye Contact	Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing.
Ingestion	Get immediate medical advice/attention. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person.
Self-protection of the First Aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid contact with skin, eyes or clothing.
Most Important Symptoms & Effects	<p>May be fatal if swallowed Corrosive Causes burns to the mouth, throat and stomach. Corrosive to the respiratory passage. Causes vomiting, nausea, and diarrhea.</p> <p>Aspiration of the material into the lungs can cause chemical pneumonitis which can be fatal. Concentrated vapor, mist or splashed liquid can cause severe irritation, burns and permanent blindness. Low concentrations of vapor or mist (10 - 35 ppm) can be immediately irritating and result in redness. Recognition odor in air is 10 ppm. Vapor or mist at 35 ppm cause irritation of the throat, in the 50 to 100 ppm range can cause severe nasal irritation, sore throat, choking, coughing and difficulty breathing.</p> <p>Prolonged exposures can cause burns and ulcers to the nose and throat. Even brief exposures at 1000 to 2000 ppm can cause a life-threatening accumulation of fluid in</p>

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	the lungs called pulmonary edema. Symptoms of pulmonary edema such as shortness of breath may be delayed for 48 hours after exposure. Contact with liquid can cause severe irritation, burns, and permanent scarring or even death. Vapor or mist may cause redness, irritation and burns if contact is prolonged.
Immediate Medical Attention & Special Treatment	Obtain medical assistance.
Note to Physicians	Treatment based on sound judgment of physician and individual reactions of patient.

SECTION 05 FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Foam. Dry powder. Carbon dioxide.
Unsuitable Extinguishing Media	Water reactive. DO NOT use water or water-based extinguishers since it can generate heat and cause spattering if applied directly to sulphuric acid.
Hazardous Combustion Products	When heated to decomposition, emits toxic hydrogen chloride fumes and will react with water or steam to produce heat and toxic and corrosive fumes. Thermal oxidative decomposition produces toxic chlorine fumes and explosive hydrogen gas. Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure build-up which could result in container rupture. Reacts with metals to generate flammable hydrogen gas. Use water spray or fog to reduce or direct vapors.
Special Fire Fighting Procedures	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 06 ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures	Wear appropriate personal protective equipment (impervious gloves, safety glasses, protective clothing, face-shield). Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so.
Environmental Precautions	Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.
Methods and Materials for Containment and Cleaning Up	SMALL SPILLS: Contain and soak up spill with absorbent material which does not react with spilled chemical. Put material in suitable, covered, labeled containers. Neutralize with soda ash (sodium carbonate) or lime over area of spill. Flush area with water. Do not get water inside containers. Contaminated absorbent material may pose the same hazards as the spilled product. LARGE SPILLS: prevent contamination of waterways. Dike and pump into suitable containers. Clean up residual with absorbent material, place in appropriate container and flush with water. Spilled material may cause floors and contact surfaces to become slippery. Neutralize with soda ash (sodium carbonate) or lime over area of spill.

SECTION 07 HANDLING AND STORAGE

Precautions for Safe Handling	Use caution when handling any chemical substance. When diluting an acid, ALWAYS add the acid slowly to water and stir well to avoid spattering. Wash thoroughly after handling. Keep away from water. Do not breathe product
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	vapour or mist. Wear all protective equipment. Do not swallow. Keep the containers closed when not in use. Avoid contact with eyes, skin and clothing. Use only dry, clean utensils in handling. Use with adequate ventilation.
Conditions for Safe Storage	Store in a cool, dry, well-ventilated area, out of direct sunlight and away from heat sources. Keep quantity stored as small as possible. Drums should be vented when received and then at least weekly to relieve internal pressure. Avoid storage with incompatible materials.

SECTION 08 EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters				
Chemical Name	ACGIH TLV		OSHA PEL	
	TWA	STEL	TWA	STEL
Hydrochloric Acid	2 ppm	N/A	7 mg/m ³	N/A
Sulphuric Acid	0.2 mg/m ³	3 mg/m ³	0.1 mg/m ³	3 mg/m ³

Engineering Controls	General	Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements.
	Local Exhaust	Supply sufficient replacement air to make up for air removed by exhaust systems.
	Other	Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.
Personal Protective Equipment	Gloves	Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.
	Respirator	If the exposure limit is exceeded, a full facepiece respirator with an acid gas cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator.
	Eye	Chemical goggles, full-face shield, or a full-face respirator is to be worn at all times when product is handled. Contact lenses should not be worn; they may contribute to severe eye injury.
	Footwear	Impervious footwear of chemically resistant material (rubber or PVC) should be worn at all times.
	Clothing	RECOMMENDED (resistance to breakthrough longer than 8 hours): Butyl rubber, Neoprene rubber, and Nitrile.
	Other	

SECTION 09 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Fuming liquid, slightly yellow to amber
Odour	Pungent odour
Odour Threshold	Not Established
pH	<1
Melting/Freezing Point	-35°C
Initial Boiling Point/Range	100°C
Flash Point	N/A

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Evaporation Rate (n-butyl acetate = 1)	Not Established
Flammability	Non-flammable
Lower Flammable/Explosive Limit	N/A
Upper Flammable/Explosive Limit	N/A
Vapour Pressure	Not Established
Vapour Density (air = 1)	3.4 @ 20°C
Relative Density	1.2 - 1.3
Solubility	Completely miscible
Partition Coefficient (n-octanol/water)	Not Established
Auto-Ignition Temperature	N/A
Decomposition Temperature	Not Established
Viscosity	Not Established

SECTION 10 STABILITY AND REACTIVITY

Reactivity	Contact with hypochlorites liberates chlorine gas. May react violently with incompatible substances. Large amounts of heat can be released when concentrated acid is mixed with water or with organic solvents.
Chemical Stability	Stable, heat and contamination could cause decomposition.
Possibility of Hazardous Reactions	Hazardous polymerization does not occur.
Conditions to Avoid	High temperatures. Incompatibles.
Incompatible Material	Bases (alkalies). Contact with organic materials (such as alcohol, acrylonitrile, chlorates, carbides, epichlorohydrin, fulminates, isoprene, nitrates and picrates) may cause fire and explosions. Contact with metals may produce flammable hydrogen gas. Reducing agents. Will also react with steam or water to produce toxic fumes. Strong oxidizing agents.
Hazardous Decomposition Products	On contact with metals, liberates hydrogen gas. On heating to decomposition, could yield toxic fumes of hydrogen chloride and sulphuric acid.

SECTION 11 TOXICOLOGICAL INFORMATION

Routes of Exposure	Inhalation, Skin, Eyes, Ingestion
Symptoms of Acute Exposure	<p>Skin Corrosion/Irritation Prolonged and repeated exposure to dilute solutions often causes irritation, redness, pain and drying and cracking of the skin. Causes burns, and brownish or yellow stains. Corrosive! Effects on the skin may be delayed and damage may occur without the onset of pain. Concentrated solutions may cause second or third degree burns with severe necrosis and may cause permanent scarring.</p> <p>Ingestion May be fatal if swallowed. Causes burns to the mouth, throat and stomach. Corrosive. Causes vomiting, nausea, and diarrhea. Aspiration of the material into the lungs can cause chemical pneumonitis which can be fatal.</p> <p>Inhalation May be fatal if inhaled. Inhalation of the mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath.</p> <p>Serious Eye Damage/Irritation Corrosive. May cause permanent eye damage. Causes blurred vision. Symptoms include pain, redness and tearing.</p>
Symptoms of Chronic Exposure	Affection/discolouration of the teeth.
Irritancy of Product	Respiratory tract, skin and eye irritant.

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Other Toxicological Information			
Ingredient	LD ₅₀	LC ₅₀	TLV
Hydrochloric Acid	238-277 mg/kg (Rat Oral)	1.68 mg/L (Rat – 1 hr)	2.98 mg/m ³
Sulphuric Acid	2,140 mg/kg (Rat Oral)	85- 103 mg/m ³ (Rat – 1 hr)	0.2 mg/m ³

Carcinogenicity:

Chemical Name	IARC	ACGIH	OSHA
Hydrochloric Acid	Group 3	N/A	N/A
Sulphuric Acid	Group 1	A2	Present

Legend: IARC (International Agency for Research on Cancer) Group 3 – Not classifiable as to carcinogenicity in Humans
 IARC (International Agency for Research on Cancer) Group 1 - Carcinogenic to Humans
 ACGIH (American Conference of Governmental Industrial Hygienists) A2 - Suspected Human Carcinogen

Reproductive Toxicity:	No information available.
Germ Cell Mutagenicity:	No information available.
Interactive Effects:	No information available.

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity				
Chemical Name	Ecotoxicity Freshwater Algae Data	Ecotoxicity Fish Species Data	Toxicity to Microorganisms	Crustacea
Hydrochloric Acid	Not Available	Not Available	Not Available	Not Available
Sulphuric Acid	Not Available	500 mg/L LC50 (Brachydanio rerio) 96 h static	Not Available	Not Available

Persistence & Degradability	No information available.
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Bioaccumulative Material

Chemical Name	Partition Coefficient
Hydrochloric Acid	N/A
Sulphuric Acid	N/A

Other Adverse Effects	No information available.
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SECTION 13 DISPOSAL CONSIDERATIONS

Waste Disposal	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.
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SECTION 14 TRANSPORT INFORMATION

Shipping Name	Proper Shipping Name: UN 1760, CORROSIVE LIQUID N.O.S. (Contains: Hydrochloric Acid and Sulphuric Acid), Class 8, Packing Group II
TDG	UN 1760, CORROSIVE LIQUID N.O.S. (Contains: Hydrochloric Acid and Sulphuric Acid), Class 8, Packing Group II
DOT	UN 1760, CORROSIVE LIQUID N.O.S. (Contains: Hydrochloric Acid and Sulphuric Acid), Class 8, Packing Group II

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SECTION 15 REGULATORY INFORMATION

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

SECTION 16 OTHER INFORMATION

Date of Latest Revision 21 February 2020

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It is provided solely for the customer's consideration, and verification and Fabrikem Manufacturing Ltd. hereby specifically claims it shall not be held liable for any damage resulting from handling or from contact with the above products.

N/A = Not Available

N/E = Not Established