



G.K. Chemical Specialties Co. Inc.
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SAFETY DATA SHEET (SDS)

PRODUCT NAME: G.K. DRAIN OPENER	
HEALTH HAZARD RATING:	(3)- HIGH HAZARD NFPA Rating
FLAMMABILITY HAZARD RATING:	(0)- MINIMAL HAZARD
REACTIVITY HAZARD RATING:	(2)- MODERATE HAZARD
PERSONAL PROTECTION:	H - (Splash goggles, Gloves, Synthetic apron, Vapor respirator)
HAZARD ALERT SIGN:	

SECTION 1 – IDENTIFICATION	
PRODUCT IDENTIFIER	
PRODUCT NAME	G.K. DRAIN OPENER
MANUFACTURER'S NAME AND ADDRESS EMERGENCY PHONE NO.	G.K. Chemical Specialties Co. Inc. 90 Barbados Blvd. Scarborough, Ontario M1J 1K9 (416) 261-7182 / 905 427-7605/ 416-526-4037 CHEMTREC(24 HR EMERGENCY) 1-800-424-9300 International CHEMTREC: 1-703-527-3887
SUPPLIER'S NAME AND ADDRESS EMERGENCY PHONE NO.	
CHEMICAL NAME	SULFURIC ACID
CHEMICAL FAMILY	INORGANIC ACID (Sulfuric Acid)
TRADE NAME AND SYNONYMS	G.K. DRAIN OPENER
MATERIAL USE	INDUSTRIAL, COMMERCIAL AND INSTITUTIONAL

G.K. Chemical Specialties Co. Inc. has compiled the information and recommendations contained in this Safety Data Sheet from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the SDS was prepared. Although reasonable precautions have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration and investigation.

G.K. Chemical Specialties Co. Inc. extends no warranty and assumes no responsibility as to the accuracy of the content or sufficiency of the information and expressly disclaims all liability for reliance thereon. This SDS provides guidelines for the safe handling of this product. It does not and cannot advise on all possible situations, therefore, your specific use of this product should be evaluated to determine if additional precautions are required. Individuals exposed to this product should read and understand this information and be provided pertinent training prior to working with this product.

G.K. Chemical Specialties Co. Inc. assumes no responsibility for personal injury or property damage to vendors, users or third parties caused by the material. Such vendors or users assume all risks associated with the use of the material.

INGREDIENTS. This SDS, under section of Ingredients, contains all ingredients listed under INGREDIENT DISCLOSURE LIST P.C. 1987-2719, 20/1/88 CANADA GAZETTE PART II VOL. 122, No 2 of HAZARDOUS PRODUCT ACT.

Percentage range of concentration of ingredients is expressed as percentage by weight of the total weight of the product. Ingredient List does not necessarily list all ingredients in the formulation and does not necessarily list all ingredient range of concentration, other than ingredients under the Disclosure List.

T.L.V. (units) or Threshold Limit Values refer to the limiting concentrations recommended by the Ministry of Labour. These values were adopted by the American Conference of Governmental Industrial Hygienists (A.C.G.I.H.). The figures refer to time-weighted average concentrations as P.P.M. (V/V) or mg/m³ for a normal working day or at any time for some materials.

"C.A.S REG. No." means the identification number assigned to a chemical substance by the Chemical Abstracts Service Division of the American Chemical Society.

"LC 50" means the concentration of a substance in air that when administered by means of inhalation over a specified length of time in an animal assay, is expected to cause the death of 50 per cent of a defined animal population.

"LD 50" means the single dose of a substance that, when administered by a defined route in an animal assay, is expected to cause death of 50 per cent of a defined animal population.

FLASH POINT. The minimum temperature at which a substance gives off flammable vapors which in contact with spark or flame will ignite.

NIOSH- National institute for occupational safety and health

STEL- Short term exposure limit

TWA- Time-weighted average

PEL- Permissible exposure limit

ACGIH- American conference of governmental industrial hygienist

OSHA- Occupational safety and health act

SECTION 2 – HAZARD IDENTIFICATION



Dangerous Goods: **WHMIS:** Class D. DIV. 2A AND 2B, CLASS E

GHS CLASSIFICATION

Acute Toxicity (inhalation-Dust/Mists) – Category 2
Acute Toxicity (oral, dermal) – Category 1
Eye Damage/ Irritation – Category 1
Skin Corrosion/Irritation – Category 1, Category 1A
Respiratory Sensitization – Category 1A
Specific Target Organ Toxicity (Repeated Exposure) – Category 2
Specific Target Organ Toxicity (single exposure) – Category 3
Toxic to the Aquatic Environment- Acute Hazard – Category 1
Metal Corrosion- Category 1



HAZARDOUS SUBSTANCE (HSNO) CLASSIFICATION

Toxic liquid Class D, DIV 2A AND 2B
Corrosive liquid Class E



GHS Label Elements, including precautionary statements: Hazard Statements:
Signal word- DANGER

HAZARD STATEMENTS

H314: Causes severe skin burns and eye damage, H318: Causes serious eye damage
H335: May cause respiratory irritation, H302: Harmful if swallowed
H331: Toxic if inhaled, H370: Causes damage to organs
H290: May be corrosive to metals

PREVENTION

P261- Avoid breathing dust/fumes/gas/mist/vapors/spray
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection
P405: Store locked up
P403 + P233: Store in a well-ventilated place. Keep containers tightly closed

RESPONSE

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.
P301 + P310: If swallowed: Immediately call a POISON CENTER or doctor/ physician.
P301 + P330 + P331” IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P304 +P340 + P310: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician
P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water. Shower

POTENTIAL HEALTH EFFECTS

INHALATION: May be harmful if inhaled. Causes respiratory tract irritation.
SKIN: Extremely corrosive to all body tissues, causing rapid tissue destruction and serious chemical burns
EYE: Will cause very severe damage
INGESTION: Will be fatal if swallowed

	<p>H400: Very toxic to aquatic life P273: Avoid release to the environment REACTIVITY WITH WATER: Reacts violently with evolution of heat. Spattering occurs when water is added to Sulfuric acid. Always add this product to the water slowly. Never use this product together, before or after with crystal type drain openers it will produce a very violent reaction. Do not use more than 1 / 3 of the 1 liter bottle at one time. It may create too much heat which may break pipes, sinks or the bath tabs. A second or third application can be done after half an hour.</p>
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SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS				
HAZARDOUS INGREDIENTS	APPROXIMATE CONCENTRATION%	C.A.S., N.A. OR U.N. NUMBERS	LD50 {SPECIFY SPECIES & ROUTE}	LC 50 {SPECIFY SPECIES & ROUTE}
Sulfuric acid	93-96	7664-93-9	Oral(Rat): 2140 mg/kg ACGIH TLV= 1 mg/m ³ for NIOSH IDLH= 80 mg/ m ³	Rat, inhalation: 255 mg/m ³ /4 h
Water	balance			

SECTION 4 – FIRST AID MEASURES	
SKIN CONTACT	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention if necessary.
EYE CONTACT	Immediately hold eyelids open and flush with water for at least 15 minutes. Seek medical attention.
INHALATION	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary
INGESTION	Harmful if swallowed. Do not induce vomiting. Drink 1 or 2 glasses of water. Seek immediate medical attention. Never give anything by mouth to an unconscious or convulsing person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.
NOTES TO PHYSICIAN	Product is corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to tissues and danger of perforation. Treat symptomatically

SECTION 5 – FIRE-FIGHTING MEASURES	
FLASH POINT (°C)	Nil
FLASH POINT METHOD	Not applicable
AUTOIGNITION TEMPERATURE (°C)	Non-combustible
UPPER FLAMMABLE LIMIT (% VOL.)	Not applicable
LOWER FLAMMABLE LIMIT (% VOL.)	Not applicable
HAZARDOUS COMBUSTION PRODUCTS	Not applicable
UNUSUAL FIRE/ EXPLOSION HAZARDS	Releases flammable hydrogen gas when reacting with metals

SENSITIVITY TO MECHANICAL IMPACT	No
SENSITIVITY TO STATIC DISCHARGE	No
EXTINGUISHING MEDIA	Use extinguishing agents compatible with acid and appropriate for the burning material. Use water spray to keep fire-exposed containers cool
SPECIAL FIRE FIGHTING PROCEDURES	Fire fighters should wear full protective clothing, including self-contained breathing equipment. The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of POISONOUS GASES of SO ₃ SO ₂ . To neutralize this product dilute first then use dilute Soda ash or slaked lime.

SECTION 6 – ACCIDENTAL RELEASE MEASURES	
LEAK AND SPILL PROCEDURE	Stop leak. Move containers from spill area. Absorb spill with vermiculite absorbent material, neutralize the residue with a dilute solution of Sodium Carbonate, and place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. LARGE SPILL: Corrosive liquid. Stop leak if without risk. Do not touch spilled material. Use water spray curtain to knock down vapor drift. Neutralize the residue. Be careful that vapor is not present at a concentration level above TLV
ENVIRONMENTAL PRECAUTIONARY	Prevent entry into sewers or streams. Any release to the environment should be subject to federal or local reporting requirements.
PERSONAL PRECAUTIONARY MEASURES	Wear protective clothing during cleanup. See section 8 for recommendations on the use of personal protective equipment. Avoid breathing vapors, mist or gas. Avoid contact with clothing and skin

SECTION 7 – HANDLING AND STORAGE	
HANDLING PROCETURES	Avoid contact with eyes. Avoid ingestion. Use good industrial hygiene practices in handling this product. Keep container closed when not in use. Use only with adequate ventilation
STORAGE NEEDS	Keep container tightly closed. Store in a cool area. Keep out of the reach of children. Keep in properly labeled containers.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION	
VENTILATION REQUIREMENTS	Good ventilation is recommended. When TLV (Threshold Limit Value over 8 hours of work) is greater than 1 mg/ m ³ provide exhaust ventilation or other engineering controls to keep the airborne concentration of vapors below their respective. NIOSH IDLH= 80 mg/m ³
PROTECTIVE EQUIPMENT	Ensure that eyewash stations are proximal to the work-station location.
EYE/TYPE	Splash goggles
RESPIRATORY/TYPE	Approved/ certified vapor respirator when airborne concentration exceed exposure limits.
GLOVE/TYPE	Nitrile, Vinyl, Butyl impervious gloves
FOOTWEAR/TYPE	Boots. Chemical resistant and as specified by the workplace
BODY/TYPE	Protective clothing is required. Use impervious clothing (apron, coveralls). The selection of personal protective equipment will vary depending on the conditions of use.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES	
APPEARANCE – PHYSICAL STATE	Colourless oily liquid
ODOUR	Odourless
ODOUR THRESHOLD (PPM)	No information available
PH	<0.1,(strong acid) for 93%., 0.3 for 5% solution
MELTING POINT (°C)	Not pertinent
BOILING POINT (°C)	290- 338°C (554-640°F)
FREEZING POINT (°C)	Not pertinent
EVAPORATION RATE	Not applicable
FLAMMABILITY	Not combustible
FLASH POINT (°C)	Not applicable
AUTO IGNITION TEMPERATURE	Not available
DECOMPOSITION TEMPERATURE	Not available
VAPOUR DENSITY	(air= 1) 3.4 @ 20°C
VAPOUR PRESSURE	@ 20°C < 0.001 mmHg
SOLUBILITY	Completely soluble in water
VISCOSITY	Thin liquid
% VOLATILE BY VOLUME	Not available
SPECIFIC GRAVITY	1.84 ± 0.02 gm / cm ³ @ 20°C

SECTION 10 – STABILITY AND REACTIVITY	
REACTIVITY	Exothermic reaction with incompatible materials. Extremely hazardous in contact with many materials. Spattering occurs when water is added to this product. Dilute Sulfuric acid reacts with most metals, releasing Hydrogen which can form explosive mixture with air in confined spaces.
CHEMICAL STABILITY	Stable under normal conditions
POSSIBILITY OF HAZARDOUS REACTIONS	Arise in contact with incompatible materials. Forms flammable and explosive Hydrogen gas through corrosion of metals.
CONDITIONS TO AVOID	Avoid incompatible materials. Never use this product together or after a crystal or powder type drain opener was used. Most crystal or powder type drain openers contain Sodium Hydroxide (a strong base). This will produce a very violent reaction with a huge splash back.
INCOMPATIBLE MATERIALS	Avoid contact with strong oxidizers, strong bases, metals, metal oxides, amines, carbonates other alkaline materials. Also organics, chlorates, carbides, fulminates.
HAZARDOUS DECOMPOSITION PRODUCTS	Sulfur gases SO ₃ , SO ₂

SECTION 11 –TOXICOLOGICAL INFORMATION	
TOXICITY EFFECTS ON ANIMALS	For Sulfuric acid (7664-93-9): Acute Oral Toxicity (LD50): 2145 mg/kg (Rat). LC50- Inhalation (Rat) :510 mg/m ³ (2h)

TOXIC EFFECTS ON HUMANS	<p>Inhalation: May cause chemical burns to the respiratory tract, leading to sore throat, coughing, shortness of breath and delayed lung edema.</p> <p>Ingestion: May cause circulatory system failure. Causes severe digestive tract burns with abdominal pain, vomiting, and possible death. Will cause corrosion and permanent tissue destruction of the esophagus and digestive tract.</p> <p>Skin contact: May be absorbed through the skin in harmful amount. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. Contact with liquid is corrosive and causes severe burns and ulceration</p> <p>Eye contact: May cause irreversible eye injury. Contact with liquid is corrosive to the eyes and causes severe burns.</p>
CHRONIC EFFECTS ON HUMANS	Prolonged contact with skin may defat tissue causing dermatitis or skin problems.
CARCINOGENICITY	Exposure to strong mists containing Sulfuric acid may cause cancer by inhalation
TERATOGENICITY	No data available
MUTAGENICITY	No evidence
REPRODUCTIVE EFFECTS	Experiments have shown reproductive toxicity effects on laboratory animals.

SECTION 12 – ECOLOGICAL INFORMATION	
ECOTOXICITY DATA	<p>Figures for Sulfuric acid (7664-93-9): Aquatic toxicity. 24.5 ppm/24 hr/ Bluegill/lethal/fresh water. 42.5 ppm/ 48 hr/ Prawn/ LC50/ salt water. Freshwater fish LC50: > 500 mg/L, 96h static (Brachydanio rerio. Water Flea EC50: 29 mg/L/24 h. Because of the low PH of this product, it would be expected to produce significant ecotoxicity upon exposure to organisms and aquatic system. Most aquatic species do not tolerate PH lower than 5.5 for extended period. Dangerous to aquatic life in high conc.</p>
BIODEGRADABILITY	Does not bioaccumulate. Sulfuric acid dissociates in water and lowers the PH of water. It will be neutralized by naturally occurring alkalinity in water and soil. Not biodegradable. Biological Oxygen Demand (BOD): None
PRODUCTS OF DEGRADATION	Gets neutralized by alkalinity present in natural environment.

SECTION 13 – DISPOSAL CONSIDERATIONS	
WASTE DISPOSAL	Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations
INFORMATION ON SAFE HANDLING FOR DISPOSAL INCLUDING ANY CONTAMINATED PACKAGING	Suitable waste facility

SECTION 14 – TRANSPORT INFORMATION	
UN NUMBER	1830
UN PROPER SHIPPING NAME	Sulfuric Acid with more than 51 per cent acid
TRANSPORT HAZARD CLASS	CLASS: 8 (CORROSIVE)
PACKAGING GROUP	II
ENVIRONMENTAL HAZARDS	YES
TRANSPORT IN BULK, if applicable	NOT AVAILABLE
SPECIAL PRECAUTIONS	Emergency response guidebook (ERG): Guide # 137

SECTION 15 – REGULATORY INFORMATION	
SAFETY HEALTH & ENVIRONMENTAL REGULATIONS SPECIFIC TO THE PRODUCT	U.S. TSCA inventory Status: All components of this product are either on the Toxic Substances Control Act (TSCA) INVENTORY List or exempt. Canadian DSL Inventory Status: All components of this product are either on the Domestic Substances List (DSL) or the Non-Domestic Substances List (NDSL) or exempt.

SECTION 16 – OTHER INFORMATION	
PREPARED BY:	Gus Kaklamanos - Chemist
TELEPHONE NO.:	416-261-7182
DATE OF THE LATEST REVISION OF SDS:	October 2, 2017

NOTE: Some of the information provided in this SDS may refer to very large or special usage of the product. The basic purpose of this product is to be used as a drain opener, where quantities stored and used at any time by various users are very small.