

# Twin Pro Industrial Safety Data Sheet

## 1.) PRODUCT AND COMPANY IDENTIFICATION:

<b>Product Identifier</b>	<b>Drain Away</b>
<b>Product Use</b>	Industrial Strength Drain Opener
<b>Initial Supplier Identifier</b>	Twin Industrial Holdings Ltd. O/A Twin Pro Industrial 3203 Giffen Road North Lethbridge, Alberta T1H 0E8 1-403-329-4878
<b>Prepared by:</b>	Twin Pro Industrial
<b>24-Hour Emergency Phone</b>	CANUTEC at 1-613-996-6666

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## 2. HAZARD IDENTIFICATION

### GHS-Classification

Skin Corrosion/Irritation	Category 1A
Serious Eye Damage/Eye Irritation	Category 1
STOT-Single Exposure	Category 3
Carcinogenicity	Category 1A

### Physical Hazards

Corrosive to Metals	Category 1
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### **Danger**

### **Hazard Statements**

H314 - Causes severe skin burns and eye damage  
H335 - May cause respiratory irritation.  
H350 - May cause cancer through exposure to strong-inorganic acid mists.  
H290 - May be corrosive to metals

### **Pictograms**



### **Precautionary Statements**

P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood  
P308 + P313 - If exposed or concerned; Get medical advice/attention  
P403 + P233 - Store in a well ventilated place, keep container tightly closed.  
P234 - Keep only in original container.  
P260 - Do not breathe mist, vapors or spray  
P271 - Use only outdoors or in a well-ventilated area  
P280 - Wear protective gloves, protective clothing, eye protection and face protection  
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  
P363 - Wash contaminated clothing before reuse.  
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P390 - Absorb spillage to prevent material damage  
P405 - Store locked up.  
P-501 - Dispose of contents/container in accordance with all federal, provincial, and /or local regulations including the Canadian Environmental Protection Act.

### 3.) COMPOSITION/INFORMATION ON INGREDIENTS

<b>Chemical Name</b>	<b>CAS Number</b>	<b>Weight %</b>	<b>Unique Identifiers</b>
Sulphuric Acid	7664-93-9	70 – 100%	
Water	7732-18-5	< 30%	

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### 4.) FIRST AID MEASURES

<b>Inhalation:</b>	This chemical is very toxic. Take proper precautions to ensure your own safety before attempting rescue. Remove source of contamination or move victim to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen. DO NOT allow victim to move about unnecessarily. Symptoms of pulmonary edema can be delayed up to 48 hours after exposure. Seek immediate medical attention.
<b>Skin Contact / Absorption:</b>	This chemical is very toxic. Take proper precautions to ensure your own safety before attempting rescue. Remove source of contamination or move victim to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen. DO NOT allow victim to move about unnecessarily. Symptoms of pulmonary edema can be delayed up to 48 hours after exposure. Seek immediate medical attention.
<b>Eye Contact:</b>	Contact lenses should never be worn when working with this product. Avoid direct contact. Wear chemical protective gloves, if necessary. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open. If a contact lens is present, remove only if easy to do so. Neutral saline solutions may be used as soon as it is available. Seek immediate medical attention.
<b>Ingestion:</b>	NEVER give anything by mouth if victim is rapidly losing consciousness, is unconscious or convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Have victim rinse mouth with water again. Seek immediate medical attention.
<b>Additional Information:</b>	Note: Occupational exposure to strong inorganic mists containing sulfuric acid is carcinogenic for humans.

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### 5.) FIRE FIGHTING MEASURES

<b>Suitable Extinguishing Media:</b>	Use extinguishing media appropriate for surrounding fire. Use water only to keep non-leaking, fire-exposed containers cool.
<b>Unsuitable Extinguishing Media:</b>	WATER REACTIVE. DO NOT use water or water-based extinguishers since it can generate heat and cause splattering if applied directly to sulphuric acid.
<b>Specific Hazards Arising From the Chemical</b>	During a fire, irritation/toxic sulfur oxides may be generated. Fire may result due to the heat generated by contact of concentrated sulphuric acid with combustible materials. Sulphuric acid reacts with most metals, especially when diluted with water. This reaction produces highly flammable hydrogen gas, which may explode if ignited, particularly in confined spaces. Sulphuric acid is a strong dehydrating agent, which may cause ignition of finely divided materials on contact. Containers may explode in the heat of a fire.
<b>Special Protective Equipment And precautions for Fire Fighters</b>	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.
<b>Further Information</b>	Not Available

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### 6.) ACCIDENTAL RELEASE MEASURES

**Personal Precautions/  
Protective Equipment/  
Emergency Procedures**      Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE.  
Stop or reduce leak if safe to do so.  
Flush with water to remove any residue.

**Environmental precautions:**      Prevent material from entering sewers or waterways

**Methods and Materials for  
Containment and Cleaning up**      **Small Spills:** Soak up spill with absorbent material which does not react with spilled chemical. Put material in suitable, covered, labeled containers. Flush Area with water.  
**Large Spills:** Contact fire and emergency services and supplier for assistance and advice. Contain spill with dry sand, clay, diatomaceous earth, absorbent material which does not react with spilled material. Cautiously dilute and neutralize with lime or soda ash. Remove liquid by corrosion-resistant pumps or vacuum equipment. Contaminated absorbent material may pose the same hazards as the spilled product.

**7.) HANDLING AND STORAGE**

**Precautions for safe Handling:**      This material is a CORROSIVE and TOXIC liquid. Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.

**Conditions for Safe Storage:**      Store in a cool, dry, well ventilated place. Keep container tightly closed and away from incompatible materials. Metal and, specifically carbon steel storage tanks must be vented due to hydrogen release.

**8.) EXPOSURE CONTROLS/PERSONAL PROTECTION**

Exposure Limit(s)	Regulation	Type of Listing	Value
Component Sulphuric acid	ACGIH	TLV-TWA	0.2mg/m <sup>3</sup>
	OSHA	TLV-TWA	1mg/m <sup>3</sup>

**Engineering Control(s)**

**Ventilation Requirements**      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. 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.

**Protective Equipment**

**Eyes/Face**      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.

**Hand Protection**      Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.

**Skin and Body Protection**      Body suite, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.  
Impervious boots of chemically resistant material should be worn at all times. No special footwear is required other than what is mandated at place of work.

**Respiratory Protection**

**NIOSH/OSHA RECOMMENDATIONS FOR SULPHURIC ACID CONCENTRATES IN AIR.**

UP TO 15mg/m<sup>3</sup>:  
(APF = 25) SAR operated in a continuous-flow mode; or powered air-purifying respirator with acid gas cartridge(s) in combination with an N100, R100, or P100 filter.  
(APF = 50) Full-face piece chemical cartridge respirator with acid gas cartridge(s) in combination with an N100, R100, or P100 filter or gas mask with acid gas canister and an N100, R100 or P100 filter or full-face piece SCBA; or full-face piece SAR.

Emergency or planned entry into unknown concentrations or IDLH conditions:

(APF = 10,000) Any self-contained breathing apparatus that has a full face piece and is operated in a pressure-demand or other positive-pressure mode.

(APF = 10,000) Any supplied-air respirator that has a full face piece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus

Escape:

(APR = 50) Any air-purifying, full-face piece respirator (gas mask) with a chin-style front – or back-mounted acid gas canister having an N100, R100, or P100 Filter.

**Thermal Hazards** Not Available.

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## **9.) PHYSICAL AND CHEMICAL PROPERTIES**

### **Appearance**

<b>Physical State</b>	Liquid
<b>Color</b>	Clear to slightly amber oily liquid
<b>Odor</b>	No odor
<b>Odor Threshold</b>	Not Available

### **Property**

<b>pH</b>	<1.0
<b>Melting Point/Freezing Point</b>	-32°C – 10.5°C
<b>Initial Boiling Point and Boiling Range</b>	279°C - 290°C
<b>Flash Point</b>	Not Applicable
<b>Evaporation Rate</b>	Probably very low
<b>Flammability</b>	Non-Flammable
<b>Upper Flammable Limit</b>	Not Applicable
<b>Lower Flammable Limit</b>	Not Applicable
<b>Vapor Pressure (mm Hg, 20°C)</b>	Extremely low
<b>Vapor Density (Air=1)</b>	3.38
<b>Relative Density</b>	Not Available
<b>Solubility (ies)</b>	Soluble in water, with generation of much heat. Decomposes in ethanol
<b>Partition Coefficient: n-octanol/water</b>	Not Applicable (ionizable compound)
<b>Auto-ignition Temperature</b>	Not Applicable
<b>Decomposition Temperature</b>	340°C
<b>Viscosity</b>	21mPa @ 25°C
<b>Explosive Properties</b>	Reacts violently with water with the evolution of heat. It can react explosively with organic materials. Reacts with many metals to liberate hydrogen gas that can form explosive mixtures. Hydrogen, a highly flammable gas, can accumulate to explosive concentrations inside drums, types of steel containers or tanks upon storage. Oxides of sulphur may be produced in fire.
<b>Specific Gravity (water=1)</b>	1.82 – 1.84
<b>% Volatiles by Volume</b>	Not Available
<b>Formula</b>	H <sub>2</sub> SO <sub>4</sub>
<b>Molecular Weight</b>	98.08

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## **10.) STABILITY AND REACTIVITY**

**Reactivity** Not Available

<b>Stability:</b>	Stable under normal conditions
<b>Possibility of Hazardous Reactions</b>	Although concentrated sulphuric acid is referred to as an oxidizing agent in some sources, it is not a very strong oxidizing agent. The 98% acid has some oxidizing ability when hot. Sulphuric acid does not polymerize and does not form peroxides.
<b>Conditions to Avoid</b>	Contact with hot water
<b>Incompatible Materials:</b>	Highly reactive with material such as metals, metal oxides, hydroxides, nitrates, amines, carbonates, and other alkaline materials
<b>Hazardous decomposition Products</b>	Decomposes at 340°C into sulfur trioxide and water.

## **11. TOXICOLOGICAL PROPERTIES**

<b>Acute Toxicity</b>			
<b>Component</b>	<b>Oral LD<sub>50</sub></b>	<b>Dermal LD<sub>50</sub></b>	<b>Inhalation LC<sub>50</sub></b>
Sulphuric Acid	2140 mg/kg (rat)	Not Available	160mg/m <sup>3</sup> (mouse,4hr)
<b>Chronic Toxicity – Carcinogenicity</b>		<b>IARC</b>	
<b>Component</b>		IARC category 1 (only mists containing sulphuric acid and not to sulphuric acid or sulphuric acid solutions)	
Sulphuric Acid			
<b>Skin Corrosion/Irritation</b>	Corrosive. Capable of producing severe burns, blisters, ulcers and permanent scarring.		
<b>Ingestion</b>	Can cause burns to the lips, tongue, throat, esophagus and stomach if ingested. Symptoms may include difficulty swallowing, intense thirst, nausea, vomiting, diarrhea, and in severe cases, collapse and death.		
<b>Inhalation</b>	Mist and vapours are corrosive and can cause severe irritation and damage to mouth, nose, lungs and throat.		
<b>Serious Eye Damage/Irritation</b>	Corrosive. Capable of producing severe eye burns and permanent injury, including blindness.		
<b>Respiratory or skin Sensitization</b>	Not known to be a skin sensitizer		
<b>Germ Cell Mutagenicity</b>	Not known to be mutagenic		
<b>Reproductive Toxicity</b>	Not known to cause reproductive toxicity.		
<b>STOT-Single Exposure</b>	May cause respiratory irritation.		
<b>STOT-Repeat Exposure</b>	Not Available		
<b>Aspiration Hazard</b>	Not Available		
<b>Synergistic Materials</b>	There are conflicting results from studies in animals on the interactive effects between ozone and sulfuric acid when they are inhaled concurrently. While some have shown a synergistic effect others have shown no effect or an antagonistic effect.		

## 12.) ECOLOGICAL INFORMATION

<b>Ecotoxicity Component</b>	<b>Toxicity to Algae</b>	<b>Toxicity to Fish</b>	<b>Toxicity to Daphnia and Other aquatic Invertebrates</b>
Sulphuric Acid	Not Available	LC <sub>50</sub> (Lepomis macrochirus, 48hr): 49mg/L LC <sub>50</sub> (Gambusia affinis, 96hr): 42mg/l	EC <sub>50</sub> (Daphnia magna, 24 hr): 29mg/L
<b>Biodegradability:</b>	The products of biodegradation are more toxic than the original product.		
<b>Bioaccumulation</b>	Has a low potential for bioaccumulation.		
<b>Mobility</b>	When released in soil, this material may leach into groundwater. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet deposition. When released into the air, this material may be removed from the atmosphere to a moderate extent by dry deposition.		
<b>Other adverse Effects</b>	Not Available		

## 13.) DISPOSAL CONSIDERATIONS

<b>Waste From Residues/ Unused Products</b>	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.
<b>Contaminated Packaging</b>	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

## 14.) TRANSPORT INFORMATION

<b>UN Number</b>	1830
<b>UN Proper Shipping Name</b>	SULPHURIC ACID
<b>Transport Hazard Class (es)</b>	8
<b>Packaging Group</b>	II
<b>Environmental Hazards</b>	Not listed as a marine pollutant under Canadian TDG Regulations Schedule III
<b>Special Precautions</b>	Not Available
<b>Transport in Bulk</b>	Not Available
<b>Additional Information</b>	Packing Group II                      Limited Quantity Index 1L

### TDG

**Other:** Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.

TDG Product Classification: This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the transportation of dangerous goods regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the reference at section 16 of this MSDS / SDS

## 15.) REGULATORY INFORMATION

This product listed on this Safety Data Sheet has been classified in accordance with the hazard criteria of the controlled products Regulations. This Safety Data Sheet contains all information required by those regulations.

## **16.) OTHER INFORMATION**

Preparation Date            March 22, 2017  
Revised Date                March 22, 2017

**USE THIS NUMBER IN CASE OF DANGEROUS GOODS EMERGENCY:  
CANUTEC 1 (613) 996-6666**

**Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.**

**Attention: Receiver of the chemical goods / SDS coordinator**

Twin Industrial Holdings Ltd. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users.