Twin Pro Industrial
Safety Data Sheet

1.) PRODUCT AND COMPANY IDENTIFICATION:

Product Name:	**TWP304 Scale Rid**
Other Means of Identification:	Scale Rid
Recommended Use:	De-Scaling
Initial Supplier Identifier:	Twin Industrial Holdings Ltd. 3203 Giffen Road North Lethbridge, AB T1H 0E8 403-329-4878
Emergency Phone	CANUTEC at 1-613-996-6666

2.) HAZARDS IDENTIFICATION

GHS-Classification

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

Physical Hazards

Corrosive to Metals	Category 1

Danger

Hazard Statements
H290 - May be corrosive to metals
H314 - Causes severe skin burns and eye damage
H335 - May cause respiratory irritation

Pictograms

Precautionary Statements
P234 - Keep only in original container
P260 - Do not breathe mist, vapors or spray
P264 - Wash hands thoroughly after handling
P280 - Wear protective gloves, protective, eye protection and face protection
P271 - Use only outdoors or in a well-ventilated area
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.
P363 – Wash contaminated clothing before reuse.
P304 + P340 – IF INHALED: Remove victim 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 so. Continue rinsing.
P310 - Immediately call a POISON CENTER or doctor/physician
P390 - Absorb spillage to prevent material damage
P405 – Store locked up
P403 + P233 – Store in a well-ventilated place. Keep container tightly closed.
P406 – Store in a corrosion resistant container with a resistant inner liner
P501 – Dispose of contents/container in accordance will all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

3.) COMPOSITION/INFMORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight %	Unique Identifiers
Hydrochloric Acid (35%)	7647-01-0	10 – 30%	Not Available

Balance of ingredients are considered non hazardous and constitute a proprietary blend.

4.) FIRST AID MEASURES

Inhalation: Remove victim to fresh air. Only give artificial respiration if breathing has stopped. If breathing is difficult, give oxygen. Seek medical attention.

Skin Contact/ Absorption: Remove contaminated clothing. Wash affected area with lukewarm water for at least 30 minutes. If irritation persists, repeat flushing. Seek immediate medical attention. Double bag, seal, label and leave contaminated clothing, shoes and leather goods at the scene for safe disposal.

Eye Contact: 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 solution may be used as soon as it is available. Seek immediate medical attention.

Ingestion: 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 rinse mouth with water again. Seek immediate medical attention.

Additional Information: Provide general supportive measures (comfort, warmth, rest). Take proper precautions to ensure your own safety before assisting others.

5.) FIRE – FIGHTING MEASURES

Suitable Extinguishing Media: Extinguish fire using agent suitable for surrounding fire. Cool all affected containers with flooding quantities of water. Apply water from as far a distance as possible. Use water spray to knock-down vapors

Unsuitable Extinguishing Media Not Available

Specific Hazards Arising From The chemical When heated or in a fire, toxic and corrosive hydrogen chloride gas may be released.

Special Protective Equipment And Precautions for Fire-Fighters Wear NIOSH-approved self contained breathing apparatus and protective gear.

Further Information: Not Available

6.) ACCIDENTAL RELEASE MEASURES

Personal Precautions / Protective Equipment / Emergency Procedures Wear appropriate protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so.

Environmental precautions Prevent from entering sewers, waterways or low areas.

Methods and Materials For Containment and Cleaning Up Small Spills: Contain and soap up spill with absorbent material which does not react with spilled chemical. Put material in suitable, covered, labeled containers. Flush area with water. Do not get water inside containers.

7.) HANDLING AND STORAGE

Precautions for Safe Handling 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 area. Keep out of reach of children

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8.) EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Hydrochloric Acid (35%)	ACGIH	TLV-C	2ppm
	OSHA	PEL-T-C	5ppm (7mg/m^3)

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 Wear eye/face protection. Contact lenses should not be worn; they may contribute to severe eye injury.

Hand Protection Wear protective gloves

Skin and Body Protection Wear protective clothing and gloves. No special footwear required.

Respiratory Protection If exposure exceeds occupational exposure limits, use an appropriate NIOSH approved respirator.

Thermal Hazards Not Available

9.) PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State	Liquid
Color	Colorless to slightly yellow
Odor	Pungent odor
Odor Threshold	Detectable at 1-5ppm

Property

pH	<1.5
Melting Point/Freezing Point	Not available
Initial Boiling Point /boiling range	Not Available
Flash Point	Not Applicable
Evaporation Rate	Not Available
Flammability	Non-Flammable
Upper Flammable Limit	Not Applicable
Lower Flammable Limit	Not Applicable
Vapor Pressure(mm Hg, 20°C)	Not Available
Vapor Density (Air=1)	Not Available
Relative Density (specific gravity)	1.109
Solubility(ies)	Completely miscible
Partition Coefficient: n-octanol/water	Not Available
Auto-ignition Temperature	Not Applicable
Decomposition Temperature	Not Available
Viscosity	Not Available

10.) STABILITY AND REACTIVITY

Reactivity	This material is considered to be non-reactive under normal use conditions
Stability:	Stable
Possibility of Hazardous Reactions	Reacts with metals
Conditions to avoid	Not applicable
Incompatible Materials	Oxidizers / Bases
Hazardous Decomposition Products	Not Available

11.) TOXICOLOGICAL PROPERTIES

Acute Toxicity

Component	Oral LD_{50}	Dermal LD_{50}	Inhalation LC_{50}
Hydrochloric Acid (35%)	2,121 mg/kg (rat)	4390 mg/kg (mouse)	1106 ppm (guinea pig, 4 hr)

Chronic Toxicity – Carcinogenicity

Component	IARC
Hydrochloric Acid	Not Classifiable as a human carcinogen.

Skin Corrosion/Irritation	Corrosive. Contact may produce severe irritation or corrosive skin damage, depending upon length of contact and amount of acid.
Ingestion	May be harmful if swallowed
Inhalation	May cause respiratory tract irritation
Serious Eye Damage/Irritation	Low concentrations of vapor or mist can be irritating, causing redness. Concentrated vapor, mist or splashed liquid can cause severe irritation and damage, burns and permanent blindness.
Respiratory or skin Sensitization	Hydrochloric acid is not considered an occupational respiratory or skin sensitizer.
Germ Cell Mutagenicity	Not available
Reproductive Toxicity	The limited evidence available does not indicate that hydrochloric acid is a development toxin
STOT-Single Exposure	Hydrochloric acid solutions release hydrogen chloride, a corrosive gas. Causes respiratory irritation.
STOT-Repeated Exposure	Not available
Aspiration Hazard	Not available
Synergistic Materials	Not Available.

12.) ECOLOGICAL INFORMATION

Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Hydrochloric Acid	EC_{50}(Green Algae, 72 hr): 0.0492 mg/L	LC_{50}(Cyprinus carpio, 96Hr): 4.92 mg/L	LC_{50}(Shrimp, 48hr): 100-300 ppm

Biodegradability	Not Applicable – hydrochloric acid disassociates in water.
Bioaccumulation	Hydrogen chloride does not accumulate in the food chain.
Mobility	Hydrogen Chloride dissociates into chloride and hydronium ions in moist soil.
Other Adverse Effects	Not available

13.) DISPOSAL CONSIDERATIONS

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

14.) TRANSPORT INFORMATION

UN	1789
UN Proper Shipping Name	HYDROCHLORIC ACID
Transport Hazard Class(es)	8
Packing Group	II
Environmental Hazards	Not listed as a marine pollutant under Canadian TDG Regulations Schedule 1, Column 10.
Special Precautions	Not Available
Transport in Bulk	Not Available
TDG	
Other	Secure containers (full and/or empty) with suitable hold down devises during shipment and ensure all caps, valves, or closures are secured in the closed position.

15.) REGULATORY INFORMATION

NOTE: The product listed on this SDS has been classified in accordance with the hazard criteria of the controlled products Regulations. This SDS contains all the information required by those regulations.

16.) OTHER INFORMATION

Preparation Date	April 11, 2017
Revised Date	April 11/17

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.