

# Twin Pro Industrial Safety Data Sheet

## 1.) IDENTIFICATION:

**Product Name:** Acidifier II  
**Other Means of Identification:** Twin Pro Industrial  
**Product Use and restrictions on use:** Lower pH  
**Initial Supplier Identifier:** Twin Industrial Holdings Ltd.  
O/A Twin Pro Industrial  
3203 Giffen Road North  
Lethbridge, AB  
T1H 0E8  
403-329-4878

**Prepared by** Twin Pro Industrial  
**Emergency Phone** CANUTEC at 1-613-996-6666

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## 2.) HAZARDS IDENTIFICATION

### GHS-Classification

Serious Eye Damage/Eye Irritation Category 2A  
Skin Corrosion/Irritation Category 2

### **Physical Hazards**

Corrosive to metals Category 1

### **WARNING**

#### **Hazard Statements**

H290 – May be corrosive to metals  
H303 – May be harmful if swallowed  
H315 – Causes skin irritation  
H319 – Causes Serious eye irritation  
H335 – May cause respiratory irritation

#### **Pictograms**



#### **Precautionary Statements**

P234 – Keep only in original container  
P264 – Wash hands thoroughly after handling  
P280 – wear protective gloves, protective clothing, eye protection, and face protection  
P261 – Avoid Breathing fume, gas, mist, vapors or spray  
P271 – Use only outdoors or in a well-ventilated area  
P390 – Absorb spillage to prevent material damage  
P312 – Call a poison Center/doctor if you feel unwell  
P302 + P352 – IF ON SKIN: Wash with plenty of soap and water  
P332 + P313 – If skin irritation occurs; Get medical advice/attention  
P362 + P364 – Take off contaminated clothing and wash before reuse.  
P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 – If eye irritation persists: get medical advice/attention  
P304 + P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P403 + P233 – Store in a well-ventilated place. Keep container tightly closed.  
P405 – Store locked up  
P501 – Dispose of contents/container in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection act.

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### 3.) COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Weight %</u>	<u>Unique Identifiers</u>
Citric Acid	77-92-9	20% - 35%	Not Available

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### 4.) FIRST AID MEASURES

<b>Inhalation:</b>	Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek immediate medical attention if you feel unwell.
<b>Skin Contact:</b>	Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists. Completely decontaminate clothing, shoes and leather goods before reuse or discard.
<b>Eye Contact:</b>	Contact lenses should never be worn when working with this product. Flush immediately with water for at least 30 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. If a contact lens is present, remove only if easy to do so. Seek immediate medical attention.
<b>Ingestion:</b>	Seek medical attention. Do not give anything by mouth if individual is drowsy or unconscious, place individual on left side with head down. Consult with a physician or poison control center whether to induce vomiting. Do not leave individual unattended.

**Additional Information:** Not Available

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### 5.) FIRE – FIGHTING MEASURES

<b>Suitable Extinguishing Media:</b>	Use appropriate extinguishing media for surrounding fire.
<b>Unsuitable Extinguishing Media:</b>	Not Available
<b>Specific Hazards Arising From The Chemical:</b>	May evolve oxides of carbon (CO, CO <sub>2</sub> ) under fire conditions
<b>Special Protective Equipment 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

<b>Personal Precautions/ Protective Equipment/ Emergency Procedures:</b>	Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Prevent material from entering sewers. Flush with water to remove any residue.
<b>Environmental precautions:</b>	Prevent from entering sewers, waterways or low areas.
<b>Methods and Material for Containment and Cleaning up:</b>	Addition of sodium bicarbonate or lime (soda ash) will neutralize Citric Acid and precipitate calcium citrate. Test area of spill with pH paper to assure neutralization. Thoroughly wash the area after a spill clean-up with large quantities of water, flush to drain.

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### 7.) HANDLING AND STORAGE

<b>Precautions for Safe Handling:</b>	Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure. Inspect containers for damage or leaks before handling.
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**Conditions for Safe Storage:** Keep in a tightly closed container, store in a cool, dry, well ventilated area. Do not store above 49°C. Protect against physical damage.

Incompatibilities: Strong oxidizing agents and reducing agents, strong bases, and metal nitrates.

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

**Exposure Limit(s)**  
Not Available

### **Engineering Control(s)**

**Ventilation 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 regulation and be in close proximity.

### **Protective Equipment**

**Eyes/Face** Chemical goggles. A face shield may also be necessary. Contact lenses should not be worn; they may contribute to severe eye injury.

**Hand Protection** Impervious gloves of chemical 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.

**Respiratory Protection** Use NIOSH/MSHA approved respiratory protection as required by workplace

**Thermal Hazards** Not Available

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

### **Appearance**

<b>Physical State</b>	Liquid
<b>Color</b>	Colorless
<b>Odor</b>	Mild odor
<b>Odor Threshold</b>	Not Available

### **Property**

<b>pH</b>	<1
<b>Melting Point/Freezing Point</b>	Not Available
<b>Flash Point</b>	Not Applicable
<b>Evaporation Rate</b>	Not Available
<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>	Not Available
<b>Vapor Density (Air=1)</b>	Not Available
<b>Relative Density</b>	Not Available
<b>Solubility(ies)</b>	Complete
<b>Partition Coefficient: n-octanol/water</b>	Not Available
<b>Auto-ignition Temperature</b>	Not Available
<b>Decomposition Temperature</b>	Not Available
<b>Viscosity</b>	Not Available

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## 10.) STABILITY AND REACTIVITY

<b>Reactivity</b>	Not Available
<b>Stability</b>	Stable under normal conditions
<b>Possibility of Hazardous Reactions</b>	Not Available
<b>Conditions to Avoid</b>	Not Available
<b>Incompatible Materials</b>	Metal nitrates, alkali carbonates and bicarbonates, Potassium tartrate. May corrode copper, zinc, aluminum and their alloys.
<b>Hazardous Decomposition Products</b>	Carbon dioxide and carbon monoxide may form when heated to decomposition.

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## 11.) TOXICOLOGICAL PROPERTIES

### Acute Toxicity

<b>Component</b>	<b>Oral LD<sub>50</sub></b>	<b>Dermal LD<sub>50</sub></b>	<b>LC<sub>50</sub></b>
Citric Acid (50%)	6000 mg/kg (rat)	Not Available	Not Available

### Chronic Toxicity – Carcinogenicity

<b>Component</b>	<b>IARC</b>
Citric Acid	Citric Acid is not known to be carcinogenic

<b>Skin Corrosion/Irritation</b>	Corrosive, Capable of producing severe burns, blister, ulcers and permanent scarring.
<b>Ingestion</b>	Ingesting small amounts not likely to cause harmful effects. Ingesting large amounts may however, be harmful.
<b>Inhalation</b>	Breathing of vapor or mist is possible, may cause irritation.
<b>Serious Eye Damage/Irritation</b>	Concentrated solutions may be corrosive to the eyes and cause corneal ulcerations.
<b>Germ Cell Mutagenicity</b>	Not Available
<b>Reproductive Toxicity:</b>	Not Available
<b>STOT – Single Exposure</b>	May cause respiratory irritation
<b>STOT - Repeated Exposure</b>	Chronic, high concentration overexposure to Citric Acid can result in a reduction of plasma calcium concentration, which can lead to cardiac arrhythmias, reduced cardiac output and, in severe cases, death
<b>Aspiration Hazard</b>	Not Available
<b>Synergistic Materials:</b>	Not available

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## 12.) ECOLOGICAL INFORMATION

### Exotoxicity

<b>Component</b>	<b>Toxicity to Algae</b>	<b>Toxicity to Fish</b>	<b>Toxicity to Daphnia and Other Aquatic Invertebrates</b>
Citric Acid	EC <sub>50</sub> (Scenedesmus Quadricauda, 7d): 640 mg/L	LC <sub>50</sub> (Leuciscus idus melanotus, 96hr): 440 – 760 mg/L	LC <sub>50</sub> (Carcinus maenas, 48hr): 160mg/L EC <sub>50</sub> (Daphnia magna, 24 hr): 1535 mg/L

<b>Biodegradability</b>	Readily biodegradable
<b>Bioaccumulation</b>	Does not bioaccumulate
<b>Mobility</b>	Do to its physic-chemical characteristics citric acid is highly mobile in the environment and will partition to the aquatic compartment.
<b>Other information:</b>	Not Available

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## 13.) DISPOSAL CONSIDERATIONS

<b>Waste from Residues/ Unused Product:</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.

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#### **14.) TRANSPORT INFORMATION**

<b>UN:</b>	UN3265
<b>UN Proper Shipping Name</b>	Corrosive Liquid, Acidic, Organic, N.O.S. (citric acid)
<b>Transport Hazard Class(es)</b>	8
<b>Packing Group:</b>	III
<b>Environmental Hazards</b>	Not listed as a marine pollutant under Canadian TDG Regulations
<b>Special Precautions</b>	Not Available
<b>Transport in Bulk</b>	Not Available

**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.

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#### **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.

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#### **16.) OTHER INFORMATION**

Preparation Date: April 4, 2017  
Revised Date: April 4, 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.

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