

SAFETY DATA SHEET

Hawco Products Ltd. H780 Aluminum Cleaner # 2

1. IDENTIFICATION OF THE SUBSTANCE OR PREPARATION AND OF THE COMPANY

Identification of Preparation: H780 Aluminium Cleaner # 2

Date of Safety Data Sheet: December 30, 2017

Use of Preparation: Aluminium Cleaner.

Company Identification: Hawco Products Ltd.
61 Shaver Street, PO Box 1507
Brant ford, Ontario N3T 5V6

Company Emergency Telephone Number Emergency Phone: 519-759-2443

2. HAZARD IDENTIFICATION

Emergency Overview:

OSHA / WHMIS 2015 Hazards

Classification of substance or mixture

GHS-US/Canadian classification:

GHS Hazards

Acute Toxicity (Oral) Category 2 H300

Acute Toxicity (Dermal) Category 2 H310

Skin Corrosive Category 1A H314

Eye Damage Category 1 H318

Acute Toxicity (Inhalation) Category 2 H330

Label Elements

GHS-US/ Canada Labeling

Hazard Pictograms (GHS):



Signal Word (GHS): Danger

Hazard Statements (GHS):

H300: Fatal if swallowed.

H310: Fatal in contact with skin.

H314: Causes severe skin burns and eye damage

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H318: Causes serious eye damage

H330: Fatal if inhaled.

Precautionary Statements (GHS):

P260: Do not breathe mist, spray, and vapours.

P262: Do not get in eyes, on skin, or on clothing.

P264: Wash exposed skin thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear face protection, protective clothing, protective gloves, and eye protection.

P284: In case of inadequate ventilation, wear respiratory protection.

Response Statements (GHS):

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P310: Immediately call a POISON CENTRE or doctor/physician.

P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340: IF INHALED: Remove person to fresh air and keep 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. Get medical attention.

P363: Wash contaminated clothing before reuse.

P405: Store locked up.

P501: Dispose of contents / container in accordance with local regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Description: Chemical Blend

Ingredient	CAS#	% by Wt	Classification
ortho-Phosphoric Acid	7664-38-2	5-10	Skin Corrosion/Irritation Category 1B – H314 Serious Eye Damage/Irritation Category 1 – H318
Sulphuric Acid	7664-93-9	10-30	Skin Corrosion/Irritation Category 1B – H314 Serious Eye Damage/Irritation Category 1 – H318
Ammonium Bi Fluoride	12125-01-8	1-5	Serious Eye Damage / Eye Irritation Category 2B– H320 STOT Repeated Exposure Category 2 – H373

4. FIRST AID MEASURES

Inhalation:

Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTRE or doctor/physician.

Eye Contact:

In case of eye contact, rinse with plenty of water and seek medical attention immediately. Cold water may be used. Keep the eyelids apart and away from the eyeballs during irrigation. Do not use oily drops or ointment or HF skin burn treatments on the eyes. Get medical attention immediately, preferably an eye specialist. Place ice pack on eyes until reaching emergency room.

Skin Contact:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cold water may be

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	used. Material is absorbed through the skin. Get medical attention immediately. While waiting for medical attention, it has been shown that flushing the affected area with water for one minute and then massaging HF Antidote Gel into the wound until there is a cessation of pain is a most effective first aid treatment. HF Antidote Gel contains Calcium Gluconate which combines with HF for insoluble Calcium Fluoride, thus preventing the extraction of calcium from the body tissue and bones. Another alternative first aid treatment, after thorough washing of the burned area, is to immerse the burned area in a solution of 0.2% iced aqueous Hyamine 1622 or 0.13% iced aqueous Zephiran Chloride. If immersion is impractical, towels could be soaked with one of the above solutions and used as compresses for the burn area. Hyamine 1622 is a trade name for Tetracaine Benzethonium Chloride. Zephiran is a trade name for Benzalkonium Chloride.
Ingestion:	Wash out mouth with water. Drink plenty of water. Do not induce vomiting unless directed by medical personal. Never give anything to an unconscious person. Immediately call a POISON CENTRE or doctor/physician.
Notes to Physician:	Treatment based on judgment of attending physician. Gastric lavage is not recommended.
Most Important symptoms and effects, both acute and delayed:	Caustic burns/corrosion to the skin. Dry/red skin. Corrosion of the eye tissue. Nausea. Abdominal pain. Blood in vomit. Burns to gastric/intestinal mucous.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:	Water spray for extinguishing agent. CO2, dry chemical, alcohol resistant foam, sand.
Unsuitable extinguishing media:	None known. Do not use a heavy stream of water.
Special exposure hazards	Thermal decomposition releases corrosive vapours. Decomposes on exposure to temperature rise.
Special safety equipment:	Self-contained positive pressure breathing apparatus and protective clothing.
Fire and explosion	Not flammable. Not an explosive hazard.
Further information	Keep containers and surrounding cool with water spray. May release toxic hydrogen fluoride. Contact with reactive metals may result in the generation of flammable hydrogen gas. Container explosion may occur. (See also Stability and Reactivity section).

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not get in eyes, on skin, or on clothing. Do not breathe vapour or mist.

For Non-Emergency Personnel:

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel:

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters

Methods and Material for Containment and Cleaning Up:

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

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Methods for Cleaning Up: Clear up spills immediately with absorbent and dispose of waste safely. Clean-up personnel need personal protection from inhalation and skin/eye contact. Evacuate and ventilate the area. Neutralize diluted spill with soda ash or lime. Absorb neutralized spill with vermiculite or other inert absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste or cleanup materials in accordance with local regulations. Containers, even when empty, will retain residue and vapors.

Reference to Other Sections

See Heading 8. Exposure controls and personal protection.

7. HANDLING AND STORAGE

Precautions for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Do not breathe mist, vapours, spray.

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Information about fire and explosion protection:

Keep respiratory protective device available.

No special measures required.

Conditions for safe storage, including any incompatibilities:

Storage: Oxidizers, reducing agents, strong bases and metals.

Requirements to be met by storerooms and receptacles:

Store in a cool location.

Protect from humidity and water. Unsuitable material for receptacle: steel.

Unsuitable material for receptacle: aluminium.

Information about storage in one common storage facility:

Do not store together with alkaline products, oxidizers or reducing agents.

Store away from foodstuffs.

Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Store receptacle in a well-ventilated area.

Keep container tightly sealed.

Specific end use(s) No further relevant information available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters:

Appropriate Engineering Controls:

Engineering Measures

Showers. Eyewash Stations. Ventilation Systems.

Individual Protection Measures:

Respiratory protection:

Use local exhaust or dilution ventilation.

Hand protection:

Chemical resistant gloves.

Eye protection:

Safety goggles or full-face shield.

Skin protection:

Use body-covering impervious clothing.

Working hygiene:

Take usual precautions when handling. Workers should wash hands before eating, drinking or smoking.

Exposure Guidelines

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ortho-Phosphoric Acid:	ACGIH TWA 1 mg/m ³ ACGIH STEL 3 mg/m ³ OSHA PEL (TWA) 1 mg/m ³
Sulphuric Acid:	ACGIH TWA 0.2 mg/m ³ ACGIH STEL 1 mg/m ³ OSHA PEL (TWA) 1 mg/m ³

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

<u>Physical State</u>	Liquid	<u>Odour</u>	Acid.
<u>Appearance</u>	Clear Liquid.	<u>Odour Threshold</u>	No data available.
<u>Colour</u>	Water white.	<u>Remarks/Method</u>	
<u>Property</u>	<u>Values</u>		
pH	<1.0	None known	
Melting/Freezing Point	No data available	None known	
Boiling Point/Range	100 C	None known	
Flash Point	Not applicable.	None known	
Evaporation Rate	Similar	None known	
Flammability (solid, gas)	Not flammable	None known	
Flammability Limit in Air:	Not flammable		
Upper Limit	No data available	None known	
Lower Limit	No data available	None known	
Vapour Pressure	No data available	None known	
Vapour density	No data available	None known	
Specific Gravity	1.13 g/cm ³		
Water Solubility	Soluble in water.	None known	
Solubility Other Solvents	No data available	None known	
Partition Coefficient:			
n-octanol/water	No data available	None known	
Autoignition temperature	No data available	None known	
Decomposition Temperature	No data available	None known	
Kinematic Viscosity	No data available	None known	
Dynamic Viscosity	No data available	None known	
Explosive Properties	No data available	None known	
Oxidizing Properties	No data available	None known	
<u>Other Properties:</u>			
Softening Point	No data available		
VOC Content %	No data available		
Particle Size	No data available		
Particle Size Distribution	No data available		

10. STABILITY AND REACTIVITY

Reactivity	Violent exothermic reaction with (some) bases. Violent to explosive reaction with many compounds e.g.: with (strong) oxidizers and with (strong) reducers.
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Chemical stability	Stable under recommended handling and storage conditions (see section 7).
Thermal decomposition/conditions to avoid:	No decomposition if used and stored according to specifications.
Possibility of hazardous reactions	Not established.
Conditions to avoid	Direct sunlight. Extremely high or low temperatures. Contact with metallic substances. Do not contact with glass.
Hazardous decomposition products	Carbon oxides (CO, CO ₂). Sodium oxides. Carbon monoxide. Carbon dioxide. Thermal decomposition generates: corrosive vapours and hydrogen chloride.
Materials to avoid	Reducing agents. Strong acids. Strong bases. Cyanides
Hazardous polymerization	Will not occur

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity: Harmful or fatal if swallowed.

LD/LC50 values relevant for classification:

ortho-Phosphoric Acid CAS# 7664-38-2:

LD50 (Oral, rat): 1,530 mg/kg

LD50 (Dermal, rat): 2,740 mg/kg

Sulphuric Acid CAS# 7664-93-9

LD50 (Oral, rat): 2,140 mg/kg

Ammonium Bi Fluoride CAS # 12125-01-8:

LD50 (Oral/Rat): 31 mg/Kg

On the skin: Causes severe skin irritation and eye damage. (PH: <1.0).

On the eye: Causes serious eye damage. (PH: <1.0)

Respiratory or Skin Sensitization: Not classified.

Additional toxicological information:

Carcinogenicity:

Chemical Name: Sulfuric acid as aerosol or mist is classified as suspected carcinogen by ACGIH and IARC.

12. ECOLOGICAL INFORMATION

Toxicity:	Not available
Persistence and Degradability:	Not available
Bioaccumulative Potential:	Not available
Mobility in Soil:	Not available
Other Adverse Effects	Not available
Other Information:	Avoid release to the environment.

13. DISPOSAL

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, and international regulations.

Ecology – Waste Materials: Avoid release to the environment.

14. TRANSPORTATION INFORMATION

Canadian TDG (Road & Rail): Regulated Material

Proper Shipping Name: Corrosive liquid N.O.S

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Contains (Phosphoric acid, Sulphuric acid, Ammonium hydrogen difluoride)

Hazard Class: 8 (6.1)

ID Number: UN 1760

Packing Group: II



U.S. Department of Transportation (DOT): Regulated material

Proper Shipping Name: Corrosive liquid N.O.S

Contains (Phosphoric acid, Sulphuric acid, Ammonium hydrogen difluoride)

Hazard Class: 8 (6.1)

ID Number: UN 1760

Packing Group: II



Water Transportation (IMDG): Regulated Material

Proper Shipping Name: Corrosive liquid N.O.S

Contains (Phosphoric acid, Sulphuric acid, Ammonium hydrogen difluoride,)

Hazard Class: 8 (6.1)

ID Number: UN 1760

Packing Group: II



Air Transportation (IATA): Regulated Material

Proper Shipping Name: Corrosive liquid N.O.S

Contains (Phosphoric acid, Sulphuric acid, Ammonium hydrogen difluoride)

Hazard Class: 8 (6.1)

ID Number: UN 1760

Packing Group: II



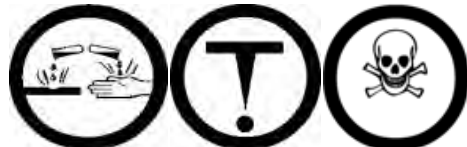
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15. REGULATORY INFORMATION

Occupational Health & Safety Regulations:

WHMIS 1988 Classification: Class D - Division 2a Class D1a, Class E



OSHA & WHMIS: MSDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) and Canadian WHMIS regulations (Controlled Products Regulations under the Hazardous Products Act).

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - All components of this product are listed or are exempt or excluded from listing on the United States Toxic Substances Control Act Section 8(b) Inventory.

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

HMIS III Rating

Health: 3 Serious Hazard

Flammability: 0 Minimal Hazard

Physical: 0 Minimal Hazard

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Personal Protection: B

SDS US (GHS HazCom 2012 and WHMIS 2015)

16. OTHER INFORMATION

Prepared By: Technical Department.

Issuing Date: December 30, 2017

Disclaimer:

The manufacturer warrants that this product conforms to its standard specification when used according to direction. To the best of our knowledge the information contained herein is accurate. However, we do not assume accuracy or completeness of the information contained herein.

Final determination of the suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

End of Safety Data Sheet