Safety Data Sheet

Section 1: Product identification and use

Product Identifier: **TCI 4961 H.D.**

Process Identifier: One step detergent iron phosphating solution for 70°C or 150°F spray or immersion applications—molybdate free

24 H EMERGENCY: 613-996-6666

Manufacturer's name and address:

Tetra-Chem Industries Ltd.
271 Ingersoll St. S., Ingersoll ON N5C 3J7 Canada
Phone: 519-485-4370 — Toll free: 888-658-5515

Supplier's name and address:

Tetra-Chem Industries Ltd.
271 Ingersoll St. S., Ingersoll ON N5C 3J7 Canada
Phone: 519-485-4370 — Toll free: 888-658-5515

Section 2: Hazard identification

GHS Classification
Corrosive to Metals—Category 1
Eye Irritation—Category 2B
Skin Irritation—Category 3

Pictograms

Signal Word
Warning

Hazard Statements
H290—May be corrosive to metal.
H316—Causes mild skin irritation.
H320—Causes eye irritation.

Precautionary Statements
P234—Keep only in original container.
P264—Wash hands thoroughly after handling.
P305+P351+P338—IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P332+P313—If skin irritation occurs: Get medical advice or attention.
P337+P313—If eye irritation persists get medical advice or attention.
P390—Absorb spillage to prevent material damage.
P406—Store in a corrosion resistant container of HDPE plastic.

Section 3: Composition / information on ingredients

Hazardous Ingredients:	CHEMICAL NAME	CAS NUMBER	CONCENTRATION [%]
	Phosphoric acid	7664-38-2	1–5

Section 4: First aid measures

Description of First Aid Measures
General: Determine areas of exposure.
Inhalation: Excessive exposure - move the fresh air.
Skin Contact: Wash with cold water or neutralize with baking soda solution.
Eye Contact: Remove contact lenses. Rinse with cold water or saline solution.
Ingestion: If victim is conscious administer antacid in liquid or tablet form. Seek immediate medical attention. Do not induce vomiting.

Most Important Symptoms and Effects Both Acute and Delayed
General: Low risk to adverse health effects.
Inhalation: Respiratory irritation or sore throat.
Skin Contact: Mild irritation.
Eye Contact: The acid solution can travel to the back of the eye ball and corrode the optic nerve if sprayed directly into the eyes. The delayed effect symptoms are a scaly rash for 3-4 days when blinking. Seek medical attention.
Ingestion: Burning sensation just like acid reflux. Seek medical attention.

Section 5: Fire-fighting measures

Extinguishing Media
Suitable Extinguishing Media: Evaluate based on surrounding fire.
Unsuitable Extinguishing Media: Evaluate based on surrounding fire.
Special Hazards Arising From the Substance or Mixture
Fire Hazard: Corrosive acid vapours at high temperatures.
Explosion Hazard: No risk.
Reactivity: No risk.

Advice for Firefighters
Precautionary Measures Fire: Evaluate based on surrounding fire.
Firefighting Instructions: Evaluate based on surrounding fire.
Protection During Firefighting: Evaluate based on surrounding fire.
Hazardous Combustion Products: Oxides of Carbon, Acid vapours.

Section 6: Accidental release measures

Personal Precautions, Protective Equipment and Emergency Procedures
General Measures: Wear impervious splash protection. Neutralize with copious amounts of water or alkaline solutions and flush to ground or sanitary sewers.
For Non-Emergency Personnel
Protective Equipment: Wear impervious splash protection.
Emergency Procedures: Neutralize with copious amounts of water or alkaline solutions and flush to sanitary sewers. For large spills use containment and dike.
Phone Number of your local authority for Emergency Spill Response:

_____

For Emergency Personnel
Protective Equipment: Wear impervious splash protection.
Emergency Procedures: Neutralize with copious amounts of water or alkaline solutions and flush to ground or sanitary sewers.
Environmental Precautions
Methods and Material for Containment and Cleaning Up
For Containment: Water absorbent pads.
Methods for Cleaning Up: Mop up small spills and dispose to sanitary sewer.

Section 7: Handling and storage

Precautions for Safe Handling
Additional Hazards When Processed: Use only Manufacturer supplied storage and/or dispensing equipment. See GHS WORKPLACE LABEL in your work area.
Hygiene Measures: Do not eat, drink or smoke while using this product. Personal Protection Equipment required when cleaning aluminum articles on equipment.
Conditions for Safe Storage, Including Any Incompatibilities
Technical Measures: Provide sufficient air exchange in application work areas.
Storage Conditions: Keep only in original containers.

Incompatible Materials: Do not mix with other cleaners.
Special Rules on Packaging: Consult Manufacturer or Supplier.

Specific End Use(s) **TCI 4961 H.D.** is a Phosphoric Acid based iron phosphating concentrate that is applied to steel surfaces to degrease and deposit iron phosphate crystals preferably at 70°C and 0.5–1.5 % dilution by spray or immersion.

Scan Label QR for Product Application Sheet and SDS for safe intended use.

Section 8: Exposure controls / personal protection

Control Parameters
ACGIH TLV: 25 mg/m³ (TWA) 75 mg/m³ (STEL)
OSHA PEL: 25 mg/m³ (TWA)
Exposure Controls
Appropriate Engineering Controls: Adequate ventilation to meet exposure limits by removing the hazard from an inside or outside work environment. The chemical constituents of the cleaning solution do not evaporate but can be atomized by spraying or misting.
Personal Protective Equipment:

Other Information: Acid resistant GLOVES are not always required to prevent unsuspected and prolonged acid solution pooling. In confined wash bays with minimal ventilation use NIOSH approved respirators for acid mist.

Section 9: Physical and chemical properties

Information on Basic Physical and Chemical Properties
Physical State: Liquid.
Appearance: Yellow.
Odour: Acidic.
Odour Threshold: Not available.
pH: 1
Relative Evaporation Rate (butyl acetate=1): 0.3
Melting Point: Not applicable.
Freezing Point: –5°C
Boiling Point: 100°C.
Flash Point: Not applicable.
Auto-ignition Temperature: Not applicable.

Decomposition Temperature: Not applicable.
Flammability (solid/gas): Not applicable.
Lower Flammable Limit: Not applicable.
Upper Flammable Limit: Not applicable..
Vapour Pressure: Not applicable.
Relative Vapour Density at 20°C: Not applicable..
Relative Density (water=1): 1.03
Solubility in Water: Complete
Partition coefficient: n-octanol/water: Not applicable.
Viscosity: 10 centipoise @ 20°C.
Explosion Data – Sensitivity to Mechanical Impact: Not applicable.
Explosion Data – Sensitivity to Static Discharge: Not applicable.

Section 10: Stability and reactivity

Reactivity: None when used as directed.
Chemical Stability: Stable.
Possibility of Hazardous Reactions: None when used as directed.

Conditions to Avoid: Chlorine or bleach.
Incompatible Materials: Chlorine bleach and strong alkali.
Hazardous Decomposition Products: Chlorine gas.

Section 11: Toxicological information

Information on Toxicological Effects - Product
Acute Toxicity: Not available.
LD_{50} Data (Species-Route): 20 g/kg(Rat - oral).
LC_{50} Data (Species-Route): 20 g/m³ (Rat - inhalation) 8hrs.
Skin Corrosion/Irritation: Mild irritant (Acute exposure).
Serious Eye Damage/Irritation: Stinging, Corneal injury (Acute exposure).
Respiratory or Skin Sensitization: Not suspected.
Germ Cell Mutagenicity: Not suspected.
Teratogenicity: Not suspected.
Carcinogenicity: Not suspected.

Specific Target Organ Toxicity (Repeated Exposure): Not available.
Reproductive Toxicity: Not suspected.
Specific Target Organ Toxicity (Single Exposure): Not suspected.
Aspiration Hazard: Not anticipated.
Symptoms/Injuries After Inhalation: Irritation/burning sensation.
Symptoms/Injuries After Skin Contact: Slight irritation/redness observation.
Symptoms/Injuries After Eye Contact: Stinging/scaly sensation.
Symptoms/Injuries After Ingestion: Sore throat/burns.
Information on Toxicological Effects - Ingredients
Large doses can change the body's pH and electrolyte balance.

Section 12: Ecological information

Toxicity: Not applicable when used as directed.
Mobility in Soil: Neutralizes and binds to soil. Detergents are biodegradable.

Other Adverse Effects
Other Information: No unusual adverse effects encountered.

Section 13: Disposal considerations

Waste Disposal Recommendations: Consult Manufacturer or Supplier.
Additional Information: The cleaning process may generate a hazardous industrial waste. Comply with Canadian Ministry of Environment and Climate Change: Regulation 347 and local municipal by-laws. Comply with US EPA's federal, state & local regulations. Tetra-Chem Industries Ltd. is licensed by the Ministry of the Environment and Climate Change for waste management. Ontario Certificate of Approval # A 800506.
Provincial Waste Class: Waste stream to be determined for treatment method.

Section 14: Transport information

TDGA Canada—Dangerous Goods: REGULATED.
49 CFR (USA)—Dangerous Goods: REGULATED.
IMDG (Vessel)—Dangerous Goods: REGULATED.
IATA (Cargo air)—Dangerous Goods: REGULATED.
IMDG (Passenger air)—Dangerous Goods: REGULATED.

EMERGENCY ASSISTANCE: CANADA Canutec 1-888-CANUTEC (1-888-226-8832)

Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
Hazard Class: CLASS 8
Identification Number: UN3264
Packing Group: PG III
Label /Placard Codes: CORROSIVE 8

Section 15: Regulatory information

CANADA: All ingredients are listed on the DSL Domestic Substance List.

USA: All ingredients are listed on the TSCA Toxic Substances Control Act.

Section 16: Other information

Prepared by: Health and Safety committee
Contact: A. Struthmann (Hon. BSc.)
Telephone: 1-519-536-1617
Date prepared: 2023-02-28

Additional information: The information in this SDS has been obtained from sources believed to be reliable. The manufacturer and supplier provides no warranties express or implied and assumes no responsibility for the accuracy or the completeness of the data contained herein.