Safety Data Sheet

Section 1: Product identification and use

Product Identifier: **TCI 524-30 H.D.**

Process Identifier: Stainless steel/extruded aluminum-chemical, welding soot & atmospheric corrosion cleaner ready-to-use

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

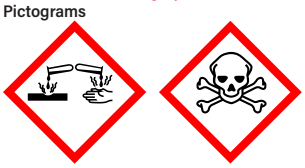
Supplier's name and address:

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
Acute Toxicity (Dermal)—Category 3
Acute Toxicity (Inhalation)—Category 3
Acute Toxicity (Oral)—Category 3
Corrosive to Metals—Category 1
Serious Eye Damage—Category 1
Skin Corrosion—Category 1B

Pictograms



Signal Word
Danger

Hazard Statements
H290—May be corrosive to metals.
H301—Toxic if swallowed.
H311—Toxic in contact with skin.
H314—Causes severe skin burns and eye damage.
H318—Causes serious eye damage.
H331—Toxic if inhaled.

Precautionary Statements
P234—Keep only in original container.
P260—Do not breathe mist or spray.
P261—Avoid breathing mist or spray.
P264—Wash hands 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 protective gloves, protective clothing and eye protection.
P284—Wear respiratory protection inside a wash bay or other confined space.
P301+P310—IF SWALLOWED: Immediately call a doctor at a hospital emergency department.
P301+P330+P331—IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352—IF ON SKIN: Wash with plenty of water or apply an aqueous 2% baking soda solution.
P303+P361+P353—IF ON SKIN OR HAIR Immediately remove all contaminated clothing. Rinse skin with water and/or shower or immediately apply an aqueous 2% baking soda solution..
P304+P340—IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338—IF IN EYES: Remove contact lenses. Rinse cautiously with water for several minutes. The acid solution can travel to the back of the eye ball and corrode the optic nerve if sprayed directly into the eyes.
P310—Immediately call a doctor at a hospital emergency department.
P320—Specific treatment is urgent (apply an aqueous 2% baking soda solution immediately).
P321—Specific treatment after prolonged exposure: Causes severe skin burns which may not become apparent for several hours. Apply and massage with 2.5% Calcium Gluconate Gel.
P330—Rinse mouth.
P361+P364—Take off immediately all contaminated clothing and wash it before reuse.
P363—Wash contaminated clothing before reuse.
P390—Absorb spillage to prevent material damage.
P403+P233—Store in a well ventilated place. Keep container tightly closed.
P405—Store locked up.
P406—Store in original corrosive resistant container.
P501—Dispose of contents and/or container (See Section 13) in accordance with local/regional/national/international regulations.

Section 3: Composition / information on ingredients

Hazardous Ingredients:	CHEMICAL NAME	CAS NUMBER	CONCENTRATION [%]
	Nitric acid	7697-37-2	1 - 5
	Hydrofluoric acid	7664-39-3	0.5 - 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.
Apply 2.5% Calcium Gluconate Gel and massage deep into the skin.
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: HIGH RISK adverse health effects.
Inhalation: Respiratory irritation or sore throat with ulceration possible.
Skin Contact: Causes severe skin burns which may not become apparent for several hours. Apply and massage with 2.5% Calcium Gluconate Gel. Seek immediate medical attention.
Eye Contact: Causes serious eye damage. 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 and ulceration 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: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Protection During Firefighting: Self-contained breathing apparatus and full protective clothing must be worn in case of 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 for proper waste processing and disposal. For large spills use containment and dike.

For Emergency Personnel
Protective Equipment: Wear impervious spray/splash protection.
Emergency Procedures: Neutralize with copious amounts of water or alkaline solutions to achieve a neutral salt solution and contain for proper waste processing and disposal.
Environmental Precautions
Methods and Material for Containment and Cleaning Up
For Containment: Water absorbent pads.
Methods for Cleaning Up: Mop up small spills for proper waste processing and disposal.

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 stainless steel or 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 524-30 H.D.** Stainless Steel/Extruded Aluminum - Chemical/Welding & Atmospheric Corrosion Cleaner READY-TO-USE is intended to clean, degrease and passivate surfaces on a maintenance schedule and applied to dissolve and remove residual corrosion with high pressure cold water.

See Product Application Sheet or Label QR for safe intended use.

Section 8: Exposure controls / personal protection

Control Parameters
ACGIH TLV: 25 ppm (TWA)
OSHA PO: 225 mg/m³ (STEL)
NIOSH REL: 100 ppm (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: Water clear.
Odour: Acidic.
Odour Threshold: Not available.
pH: 1
Relative Evaporation Rate (butylacetate=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): 1.07
Solubility in Water: Complete
Partition coefficient: n-octanol/water: Not applicable.
Viscosity: 1.5 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, Oxides of Nitrogen.

Section 11: Toxicological information

Information on Toxicological Effects - Product
Acute Toxicity: Not available.
LD_{50} Data (Species-Route): 70 mg/kg (Rat - oral).
LC_{50} Data (Species-Route): 7 mg/l (Rat - inhalation) 4hrs.
Skin Corrosion/Irritation: Redness/delayed burns (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: Irritation/redness/delayed burns.
Symptoms/Injuries After Eye Contact: Stinging, irreversible eye damage.
Symptoms/Injuries After Ingestion: Sore throat/burns/ulceration.
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., (Nitric Acid),
Hazard Class: 8
Identification Number: UN3264
Packing Group: III
Label/Placard Codes: 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: 2023-03-02
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.