Safety Data Sheet

Section 1: Product identification and use

Product Identifier: **TCI 1100 H.D.**

Process Identifier: Acid neutralizer and multivalent metal ion precipitant for waste water treatment (ready to use)

24H 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

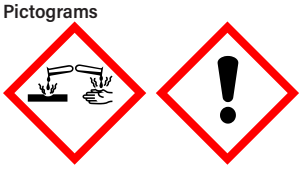
Supplier's name and address:

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
Serious Eye Damage—Category 1
Skin Corrosion—Category 1A

Pictograms



Signal Word
DANGER

Hazard Statements
H290—May be corrosive to metal.
H302—Harmful if swallowed.
H314—Causes severe skin burns and eye damage.
H318—Causes serious eye damage.

Precautionary Statements
P234—Keep only in original container.
P260—Do not breathe mist or spray.
P264—Wash hands and/or gloves thoroughly after handling.
P280—Wear protective gloves, protective clothing, eye protection and face protection.
P301+P312—IF SWALLOWED: Go to the hospital emergency immediately take SDS.
P301+P330+P331—IF SWALLOWED: Rinse mouth with water. Do not induce vomiting.
P303+P361+P353—IF ON SKIN (or hair): Remove all contaminated clothing immediately. Rinse skin with plenty of water or use shower if available for 30 minutes.
P304+P340—IF INHALED: Go to the hospital emergency immediately take SDS. 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 so. Continue rinsing.
P310—Go to the hospital emergency immediately take SDS.
P321—Specific treatment First Aid: Always have a 5% Vinegar solution on hand for immediate application to the affected areas (see SDS).
P337+P313—If eye irritation persists get medical advice/attention.
P363—Wash contaminated clothing before reuse.
P390—Absorb spillage to prevent material damage.
P405—Store locked up.
P406—Store in a corrosive resistant HDPE container.
P501—Dispose of contents/container SEE SECTION 12 in accordance with local/regional/national/international regulations as specified.

Section 3: Composition / information on ingredients

Hazardous Ingredients:	CHEMICAL NAME	CAS NUMBER	CONCENTRATION [%]
	Potassium Hydroxide	1310-58-3	30 - 60

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 5% vinegar solution.
Eye Contact: Remove contact lenses. Rinse with cold water or saline solution.
Ingestion: If victim is conscious administer 5% vinegar solution. 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: Severe skin burns.
Eye Contact: The alkali 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 caustic 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, Caustic 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 safe acid solutions and flush to sanitary sewers if at pH 8.5.
For Non-Emergency Personnel
Protective Equipment: Wear impervious splash protection.
Emergency Procedures: Mop up small spills with water and flush to sanitary sewers. Large spills should be contained and reported immediately.
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 safe acid solutions and flush to sanitary sewers if the pH is below 8.5 and above 5.5.
Environmental Precautions
Methods and Material for Containment and Cleaning Up
For Containment: Water/oil 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 for cleaning process.
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 1100 H.D. Acid Neutralizer and Metal Ion Precipitant for Waste Water Treatment (Ready to Use) is used to neutralize acids and precipitate corrosion by-products from cleaning procedures of most metal surfaces in the metal fabrication industry. Scan Label QR for Product Application Sheet and SDS for safe intended use.

Section 8: Exposure controls / personal protection

Control Parameters
ACGIH TLV: **15 mg/m³ (TWA)** 175 ppm (SKIN 500 mg/m³ (INHALATION)
OSHA PEL: **15 mg/m³ (TWA) 175** ppm (SKIN) 500 mg/m³ (INHALATION)

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 does not evaporate. **Some Potassium Hydroxide may carry out in steam or vapour if solution is boiling vigorously.**

Personal Protective Equipment:

Other Information: Alkali resistant GLOVES are always required. In confined wash areas with minimal ventilation use NIOSH approved respirators and splash protection for alkaline mist when rinsing parts.

Section 9: Physical and chemical properties

Information on Basic Physical and Chemical Properties
Physical State: Liquid.
Appearance: Water clear with slight tint of amber.
Odour: Detergent.
Odour Threshold: Not available.
pH: 14
Relative Evaporation Rate (butyl acetate=1): 0.3
Melting Point: Not applicable.
Freezing Point: 0°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: 20 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: Reacts violently with strong acids.
Chemical Stability: Stable.
Possibility of Hazardous Reactions: None when used as directed.
Conditions to Avoid: Strong oxidizers.

Incompatible Materials: White metals or their alloys: aluminum, magnesium, lead, tin, zinc, brass and babbitt.
Hazardous Decomposition Products: Hydrogen release from above metals.

Section 11: Toxicological information

Information on Toxicological Effects - Product
Acute Toxicity: Not available.
LD_{50} Data (Species-Route): 273 mg/kg(Rat - oral).
LC_{50} Data (Species-Route): Not available.
Skin Corrosion/Irritation: Severe irritant: Human/Rabbit 50 mg/24hrs
Serious Eye Damage/Irritation: Moderate corneal injury: Rabbit 1 mg/24hrs
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. Tearing/Redness.
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 turns to salt in soil.

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: UN1814, POTASSIUM HYDROXIDE SOLUTION,
Hazard Class: 8
Identification Number: UN1814
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: 2023-03-01

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.