



TETRA-CHEM INTERNATIONAL INC.

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Chem Wash

HYDROTEK TCI APPLIED SCIENCE

SPECIALTY CHEMISTRY INNOVATIVE ENGINEERING
APPLICATION TECHNOLOGY WASTE MANAGEMENT SYSTEMS2012 EDWARDS
WICHITA, KS 67213 USAemail: info@tetra-chem.com

RE-ORDER: 316-744-SOAP

PRODUCT APPLICATION PRESENTATION

PRODUCT IDENTIFIER:

T C I 3 0 1 - 5 0 H . D .TM

PROCESS IDENTIFIER:

CLINKER, CEMENT, LIME, RUST, SCALE & CONCRETE REMOVER

PRODUCT INTRODUCTION:

TCI 301-50 H.D. is a ready to use complex liquid formulation of environmentally friendly acids with unique fume suppressants and stable biodegradable wetting agents. TCI 301-50 H.D. is inhibited against metal substrate corrosion by 99.9%.

PACKAGING: 005, 055, 330 USgal

PROCESS INTRODUCTION:

TCI 301-50 H.D. formula effectively removes light-heavy deposits of residual cement, concrete, mortar, rust, scale, lime, drywall compound, stucco and plaster with minimal time and effort.

It is designed for the construction industry to clean equipment used in hauling cement, on-site process mixers, ready-mix trucks and chutes. It is used for the clean-up of splatter, tools, forms, wheelbarrows etc.

PRECAUTIONARY NOTES:

Do not let any chemical solution dry on any surface (concentrates may cause irreversible damage), be careful to protect people, plants and animals, stationary and mobile property from wind drift.

Accessories on finished products, such as light assemblies, reflectors, glass & mirrors, plastics, brass, stainless steel, hard chrome, decals, logos, wood, tarps, mud flaps or rubber tires are not altered or defaced by this chemical solution when used according to directions.



APPLICATION PROCEDURE:

THIS PROCEDURE IS FOR TRAINED PERSONNEL ONLY

SMALL TOOLS MANUAL CLEANING METHOD: For cleaning of small tools in the maintenance shop or off-site use a plastic pail or tray and brush. Pour the remaining liquid back into the original shipping container.

LARGE TOOLS AND EQUIPMENT CLEANING METHOD: To start the cleaning process, set up the manufacturer's approved "CHEMICAL APPLICATOR SYSTEM" and regulate the operating air pressure to 340-400 kPa (50-60 psi). The system draws the cleaner directly from the shipping container and delivers it through a variable length discharge hose directly to the dirty equipment without the cleaning crew having to handle or come in close proximity with the hazardous product. The pump will start and stop automatically by controlling the flow on demand at the shut-off valve on the applicator wand.

CAUTION: Do not spray TCI 301-50 H.D. directly onto a hot surface since it will result in stains or damage.

Use a pressure washer and walk around the whole unit being treated and thoroughly cool and wet the entire surface on a hot sunny day or any other time. The best time is early in the morning or evenings or in a controlled environment. Now apply the chemical solution as a spray to the entire body starting from the top and working down. Assure complete thin film coverage. Once the application is complete, re-apply the product to the remaining heavy encrustations and allow approximately a 5 minute chemical exposure time. Exposure time is directly proportional to soil thickness. Brushing is optional.

Rinse the entire body with high pressure (2500-3000psi) cold water starting at the bottom and consistently moving with a 6 inch fan or less in a horizontal pattern until the top is reached. Then rinse all residual chemical solution thoroughly from the top down. It is recommended to use the down stream chemical injection device on the power washer ie. TCI 710 H.D. to neutralize excess acid on the equipment and to control the pH of ground contamination, storm and sanitary sewer systems. This cleaning process does not generate a hazardous waste.

CAUTION: DO NOT LET ANY CHEMICAL DRY ON THE SURFACE (WIND DRIFT CHEMICAL SPRAY IS A POTENTIAL DANGER)
ie. CONCENTRATED CHEMICAL WITHOUT WATER MAY STAIN SURFACES IF NOT RINSED

PLEASE CALL OUR TECHNICAL SUPPORT LINE @ 1-888-658-5515 FOR SOLUTIONS TO YOUR INDUSTRY.
CONSULT SERVICE REPRESENTATIVE FOR SAFE AND EFFICIENT APPLICATION

THE INFORMATION GIVEN HEREIN IS GIVEN IN GOOD FAITH BUT NO WARRANTY, EXPRESSED OR IMPLIED IS MADE

M. S. D. S.

MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT IDENTIFICATION AND USE

PRODUCT NAME: T C I 3 0 1 - 5 0 H. D.
PRODUCT USE: ALUMINUM OXIDE, RUST, SCALE, LIME,
 CEMENT AND CONCRETE REMOVER (READY-TO-USE)

EMERGENCY PHONE #: (519) 454-4370

MANUFACTURER'S NAME AND ADDRESS:

TETRA-CHEM INTERNATIONAL INC.
 71 JOHN ST. E., BRIGHT ON CA N0J 1B0
TEL: (519) 454-4370 - **FAX:** (519) 454-4362

SUPPLIER'S NAME: CHEM WASH
 2012 EDWARDS
 WICHITA, KS 67213 **TEL:** (316) 744-7627

SECTION II - HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	CAS NUMBER	% BY WEIGHT
a) HYDROCHLORIC ACID	7647-01-0	10-30

(SPECIES-ROUTE) LD₅₀ LC₅₀

a) (RABBIT - oral): 900 mg/kg (RAT - inhalation): 3124 ppm/1H
 (MOUSE - inhalation): 757 ppm/4 H

SECTION III - PHYSICAL DATA

PHYSICAL STATE: SOLID ☐ LIQUID ☒ GAS ☐
ODOR AND APPEARANCE: PUNGENT ACIDIC (FUMES), LIGHT AMBER
BOILING POINT: 100 °C or 212 °F
FREEZING POINT: < 0 °C or 32 °F
pH: < 1.0
% VOLATILE: 90 **SPECIFIC GRAVITY (WATER=1):** 1.14
DENSITY (g/ml): 1.14 **ODOR THRESHOLD (ppm):** 1
VAPOR PRESSURE (mm Hg @ 20°C or 70 °F): 20
VAPOR DENSITY (AIR=1): 1.27 FOR HCl GAS
OIL / WATER DISTRIBUTION COEFF.: N.A.V.
SOLUBILITY IN WATER: COMPLETE
EVAPORATION RATE (n-BUTYL ACETATE=1): >1

SECTION IV - FIRE AND EXPLOSION HAZARD

FLAMMABILITY: YES ☐ NO ☒
UNDER WHAT CONDITIONS:
TDG FLAMMABILITY CLASSIFICATION: N.A.P.
AUTO-IGNITION TEMPERATURE: N.A.P.
FLASH POINT: NONE **METHOD USED:** TOC/CCC
FLAMMABLE LIMITS: LEL (% BY VOLUME): N.A.P.
 UEL (% BY VOLUME): N.A.P.
MEANS OF EXTINCTION:
WATER SPRAY ☒ **CO₂** ☐ **DRY CHEMICAL** ☐ **OTHER** ☐
UNUSUAL FIRE AND EXPLOSION HAZARDS / REMARKS:
 AS APPROPRIATE FOR THE SURROUNDING FIRE, SELF CONTAINED BREATHING APPARATUS
 HAZARDOUS COMBUSTION PRODUCTS: ACID FUMES.
EXPLOSION DATA: SENSITIVITY TO MECHANICAL IMPACT: N.A.P.
 SENSITIVITY TO STATIC DISCHARGE: N.A.P.

SECTION V - REACTIVITY DATA

STABILITY: UNSTABLE ☐ STABLE ☒
INCOMPATIBILITY TO OTHER SUBSTANCES: MILD STEEL, ALKALIES, STRONG
 OXIDIZING and REDUCING AGENTS, FORMALDEHYDE: bis (chloromethyl) ether a human carcinogen
CONDITIONS OF REACTIVITY: DIRECT CONTACT
HAZARDOUS DECOMPOSITION PRODUCTS: AT HI TEMP. HCl (g), H₂ AND Cl₂

SECTION VI - TOXICOLOGICAL PROPERTIES

CANADA WHMIS: CORROSIVE MATERIAL (E) CAUSES OTHER TOXIC EFFECTS (D2)
POTENTIAL HEALTH HAZARDS
ROUTE(S) OF ENTRY:
SKIN (ABSORPTION): NO **(CONTACT):** YES **INGESTION:** YES
INHALATION (ACUTE): YES **(CHRONIC):** YES **EYE:** YES
CHEMICAL **ACGIH TLV** **OSHA PEL**
 a. 5 ppm (ceiling) 5 ppm (ceiling)
EFFECTS OF ACUTE EXPOSURE TO PRODUCT:
EYE CONTACT: EXTREMELY CORROSIVE ! MAY CAUSE PAIN, SEVERE EYE IRRITATION, WITH
 CORNEAL INJURY (SCARRING AND CLOUDING) WHICH MAY RESULT IN PERMANENT IMPAIRMENT OF
 VISION, EVEN BLINDNESS. GLAUCOMA AND CATARACTS MAY OCCUR.
SKIN CONTACT: CORROSIVE ! MAY CAUSE SKIN IRRITATION, REDNESS, PAIN, DRYING AND
 CRACKING.
INGESTION: CORROSIVE ! MAY CAUSE GASTROINTESTINAL IRRITATION OR ULCERATION AND
 SEVERE BURNS OF THE MOUTH AND THROAT. IN SEVERE CASES IT MAY LEAD TO DEATH.
INHALATION: CORROSIVE ! MAY CAUSE IRRITATION TO NOSE, THROAT AND RESPIRATORY TRACT
 AT LOW ppm WITH COUGHING AND DISCOMFORT. HIGH CONCENTRATIONS MUCOSAL SURFACE
 CORROSION. OVEREXPOSURE MAY CAUSE DISCOLORATION AND EROSION OF THE TEETH.
CARCINOGENICITY, REPRODUCTIVE EFFECTS, TERATOGENICITY, MUTAGENICITY:
 NO REPORTED EFFECTS ON HUMANS UNDER NORMAL CONDITIONS OF USE.
TARGET ORGANS: N.A.V.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NONE KNOWN.
EFFECTS OF CHRONIC EXPOSURE TO PRODUCT: DIRECT CONTACT AND PROLONGED
 EXPOSURE MAY CAUSE SEVERE IRRITATION AND BURNS TO EYES AND DRYING OF
 THE SKIN. CHRONIC INHALATION MAY LEAD TO LOSS OF OLFACTORY SENSATION,
 BLEEDING OF NOSE AND GUMS, BRONCHITIS, STOMACH PAIN, ENAMAL DAMAGE.
SENSITIZATION TO PRODUCT: NONE **SYNERGISTIC PRODUCTS:** NONE

SECTION VII - PREVENTIVE MEASURES

RESPIRATORY PROTECTION AND TYPE: NIOSH/MSHA- APPROVED RESPIRATOR
 FOR ACID MIST UP TO 10 TIMES THE TLV. AIR SUPPLIED RESPIRATOR IN CONFINED AREAS.
ENGINEERING CONTROLS: MECHANICAL VENTILATION IN CONFINED AREAS TO MAINTAIN
 AIR QUALITY BELOW TLV.
PROTECTIVE GLOVES: NEOPRENE.
EYE PROTECTION: FACE SHIELD OR SAFETY GLASSES
FOOT WEAR: SAFETY SHOES OR RUBBER BOOTS
OTHER SPECIFIC CLOTHING OR EQUIPMENT REQUIRED: VINYL PANTS & JACKET,
 EYE BATH STATION
LEAK AND SPILL PROCEDURE: FLUSH WITH WATER INTO SANITARY SEWER AND
 VENTILATE WETNESS INTO THE ATMOSPHERE. FOR LARGE SPILLS, DIKE AND PUMP
 INTO DOT APPROVED PLASTIC CONTAINERS.
WASTE DISPOSAL:
 THE CLEANING PROCESS MAY GENERATE A HAZARDOUS INDUSTRIAL WASTE.
 COMPLY WITH CANADIAN MINISTRY OF THE ENVIRONMENT & ENERGY
 REGULATION 347 AND LOCAL MUNICIPAL BY-LAWS.
 COMPLY WITH USA EPA'S FEDERAL, STATE & LOCAL REGULATIONS.

HANDLING PROCEDURES AND EQUIPMENT: ACID SAFETY REGULATIONS
STORAGE REQUIREMENTS: ENCLOSED OUTSIDE STORAGE OR
 ROOM WITH OUTSIDE VENTILATION IF BUNGS ARE LEFT OFF.
SPECIAL SHIPPING INFORMATION: CORROSIVE LIQUID, N.O.S.
 CLASS 8, UN1760, PG III

SECTION VIII - FIRST AID MEASURES

EYE CONTACT: FLUSH EYES WITH WATER FOR 20 MINUTES. TURN BACK EYE
 LIDS. GET MEDICAL ATTENTION IMMEDIATELY.
INHALATION: MOVE PATIENT TO FRESH AIR. IF BREATHING HAS STOPPED,
 OR IS LABOURED, GIVE OXYGEN OR ARTIFICIAL RESPIRATION.
GET MEDICAL ATTENTION IMMEDIATELY.
INGESTION: DO NOT INDUCE VOMITING. AVOID ASPIRATION INTO LUNGS.
 RINSE MOUTH WITH WATER. ONLY IF CONSCIOUS, GIVE LARGE AMOUNTS OF
 MILK OR WATER. DO NOT GIVE BAKING SODA OR SODIUM CARBONATE.
 KEEP PATIENT CALM. CALL PHYSICIAN IMMEDIATELY.
FOR SKIN CONTACT: REMOVE CONTAMINATED CLOTHING. WASH WITH ALKA-
 LINE SOAP AND WATER. FLUSH AREA WITH FRESH WATER FOR 20 MIN-
 UTES. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION.

SECTION IX - PREPARATION DATA

PREPARED BY: HEALTH AND SAFETY COMMITTEE **DATE:** 05 JAN 2009
CONTACT: AL STRUTHMANN (Hon. BSc.) **TEL:** (519) 454-4370

NOTE: N. AP. = NOT APPLICABLE N. AV. = NOT AVAILABLE

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