



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 7 H . D .TM

PROCESS IDENTIFIER:

CEMENT, LIME, RUST, SCALE & CONCRETE REMOVER

PRODUCT INTRODUCTION:

TCI 307 H.D. is a ready to use complex liquid formulation of environmentally friendly non-fuming, no-smell organic acids with stable biodegradable wetting agents for maintaining the functionality of mobile mixers in the manufacture of concrete. The strength is equivalent to any concentrated product on the market. **3 kg** of TCI 307 H.D. will dissolve **1 kg** of lime related products.

TCI 307 H.D. is inhibited against metal substrate corrosion by 99.9% except on aluminum. This product can be used indoors without the staff being overcome by fumes from **MURIATIC ACID**. The equipment in the shop such as tools will not rust.

PROCESS INTRODUCTION:

TCI 307 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 assure that equipment used in hauling cement, on-site process concrete mixers, ready-mix trucks and chutes are in good working condition for each batch and during batching. 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 irreparable 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 a 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 307 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 cement 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 not necessary to use the down stream chemical injection device on the power washer ie. TCI 710 H.D. to neutralize excess acid on the equipment to control the pH of ground contamination, storm and sanitary sewer systems. This cleaning process does not generate a hazardous waste.



"BEFORE AND AFTER"
REMOVAL OF RESIDUAL
CEMENT PRODUCTS
FROM
READY-MIX TRUCKS



"BEFORE AND AFTER"
REMOVAL OF RESIDUAL
CEMENT PRODUCTS
FROM READY-MIX
TRUCK WHEELS

PACKAGING: 005, 055, 330 USgal

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 7 H. D.**
PRODUCT USE: **CEMENT, LIME, CONCRETE, SCALE.**
LIGHT RUST AND OXIDE 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) Urea monohydrochloride	506-89-8	30-60
(SPECIES-ROUTE) LD ₅₀		LC ₅₀
a) (RAT - oral): 1,121 mg/kg		N.AV.

SECTION III - PHYSICAL DATA

PHYSICAL STATE: SOLID ☐ LIQUID ☒ GAS ☐
ODOR AND APPEARANCE: **ACIDIC (NON-FUMING), LIGHT AMBER**
BOILING POINT: **100 °C or 212 °F**
FREEZING POINT: **< -10 °C or 20 °F**
pH: **< 1.0**
% VOLATILE: **90** SPECIFIC GRAVITY (WATER=1): **1.21**
DENSITY (g/ml): **1.08** ODOR THRESHOLD (ppm): **1**
VAPOR PRESSURE (mm Hg @ 20°C): **20**
VAPOR DENSITY (AIR=1): **N.AV.**
OIL / WATER DISTRIBUTION COEFF.: **N.AV.**
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: OXIDES OF CARBON, NITROGEN & CHLORINE. HYDROGEN GAS MAY BE RELEASED WITH CERTAIN METALS.
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.**
CONDITIONS OF REACTIVITY: **DIRECT CONTACT**
HAZARDOUS DECOMPOSITION PRODUCTS: **@ HI TEMP. HCl (g), H₂, Cl₂, CO₂, CO**

SECTION VI - TOXICOLOGICAL PROPERTIES

WHMIS: (E): **CORROSIVE MATERIAL** (D2): **CAUSES OTHER TOXIC EFFECTS**
POTENTIAL HEALTH HAZARDS
ROUTE(S) OF ENTRY:
SKIN (ABSORPTION): **NO** (CONTACT): **NO** INGESTION: **YES**
INHALATION (ACUTE): **YES** (CHRONIC): **YES** EYE: **YES**
CHEMICAL ACGIH TLV OSHA PEL
a. N.AV. N.AV.
EFFECTS OF ACUTE EXPOSURE TO PRODUCT:
EYE CONTACT: **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: **NON-CORROSIVE TO SKIN.**
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.AV.**
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: **N.AV.**
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: **N.AV.** SYNERGISTIC PRODUCTS: **N.AV.**

SECTION VII - PREVENTIVE MEASURES

RESPIRATORY PROTECTION AND TYPE: **NIOSH/MSHA- APPROVED RESPIRATOR FOR ACID MIST. 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: **ROOM WITH OUTSIDE VENTILATION ONLY !**
SPECIAL SHIPPING INFORMATION: **CORROSIVE LIQUIDS, n.o.s.* (Urea monohydrochloric acid) 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 ALKALINE SOAP AND WATER. FLUSH AREA WITH FRESH WATER FOR 20 MINUTES. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION.**

SECTION IX - PREPARATION DATA

PREPARED BY: **HEALTH AND SAFETY COMMITTEE** DATE: **01 JAN 2008**
CONTACT: **AL STRUTHMANN (Hon. BSc.)** TEL: **(519) 454-4370**
CANADA & USA TOLL FREE **1-888-658-5515** FAX: **(519) 454-4362**

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

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