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TETRA-CHEM INTERNATIONAL INC.

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Chem Wash
HYDROTEK TCI APPLIED SCIENCE

SPECIALTY CHEMISTRY INNOVATIVE ENGINEERING
APPLICATION TECHNOLOGY WASTE MANAGEMENT SYSTEMS

2012 EDWARDS
WICHITA, KS 67213 USA



email: info@tetra-chem.com



RE-ORDER: 316-744-SOAP

PRODUCT APPLICATION PRESENTATION

PRODUCT IDENTIFIER:

PROCESS IDENTIFIER:

PRODUCT PRESENTATION:

PROCESS SPECIFICITY:

TCI 523 H.D. is an amber colored formulation of mild acids and powerful biodegradable surface active detergents. **TCI 523 H.D.** is pumped from the shipping container and applied to the surface as is. This solution is made of high foaming detergents for fast surface coverage and thorough soil penetration. This product is designed for extruded aluminum on horse and cattle trailers only.

PROCESS INTRODUCTION:

The applied solution formulation is designed to effectively remove deeply embedded road films, dirt, oils, diesel soot, black welding soot, corrosion and oxide coatings without etching the surface to a white finish or leaving undesirable streaks. This procedure should only have to be used twice a year. In the meantime, regular washing should be done with **TCI 710 H.D.** Every time you clean, another layer of silicate protection is added to the aluminum to protect against salt corrosion.

THIS PROCEDURE IS FOR TRAINED PERSONNEL ONLY

To start operation, set up the "CHEMICAL APPLICATOR MANIFOLD SYSTEM" and regulate the air pressure to 340-400 kPa (50-60 psi). The pump will operate automatically by starting and stopping the flow on demand at the wand.

CAUTION: Do not spray TCI 523 H.D. directly onto a hot metal surface since it will alter the chemistry resulting in staining. Walk around the whole unit being treated and thoroughly cool and wet the entire surface on a hot sunny day. The best time is early in the morning or evenings. Spray the chemical solution directly from the drum onto the metal surface and have the PRESSURE WASHER ready for rinsing. Apply the chemical solution as a spray to the entire surface of the units body starting from the bottom and working up. Assure complete thin film coverage. Once the application is complete, allow approximately a 5-10 min chemical exposure time. Exposure time is directly proportional to soil thickness. Brushing is optional.

Rinse the section with high pressure @ 3000 psi water starting at the bottom and consistently moving with a 10 cm fan or less in a horizontal pattern until the top is reached. Then rinse all residual chemical solution thoroughly from the surface working from the top down. Be sure to always rinse the chemical solution overspray from other sections in the same fashion. Residual chemical activity causes pit corrosion over time. Special cautions apply to the bulk carriers because of their rounded tops. When the entire unit is complete, a final water rinse will assure no residual chemical activity on the aluminum surface.

PACKAGING: 005, 055, 330 USgal



TITAN Signature Finish created by TCI 523 H.D.

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

SECTION I - PRODUCT IDENTIFICATION AND USE

PRODUCT NAME: T C I 5 2 3 H. D.
PRODUCT USE: "READY TO USE" NON-ETCHING
EXTRUDED ALUMINUM CLEANER
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) PHOSPHORIC ACID	7664-38-2	1-5
b) SULPHURIC ACID	7664-93-9	1-5
(SPECIES-ROUTE) LD ₅₀		LC ₅₀
a) (RAT - oral): 1.53 g/kg		N.A.V.
(RAT - dermal): 2.74 g/kg		
b) (RAT - oral): 2.14 g/kg		(RAT - inhalation): 510 mg/m ³ /2hours

SECTION III - PHYSICAL DATA

PHYSICAL STATE: SOLID ☐ LIQUID ☒ GAS ☐
ODOR AND APPEARANCE: ACIDIC IRRITATING ODOR, CLEAR LIQUID
BOILING POINT: > 100 °C or 212 °F
FREEZING POINT: < - 10 °C or 20 °F
pH: 1.0
% VOLATILE: 70 %
SPECIFIC GRAVITY (WATER=1): 1.24
ODOR THRESHOLD (ppm): 0.04 - 0.13
VAPOR PRESSURE: 4.1 kPa @ 21 °C or 72 °F
VAPOR DENSITY (AIR=1): N.A.V.
DENSITY (g/ml): 1.2
OIL / WATER DISTRIBUTION COEFF.: N.A.V.
SOLUBILITY IN WATER: COMPLETE
EVAPORATION RATE (n-BUTYL ACETATE=1): N.A.P.

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/CC
FLAMMABLE LIMITS: LE L (% BY VOLUME): N.A.P.
 UEL (% BY VOLUME): N.A.P.
MEANS OF EXTINCTION:
 WATER ☒ CO₂ ☐ DRY CHEMICAL ☐ OTHER ☐
UNUSUAL FIRE AND EXPLOSION HAZARDS / REMARKS:
 USE AN APPROPRIATE MEANS OF EXTINCTION FOR THE SURROUNDING FIRE.
HAZARDOUS COMBUSTION PRODUCTS: N.A.P.
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
CONDITIONS OF REACTIVITY: DIRECT CONTACT
HAZARDOUS DECOMPOSITION PRODUCTS: MAY LIBERATE HYDROGEN

SECTION VI - TOXICOLOGICAL PROPERTIES

WHMIS: CORROSIVE MATERIAL (E)
 CAUSING IMMEDIATE AND SERIOUS TOXIC EFFECTS (D1)
POTENTIAL HEALTH HAZARDS ROUTE(S) OF ENTRY:
SKIN (CONTACT): YES (ABSORPTION): YES **INGESTION:** YES
INHALATION (ACUTE): YES (CHRONIC): YES **EYE:** YES
INGREDIENT **ACGIH TLV** **OSHA PEL**
 a. 1 mg/m³ (TWA) 3 mg/m³ (STEL) 1 mg/m³ (TWA)
 b. 1 mg/m³ (TWA) 3 mg/m³ (STEL) 1 mg/m³ (TWA)
EFFECTS OF ACUTE EXPOSURE TO PRODUCT:
EYE CONTACT: MAY CAUSE PAIN AND SEVERE EYE IRRITATION, WITH CORNEAL INJURY WHICH MAY RESULT IN PERMANENT IMPAIRMENT OF VISION, EVEN BLINDNESS. **SKIN CONTACT:** CAN CAUSE DEEP AND EXCRUCIATINGLY PAINFUL SKIN BURNS. FINGER NAILS MAY HAVE TO BE DRILLED TO RELIEVE PRESSURE. **INGESTION:** MAY CAUSE GASTROINTESTINAL IRRITATION AND SEVERE BURNS OF THE MOUTH AND THE THROAT. **INHALATION:** IRRITATION OF THE NOSE, THROAT AND RESPIRATORY TRACT AT LOW PPM's.
CARCINOGENICITY, REPRODUCTIVE EFFECTS, TERATOGENICITY, MUTAGENICITY: NO REPORTED EFFECTS UNDER NORMAL CONDITIONS OF USE.
TARGET ORGANS: N.A.V.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: N.A.V.
EFFECTS OF CHRONIC EXPOSURE TO PRODUCT: FLUOROSIS.
SENSITIZATION TO PRODUCT: NO **SYNERGISTIC PRODUCTS:** N.A.V.

SECTION VII - PREVENTIVE MEASURES

RESPIRATORY PROTECTION AND TYPE: NIOSH APPROVED RESPIRATOR FOR ACID MIST AND VAPORS.
ENGINEERING CONTROLS: MECHANICAL VENTILATION IN CONFINED AREAS TO MAINTAIN AIR QUALITY BELOW TLV.
PROTECTIVE GLOVES: PVC, VINYL, NEOPRENE
EYE PROTECTION: FACE SHIELD OR SAFETY GLASSES
FOOT WEAR: SAFETY SHOES OR RUBBER BOOTS
OTHER SPECIFIC CLOTHING OR EQUIPMENT REQUIRED: VINYL PANTS & JACKET AND EYE BATH STATION
LEAK AND SPILL PROCEDURE: FLUSH WITH WATER INTO SANITARY SEWER AND VENTILATE WETNESS. FOR LARGE SPILLS, DIKE AND PUMP INTO DOT APPROVED CONTAINERS WITH ADEQUATE VENTILATION.
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: INDOORS AT AMBIENT TEMPERATURES
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. APPLY 1-2 DROPS OF 0.5 % PONTICAINE HYDROCHLORIDE. (WINTHROP LABORATORIES) GET MEDICAL ATTENTION IMMEDIATELY.
INHALATION: MOVE PATIENT TO FRESH AIR. IF BREATHING HAS STOPPED, OR IS LABOURED, GIVE OXYGEN OR ARTIFICIAL RESPIRATION. NO MOUTH TO MOUTH CONTACT CONTAMINATION. GET MEDICAL ATTENTION IMMEDIATELY.
SKIN CONTACT: REMOVE CONTAMINATED CLOTHING. FLUSH WITH COLD WATER FOR 15 MINUTES. APPLY 2.5 % CALCIUM GLUCONATE JELLY SOAK AFFECTED AREA IN 0.13 % ICED AQUEOUS ZEPHIRAN CHLORIDE SOLUTION CHANGING COMPRESSES EVERY 2 MINUTES. GET MEDICAL ATTENTION.
INGESTION: DO NOT GIVE ANYTHING BY MOUTH IF UNCONCIOUS. RINSE MOUTH WITH WATER. DO NOT INDUCE VOMITING. HAVE VICTIM DRINK 300ml OF A 10% CALCIUM GLUCONATE TO NEUTRALIZE AND DILUTE ACID. IF VOMITING OCCURS, REPEAT DOSAGE. PREVENT ASPIRATION INTO LUNGS. OBTAIN MEDICAL ATTENTION IMMEDIATELY.
SOURCES USED: SUPPLIER MSDS

SECTION IX - PREPARATION DATA

PREPARED BY: HEALTH AND SAFETY COMMITTEE **DATE:** 06 JAN 2009
CONTACT: AL STRUTHMANN (Hon. B.Sc.) **TEL:** (519) 454-4370
 CANADA & USA TOLL FREE 1-888-658-5515 **FAX:** (519) 454-4362

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

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