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TETRA-CHEM INTERNATIONAL INC.

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Chem Wash
HYDRO-TEK 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:

T C I 5 2 5 H . D .TM

PROCESS IDENTIFIER:

**MICRO-ETCH ALUMINUM BRIGHTENER
AND STAINLESS STEEL CLEANER**

PRODUCT PRESENTATION:

TCI 525 H.D. is a blue liquid concentrate of environmentally friendly dilute acids with powerful biodegradable surface active agents. It is designed for the retention and restoration of high optical reflectivity and passivation of stainless steel, as well brightening of aluminum metal surfaces.

PROCESS INTRODUCTION:

Formula **TCI 525 H.D.** is designed to effectively remove residual **dirt, oils, black welding & diesel soot, rust & oxidation on painted surfaces, smut, atmospheric contamination** on fiberglass and painted siding, corrosion & oxide films from aluminum and stainless steel surfaces.

PROCESS SPECIFICITY:

TCI 525 H.D. is applied as a light mist to the surface to be cleaned using the Manufacturer's approved Chemical Applicator Manifold System (SEE BROCHURE). This product is designed for cleaning manufactured products such as eg. MOTOR HOMES, RV'S, HORSE TRAILERS, CATTLE POTS, RECYCLING TRUCKS, FEED CARRIERS, SEMI DUMPS, BULK CARRIERS (MILK, FLOUR, CEMENT, PETROLEUM etc.) WHEELS and FUEL TANKS at the maintenance facility of the owner or fleet operators

PRODUCT APPLICATION PROCEDURE:

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 525 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 unto the metal surface and have the PRESSURE WASHER ready for rinsing. Apply the chemical solution as a spray to the entire aluminum 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 minute chemical exposure time. Exposure time is directly proportional to soil thickness. Brushing is optional.

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**

Rinse the section with high pressure (COLD) 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. When the entire unit is complete, start power washing in the same pattern as the chemical application. If need be re-apply **TCI 525 H.D.** for a second time as a thin film to the entire aluminum surfaces. This will produce an even satin finish. As the new aluminum surface is now exposed to the air it will form a natural aluminum oxide film protecting it against pit corrosion. Accessories on finished products, such as light assemblies, reflectors, 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. Glass should be protected from chemical exposure by wetting the surface and immediately rinsing with water. This process does not affect painted surfaces or glass and mirrors as long as the chemical solution does not dry. Unprotected steel surfaces are prone to flash rusting and should be protected with a protective oil or repainted.



Compliments of Westcan
Edmonton, AB



PACKAGING: 005, 055, 330 USgal

**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 5 2 5 H. D.**
PRODUCT USE: **MICRO-ETCH ALUMINUM CLEANER; STAINLESS STEEL, OXIDE, RUST (IRON OXIDE), OIL, DIRT, GRIME AND ROAD FILM REMOVAL**
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	5-10
b) HYDROGEN FLUORIDE	7664-39-3	5-10

(SPECIES - ROUTE) LD₅₀ LD₅₀
a) (RAT - oral): 1530mg/kg N.AV.
b) N.AV. (MONKEY - inhalation): (4320ppm, 1hr)

SECTION III - PHYSICAL DATA

PHYSICAL STATE: SOLID ☐ LIQUID ☒ GAS ☐

ODOR AND APPEARANCE: **ACIDIC IRRITATING ODOR, CLEAR BLUE LIQUID**

BOILING POINT: **> 100 °C or 212 °F**
FREEZING POINT: **< - 10 °C or 14 °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.AV.**
DENSITY (g/ml): **1.2**
OIL / WATER DISTRIBUTION COEFF.: **N.AV.**
SOLUBILITY IN WATER: **COMPLETE**
EVAPORATION RATE (n-BUTYL ACETATE=1): **N.AP.**

SECTION IV - FIRE AND EXPLOSION HAZARD

FLAMMABILITY: YES ☐ NO ☒

UNDER WHAT CONDITIONS:

TDG FLAMMABILITY CLASSIFICATION: **N.AP.**
AUTO-IGNITION TEMPERATURE: **N.AP.**
FLASH POINT: **NONE** METHOD USED: **TOC/CCC**
FLAMMABLE LIMITS: LE L (% BY VOLUME): **N.AP.**
UEL (% BY VOLUME): **N.AP.**

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.AP.**
EXPLOSION DATA-SENSITIVITY TO MECHANICAL IMPACT: **N.AP.**
SENSITIVITY TO STATIC DISCHARGE: **N.AP.**

SECTION V - REACTIVITY DATA

STABILITY: UNSTABLE ☐ STABLE ☒

INCOMPATIBILITY TO OTHER SUBSTANCES: **MILD STEEL, CARBIDE, GLASS, SILICA, STRONG ALKALIES, STRONG OXIDIZING AND REDUCING AGENTS, NATURAL GUM RUBBER AND LEATHER.**
CONDITIONS OF REACTIVITY: **DIRECT CONTACT**
HAZARDOUS DECOMPOSITION PRODUCTS: **MAY LIBERATE HF**

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. 3 mg/m³ (STEL) 1 mg/m³
b. 2.5 mg/m³ (STEL)

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.AV.**
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: **N.AV.**
EFFECTS OF CHRONIC EXPOSURE TO PRODUCT: **FLUOROSIS.**
SENSITIZATION TO PRODUCT: **NO** SYNERGISTIC PRODUCTS: **N.AV.**

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, TOXIC, N.O.S. CLASS 8 (6.1), UN2922, 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 % PONTOCAINE 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: **03 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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