

MATERIAL SAFETY DATA SHEET

West System Inc.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: WEST SYSTEM® 860 Aluminum Etch - Part B
PRODUCT CODE: 860
CHEMICAL FAMILY: Not applicable.
CHEMICAL NAME: Not applicable.
FORMULA: Not applicable.

MANUFACTURER:
West System Inc.
102 Patterson Ave.
Bay City, MI 48706, U.S.A.
Phone: 866-937-8797 or 989-684-7286
www.westsystem.com

EMERGENCY TELEPHONE NUMBERS:
Transportation
CHEMTREC: 800-424-9300 (U.S.)
703-527-3887 (International)
Non-transportation
Poison Hotline: 800-222-1222

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

HMIS Hazard Rating: **Health - 2** **Flammability - 0** **Physical Hazards - 0**

WARNING. Harmful if swallowed. Possible cancer hazard. Skin and eye irritant. Respiratory tract irritant. Clear, reddish liquid with no odor.

PRIMARY ROUTE(S) OF ENTRY:..... Skin and eye contact.

POTENTIAL HEALTH EFFECTS:

ACUTE INHALATION: Generation of mist not likely when used under normal application. Inhalation of mist, vapors or liquid can cause damage to mucous membranes, ulceration to nasal septum and irritation of the upper respiratory tract.

CHRONIC INHALATION:..... Prolonged or repeated inhalation of mist can cause ulceration to nasal septum. Possible carcinogenic effects.

ACUTE SKIN CONTACT: Can cause irritation and possible burns. Can be absorbed in harmful amounts.

CHRONIC SKIN CONTACT:..... Prolonged or repeated skin contact may cause dermatitis and "chrome sores". Chromic acid may be absorbed through the skin, especially if skin is damaged, causing liver and kidney damage. Possible carcinogenic effects.

EYE CONTACT:..... Can cause irritation, burns and possible tissue damage.

INGESTION:..... Can result in gastrointestinal damage and burns to the digestive tract. May be an aspiration hazard. Chromic acid is considered very toxic.

SYMPTOMS OF OVEREXPOSURE:..... Dermatitis; developing "chrome sores" or ulcers. Irritation to mucous membranes and respiratory tract. Kidney damage.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Asthma, allergies or known sensitization to chromic acid or chromates.

3. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

<u>INGREDIENT NAME</u>	<u>CAS#</u>	<u>CONCENTRATION</u>
Chromic acid	7738-94-5	< 1%
Zirconium fluoride salt	not applicable	< 1%

4. FIRST AID MEASURES

FIRST AID FOR EYES:..... Immediately flush with water for at least 15 minutes. Get prompt medical attention.

FIRST AID FOR SKIN:..... Immediately remove contaminated clothing. Wash with soap and water and rinse thoroughly for several minutes. If wide-spread exposure, soak the affected area for one hour in an iced solution [0.13% Zephiran chloride (30 cc of 17% concentrate per gallon of iced distilled water.)] Get immediate medical attention.

FIRST AID FOR INHALATION:..... Immediately remove to fresh air. Consult a physician if effects occur.

FIRST AID FOR INGESTION:..... If conscious, drink large quantities of water. Do not induce vomiting. May be an aspiration hazard. If vomiting occurs, give more water. Get medical attention.

Note To Physician: Treatment of hypocalcemia associated with fluoride exposure may be corrected by intravenous calcium gluconate or calcium chloride. Treatment of hypomagnesemia may be corrected by intravenous magnesium sulfate.

5. FIRE FIGHTING MEASURES

FLASH POINT:..... 93°C (199.4°F).

EXTINGUISHING MEDIA:..... Water, as required to extinguish surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES:..... Wear self-contained breathing apparatus and full-body protective gear. Clothing contaminated with this product becomes extremely flammable when it dries. In a fire situation, combustion may liberate hydrogen fluoride.

6. ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES:..... Stop leak without additional risk. Wear all appropriate personal protective equipment. Dike to contain spill. Absorb with inert material such as vermiculite or sand. Store cleanup material in suitable container. Flush contaminated area with water.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE (MIN./MAX):..... 32°F (0°C) / 90°F (32°C)

STORAGE:..... Store in cool, dry place. Store away from flammable and oxidizing materials.

HANDLING PRECAUTIONS:..... Avoid all skin and eye contact. Immediately remove and wash contaminated clothing before reuse. Do not breath concentrated vapors or mists from this product. Clothing and other materials wet with this product and allowed to dry become flammable.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION GUIDELINES:..... Chemical splash goggles.

SKIN PROTECTION GUIDELINES:..... Neoprene or polyvinyl gloves; aprons and boots are recommended.

RESPIRATORY/VENTILATION GUIDELINES:..... Local exhaust ventilation. Use NIOSH/MSHA approved respirator as required to keep exposure to chromium below recommended levels if ventilation is not adequate.

ADDITIONAL PROTECTIVE MEASURES:..... Wash thoroughly after handling. Generally speaking, working cleanly and following basic precautionary measures will greatly minimize the potential for harmful exposure to this product under normal use conditions.

OCCUPATIONAL EXPOSURE LIMITS:..... Not established for product as whole. Refer to OSHA's Permissible Exposure Level (PEL) or the ACGIH Guidelines for information on specific ingredients.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM..... Liquid.
COLOR..... Orange.
ODOR..... Odorless.
BOILING POINT..... 212°F.
MELTING POINT/FREEZE POINT..... No data.
pH..... 2 to 3.
SOLUBILITY IN WATER..... Complete.
SPECIFIC GRAVITY..... 1.0 to 1.1
BULK DENSITY..... 8.76 pounds/gallon.
VAPOR PRESSURE..... No data.
VAPOR DENSITY..... No data.
% VOLATILE BY WEIGHT..... No data.

10. STABILITY AND REACTIVITY

STABILITY:..... Stable.

HAZARDOUS POLYMERIZATION:..... Will not occur.

INCOMPATIBILITIES:..... Alkalis, organic materials, oils, greases, paint thinners, and reducing agents and any oxidizable materials.

DECOMPOSITION PRODUCTS:..... May liberate hydrogen fluoride.

11. TOXICOLOGICAL INFORMATION

1. Chromic acid
Oral: Rat LD₅₀: 80 mg/kg.
Inhalation: No data.
Dermal:..... Toxic.

MUTAGENICITY:

No information available for this product. Chromium VI compounds have been mutagenic in bacteria, caused aberrations mammalian cells and have been associated with increased frequencies of chromosome aberrations in lymphocytes in chromate workers.

TERATOGENICITY:

No information available for this product. Chromium VI compounds have caused birth defects and affected fertility in laboratory animals.

CARCINOGENICITY:

NTP..... This product is not identified as a carcinogen, but a component (chromium compounds) is.
IARC This product is not identified as a carcinogen, but a component (chromium compounds) is.
OSHA..... This product is not identified as a carcinogen, but a component (chromium compounds) is.

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA, NTP or IARC.

There is laboratory evidence that aqueous sodium dichromate administered directly into the lung, at the lightest tolerated dose, over the lifetime of rats, causes a significantly increased incidence of lung cancer. It is expected that if chromic acid was tested in the manner as aqueous sodium dichromate, it would give similar response. This is sufficient evidence for the carcinogenicity of chromium and certain chromium compounds both in humans and experimental animals.

References:

NTP (National Toxicology Program), Annual Report on Carcinogens, 1983.
IARC (International Agency for Research on Cancer), Annual Report, 1982.

12. ECOLOGICAL INFORMATION

No specific data available. Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:..... Evaluation of this product using RCRA criteria shows that it is hazardous wasted in its purchased form. It is up to the user to determine proper disposal methods.

This product contains chromium compounds. Waste codes may include D002, D007. Waste treatment and neutralization may be required prior to discharge to sewer.

14. TRANSPORTATION INFORMATION

DOT

D.O.T. SHIPPING NAME: Environmentally hazardous substances, liquid, n.o.s.
TECHNICAL SHIPPING NAME:..... Chromic acid.
D.O.T. HAZARD CLASS: 9.
U.N./N.A. NUMBER:..... UN3082.
PACKING GROUP: III.

IATA

SHIPPING NAME: Environmentally hazardous substances, liquid, n.o.s.
TECHNICAL SHIPPING NAME:..... Chromic acid.
HAZARD CLASS: 9.
U.N. NUMBER:..... UN3082.
PACKING GROUP: III.

15. REGULATORY INFORMATION

OSHA STATUS:..... Irritant; possible carcinogen.

TSCA STATUS:..... All chemicals are listed on TSCA Inventory or otherwise comply with TSCA requirements.

Canada WHIMIS Classification: D2A, D2B

SARA TITLE III:

SECTION 313 TOXIC CHEMICALS This product contains **chromic acid** and is subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

STATE REGULATORY INFORMATION:

The following chemicals are specifically listed or otherwise regulated by individual states. For details on your regulatory requirements you should contact the appropriate agency in your state.

COMPONENT NAME <u>/CAS NUMBER</u>	<u>CONCENTRATION</u>	<u>STATE CODE</u>
Chromic acid 7738-94-5	<1%	NJ, MA, RI, PA, CA ¹

¹: These substances are known to the state of California to cause cancer or reproductive harm, or both.

16. OTHER INFORMATION

REASON FOR ISSUE: Changes made in sections: 3, 7, 11, 14 & 15.
PREPARED BY: G. M. House
APPROVED BY: G. M. House
TITLE: Health, Safety & Environmental Manager
APPROVAL DATE: February 10, 2011
SUPERSEDES DATE: January 3, 2008
MSDS NUMBER: 860B-11a

Note: The Hazardous Material Indexing System (HMIS), cited in the Emergency Overview of Section 3, uses the following index to assess hazard rating: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; and 4 = Severe.

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