

Material Safety Data Sheet

PRODUCT NAME: ChromeFX B2 Super Concentrate
PRODUCT CODE: B2

DATE: July 25, 2007

SECTION I – MANUFACTURER IDENTIFICATION

MANUFACTURED FOR : ALSA CORPORATION
2640 E. 37th Street
Vernon, CA 90058
Tel: (323)581-5200
Fax: (323)589-4400

Infotrac Chemical Emergency Response: 800-535-5053/352-323-3500

SECTION II – COMPOSITION/INFORMATION ON INGREDIENTS

NAMES	CAS NUMBER	EINECS-No	CONC
Hydrazine, as hydrate	302-01-2	206-114-09	20-50
Water	7732-18-5	231-791-2	50-80

SECTION III – HAZARDS IDENTIFICATION OF THE PREPARATION

Inhalation Health Risks and Symptoms of Exposure: Acute-irritation to respiratory tract. Chronic-liver and kidney damage, hemolysis of red blood cells and pneumonia.

Skin and Eye Contact Health Risks and Symptoms of Exposure: Skin-may cause dermatitis, absorption may lead to liver and kidney damage and hemolysis of red blood cells may result in fatal or near fatal consequences due to hepatic effects, central nervous system effects or other system effects. Eye- severe irritation, tearing redness and blurred vision. Temporary blindness up to 24 hours after direct exposure.

Ingestion Health Risks and Symptoms of Exposure: Irritates mucous membranes, toxic by ingestion. Fatal or near fatal consequences to hepatic, nervous system, or other system effects.

Health Hazards (Acute and Chronic): Acute- irritation, dermatitis, redness, swelling and temporary blindness. Chronic- liver and kidney damage; hemolysis of the red blood cells

Carcinogenicity: NTP? YES IARC Monographs? YES

Medical Conditions Generally Aggravated By Exposure: **Preexisting eye, skin, or respiratory tract conditions; impaired liver and/or kidney function.**

SECTION IV – FIRST AID MEASURES

Inhalation: Persons acutely overexposed to hydrazine vapors should be removed from the contaminated environment as quickly as possible by properly protected rescue personnel. Trained persons can administer oxygen to ease breathing and provide artificial respirations as necessary. Consult a physician immediately.

Eye Contact: Flush the eyes with large amounts of running water at room temperature for at least 15 minutes and see a physician, preferably an ophthalmologist, immediately.

Skin Contact: Wash immediately with cool, running water while removing contaminated clothing and shoes. Avoid using hot water and hard rubbing. Consult a physician, particularly if exposure is extensive, prolonged, or irritation persists after washing. Wash contaminated clothing thoroughly before reuse.

Ingestion: Accidental ingestion of hydrazine solutions should be treated by taking large amounts of water. Never give anything by mouth to an unconscious person. Inducing vomiting is indicated to conscious patients, especially when there has been ingestion within the last thirty minutes. A physician should be contacted immediately.

Special Precautions/Procedures: There are no definitive antidotes for hydrazine exposure. Physicians should treat exposed persons symptomatically. Overexposed persons should be closely observed for symptoms of central nervous system involvement, respiratory irritation, bronchitis or edema, and treat accordingly. Parenteral pyridoxine administration has been used by some physicians to treat patients suffering acute central nervous system effects. (In one reported case, following pyridoxine administration parenterally, there was a rapid reversal of coma in a patient who had been comatose for over 60 hours.)

SECTION V – FIRE-FIGHTING MEASURES

Flash Point: greater than 212° F (100° C)

Flash Point Method: PMCC

Autoignition: greater than 590° F (310° C)

Burning Rate: Not Established

LEL: 4%

UEL: 100%

Extinguishing Media: CO₂ dry chemical, foam; water spray for large fires

Fire-Fighting Instructions: Under fire conditions, hazardous vapors and gases may be emitted. Containers exposed to excessive heat may rupture violently. Use water spray to keep containers cool. Fight fires from a protected area.

Fire-Fighting Equipment: Fire fighters should wear full emergency equipment with self-contained breathing apparatus and full protective clothing.

SECTION VI – ACCIDENTAL RELEASE MEASURES

Spill /Leak Procedures: Use appropriate personal protective equipment. Dilute to approximately 10 times with water. Add sufficient dry commercial calcium hypochlorite (dry chlorine, HTHR, dry bleach) to completely oxidize the hydrazine. Use 7-10 lbs. per pound of hydrazine (1 lb. of 35% hydrazine = .35 lbs. N2H4). Calcium hypochlorite or other oxidizing agents should never be allowed to mix with undiluted hydrazine solutions. The resulting reaction is very vigorous, releasing large amounts of heat and gas. Contaminated surfaces should be treated with household bleach or calcium hypochlorite solution to oxidize the residual hydrazine.

Containment: Contain small spills by diking and digging a containment pit large enough to hold at least 10 times the spill volume. In the event of large spills, contain product, secure area and notify the proper agencies.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

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SECTION VII – HANDLING AND STORAGE

Handling Precautions: When handling, utilize protective clothing and equipment. Do not get in eyes or on skin. Do not breathe vapors or mists. Wash thoroughly after handling.

Storage Requirements: Store in a dry place away from heat (below 122°F /50°C) and away from ignition sources and oxidants, preferably outdoors. Shelter drums stored outdoors from direct sunlight. For indoor storage areas, continuous ventilation should be provided. This product may become electro statically charged during filling and transferring. Make sure equipment is properly bonded and grounded. Store away from food and beverages.

SECTION VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection requirements: Splash goggles or full face shield.

Skin protection requirements: PVC, neoprene or nitrile splash suits, boots and gloves should be worn when spray or splash protection is required.

Ventilation requirements: Use local exhaust or other means to maintain airborne hydrazine concentration below the current Permissible Exposure Limit (1ppm).

Respirator requirements: Whenever the hydrazine levels exceed the current Permissible Exposure Limit (1 ppm), a positive pressure supplied air respirator is recommended.

Additional protective measures: Safety showers and eyewash stations should be readily available. Do not store or transfer hydrazine solutions in open containers. Because hydrazine can be absorbed into the body by all common routes of exposure, protective equipment must be used. Personal protective equipment design and good maintenance practices.

SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless to slightly yellow

Odor: Ammonia like (fishy)

Physical form: Liquid

Vapor Pressure: 15 mbar @ 68° F (20°C)

Vapor Density: 15 mbar @ 68° F (20°C)

Specific Gravity: Approximately 1.021 @ 68° F (20° C)

pH: Greater than 12 @ 350 g/l water @ 68°F (20°C) original solution

Water Solubility: Yes

Boiling Point: Approximately 228.9°F (109°C)

Freezing/Melting Point: Approximately -85°F (-65°C)

% volatile:

SECTION X – STABILITY AND REACTIVITY

Stability: Stable at room temperatures and pressures.

Polymerization: Will not occur.

Chemical Incompatibilities: Brisk or dangerous reactions with strong oxidizers, catalytic metals (Lead, Copper, Zinc, Cadmium, Cobalt, Molybdenum, Gold and Silver) and certain alloys (such as bronze and brass).

Conditions to Avoid: Excessive temperatures

Hazardous Decomposition Products: Under catalytic influences or elevated temperatures, H₂, NH₃, and N₂ and other toxic or flammable nitrogen compounds can be formed. Slow reaction with oxygen from the air is possible at room temperature.

SECTION XI – TOXICOLOGICAL INFORMATION

Acute Toxicity: *Oral LD50*.....Hydrazine Hydrate: 129 mg/kg (Rat). Anhydrous hydrazine: 60 mg/kg (Rat)/ *Dermal* LD50 for hydrazine solution: greater than 200 mg/kg (Rabbit: DOT method); for Hydrazine: 91 mg/kg (Rabbit) *Inhalation* LC50 for anhydrous hydrazine LX50 = 570 ppm (Rat, \$ hours); For aerosols generated from a 64% hydrazine solution, LC50 = 6.5 mg/L (5000 ppm) – the LC50 (1 hour) estimated in terms of hydrazine equivalents, LC50 = 4.2 mg/L (3200 ppm) (1)/ *Eye effects*...irritation / *Skin effects*...Not corrosive (rabbit: DOT protocol.)/ *Sensitization*.....some individuals (humans) have exhibited allergic skin reactions.

Chronic Toxicity: Several studies show increased tumor incidence in mice and rats following long term oral or intra peritoneal administration of hydrazine or its salts. The U.S. Air Force conducted a study concerning the chronic inhalation toxicity of hydrazine. The study concluded that hydrazine is a relatively weak tumorgen able to induce respiratory tumors in a dose related incidence at 1.0 and 5.0 ppm.

Other Toxicity Data: (Mutagenic, Teratogenic, And Reproductive Tests): Hydrazine has demonstrated mutagenic potential in several test systems such as bacteria, phage, higher plants, drosophila, and the host-mediated assay. It was negative in the dominant lethal assay in mice. Dermal contact with hydrazine at a dose causing skin damage and systemic effects has produce embryo lethality in rats.

1 Huntingdon Research Centre, July 1993 (Sponsored by the Chemical Manufacture's Association, CMA).

SECTION XII – ECOLOGICAL INFORMATION

Aquatic Toxicity: Gold orfe (*Leuciscus idus*), LC50 (48 hours): 0.75mg/l. Do not allow to escape in waters, wastewater or soil.

SECTION XIII – DISPOSAL CONSIDERATIONS

Waste Disposal Method: Oxidize or incinerate in accordance with federal state and local environmental control regulations.

SECTION XIV – TRANSPORT INFORMATION

Technical Shipping Name: Reducer #1;U-8

Freight Class Bulk: Corrosive Liquid, NOS Class 3

Freight Class Package: UN1760, PGII

