

MATERIAL SAFETY DATA SHEET

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EMERGENCY ASSISTANCE

CHEMTREC (800) 424-9300. THIS NUMBER IS TO BE USED ONLY IN THE EVENT OF CHEMICAL EMERGENCIES INVOLVING A SPILL, LEAK, FIRE EXPOSURE, OR ACCIDENT INVOLVING CHEMICALS.

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MSDS # 109

HMIS CODES

HEALTH : 3
FLAMMABILITY : 0
REACTIVITY : 0

HAZARD RATINGS

0 = MINIMAL
1 = SLIGHT
2 = MODERATE
3 = SERIOUS
4 = SEVERE

SECTION I PRODUCT IDENTIFICATION AND PHYSICAL DATA

PRODUCT CLASS	: PERMA-CAST SIERRA STAIN	% VOLATILE BY WEIGHT:	NIL
PRODUCT NAME	: BAS 13 VERDIGRIS		
CHEMICAL NAME	: INORGANIC ACID	U.N. LABEL	: CORROSIVE
CHEMICAL FAMILY	: INORGANIC SALTS / ACID	U.N. HAZARD CLASS	: 8 – CORROSIVE
EVAPORATION RATE	: SLOWER (BUTYL ACETATE = 1)	UN. SHIPPING NAME	: CORROSIVE LIQUID N.O.S. (CONTAINS COPPER CHLORIDE, CHROMIC CHLORIDE)
SPECIFIC GRAVITY	: 1.30 ± .03	UN. ID NUMBER	: U.N. 1760
APPEARANCE AND ODOR	: DARK LIQUID WITH SHARP PUNGENT ODOR	PACKAGING GROUP	: II

SECTION II HAZARDOUS INGREDIENTS

THE PRECISE COMPOSITION OF THIS PRODUCT IS PROPRIETARY INFORMATION. A MORE COMPLETE DISCLOSURE CAN BE PROVIDED IN THE EVENT OF A MEDICAL EMERGENCY.

<u>INGREDIENTS (CAS #)</u>	<u>PERCENT BY WEIGHT*</u>	<u>ACGIH/TLV</u>	<u>OSHA/PEL</u>
CUPRIC CHLORIDE (7447-39-4)	MAJOR	1 mg / m ³	1 mg / m ³
HYDROCHLORIC ACID (7647-01-0)	TRACE	7 mg / m ³	7 mg / m ³
CHROMIC CHLORIDE (50925-66-1)	TRACE	5 mg / m ³	NOT ESTAB.

* MAJOR = OVER 25% , MINOR = 6 – 25% , TRACE = UNDER 6% , RESIDUE = UNKNOWN % RESIDUE POSSIBLE

SECTION III FIRE AND EXPLOSION HAZARD DATA

OSHA FLAMMABILITY : NOT REGULATED
FLASH POINT * : NOT ESTABLISHED (* VALUE FOR MATERIAL OF LOWEST FLASH POINT INGREDIENT)
EXTINGUISHING MEDIA : ALCOHOL , DRY CHEMICAL , WATER FOG AND FOAM .
UNUSUAL FIRE AND EXPLOSION HAZARDS : RELEASES HYDROGEN CHLORIDE GAS WHEN HEATED . ALSO REACTS WITH MOST METALS
TO RELEASE HYDROGEN GAS WHICH CAN FORM EXPLOSIVE MIXTURES WITH AIR .
SPECIAL FIRE FIGHTING PROCEDURES : WEAR SELF CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN PRESSURE
DEMAND OR OTHER POSITIVE PRESSURE MODE AND FULL BODY PROTECTIVE CLOTHING WHEN FIGHTING FIRE .

SECTION IV HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE :

ACUTE

INGESTION: CAN CAUSE SEVERE TISSUE DESTRUCTION. KIDNEY FAILURE MAY FOLLOW AND RESULT IN DEATH.
INHALATION: TLV AND OSHA GUIDE IS 5ppm CEILING FOR HYDROGEN CHLORIDE; SEVERELY IRRITATING.
SKIN ABSORPTION: MASSIVE OVEREXPOSURE COULD LEAD TO KIDNEY FAILURE AND DEATH.
EYE CONTACT: RAPIDLY CAUSES SEVERE BURNS, POSSIBLE WITH PERMANENT IMPAIRMENT OF VISION.

CHRONIC

NO SPECIFIC INFORMATION AVAILABLE.

EMERGENCY AND FIRST AID PROCEDURES:

EYE CONTACT: IMMEDIATE AND CONTINUOUS IRRIGATION WITH FLOWING WATER AT LEAST 30 MINUTES IS IMPERATIVE.

SKIN CONTACT: SKIN BURN LIKELY. IMMEDIATE, CONTINUOUS, AND THOROUGH WASHING IN FLOWING WATER FOR 30 MINUTES IS INDICATED. REMOVE CLOTHING IMMEDIATELY. DESTROY CONTAMINATED SHOES.

INGESTION: CORROSIVE. **DO NOT INDUCE VOMITING.** GIVE LARGE AMOUNTS OF WATER OR MILK IF AVAILABLE AND IMMEDIATELY TRANSPORT TO A MEDICAL FACILITY.INHALATION: REMOVE TO FRESH AIR IF EFFECTS OCCUR. **CALL PHYSICIAN AND/OR TRANSPORT TO MEDICAL FACILITY.****NOTE TO PHYSICIAN:** MASSIVE OVEREXPOSURE TO SOLUTIONS OF THIS PRODUCT COULD LEAD TO KIDNEY FAILURE AND DEATH.

SECTION V REGULATORY INFORMATION

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65):

THIS PRODUCT MAY CONTAIN A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, OR BIRTH DEFECTS, AND/OR OTHER REPRODUCTIVE HARM.

CALIFORNIA SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT VOLATILE ORGANIC COMPOUNDS (SCAQMD) :
NOT APPLICABLE.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA TITLE III SECTION 313) :

THIS PRODUCT CONTAINS HYDROCHLORIC ACID AND IS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT OF 1986 AND OF 40 CFR. THIS INFORMATION MUST BE INCLUDED IN MATERIAL SAFETY DATA SHEETS THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

OTHER INFORMATION:

ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY.

SECTION VI REACTIVITY DATA

STABILITY: STABLE.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

CONDITIONS TO AVOID: AVOID CONTACT WITH STRONG ALKALIES, ALKALI METALS.

MATERIALS TO AVOID:

HAZARDOUS DECOMPOSITION PRODUCTS: MAY EVOLVE HIGHLY TOXIC CHLORIDE FUMES.

SECTION VII SPILL OR LEAK PROCEDURE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SHOVEL OR SOAK UP SPILLED MATERIAL INTO A PLASTIC CONTAINER AND REUSE OR REMOVE TO APPROVED CHEMICAL WASTE DISPOSAL AREA. FLUSH AREA WITH WATER, DIRECTING RUNOFF TO APPROPRIATE TREATMENT OR DISPOSAL CONTAINER.

NEVER FLUSH TO SEWER. MAJOR SPILLS SHOULD BE REPORTED ACCORDING TO REGULATIONS.

WASTE DISPOSAL METHOD:

DISPOSE OF WASTE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

SECTION VIII SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION:

WHENEVER EXPOSURE TO VAPOR/MIST IS LIKELY UNLESS LEVELS ARE BELOW APPLICABLE LIMITS, WEAR A PROPERLY FITTED NIOSH/MSHA APPROVED RESPIRATOR. FOR EMERGENCIES, A SELF-CONTAINED BREATHING APPARATUS OR FULL FACE RESPIRATOR IS RECOMMENDED.

VENTILATION:

VENTILATION MUST BE SUFFICIENT TO CONTROL VAPORS. BREATHING OF VAPORS MUST BE AVOIDED. THIS MATERIAL SHOULD BE CONFINED AS FAR AS POSSIBLE WITHIN SEALED OR COVERED EQUIPMENT IN WHICH CASE NORMAL VENTILATION SHOULD BE ADEQUATE. SPECIAL (LOCAL) VENTILATION WILL BE NEEDED IN AREAS WHERE VAPORS ARE EXPECTED TO BE VENTED.

PROTECTIVE GLOVES :

IMPERVIOUS GLOVES, NEOPRENE OR RUBBER.

EYE PROTECTION:

SAFETY EYEWEAR INCLUDING SPLASH GUARDS OR SIDE SHIELDS, CHEMICAL GOGGLES, OR FACE SHIELDS.

OTHER PROTECTIVE EQUIPMENT :

CLEAN, BODY COVERING CLOTHING. FURTHER SAFETY EQUIPMENT (APRON, FOOTWEAR, ETC.) SHOULD BE USED AS NECESSARY TO PREVENT CONTACT WITH MATERIAL.

SECTION IX SPECIAL PRECAUTIONS**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:**

PREVENT ALL SKIN AND EYE CONTACT.
AVOID BREATHING VAPORS.
RE-SEAL PARTIALLY USED CONTAINERS.
ENSURE THAT ALL CONTAINERS ARE PROPERLY LABELLED TO PREVENT ACCIDENTAL INGESTION.
WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES.
OBSERVE CONDITIONS OF GOOD INDUSTRIAL HYGIENE AND SAFE WORKING PRACTICES.
REMOVE AND THOROUGHLY LAUNDER CONTAMINATED CLOTHING BEFORE REUSE.
DISCARD CONTAMINATED SHOES.
STORE UNDER COOL, DRY CONDITIONS AND AWAY FROM OPEN FLAMES AND HIGH TEMPERATURES.

OTHER PRECAUTIONS:

ADDITION TO WATER RELEASE HEAT WHICH CAN RESULT IN VIOLENT FOAMING AND SPATTERING. ALWAYS ADD SLOWLY AND IN SMALL AMOUNTS. NEVER ADD WATER TO ACIDS. ALWAYS ADD ACIDS TO WATER. CONTAINERS TO THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED, SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED.

DISCLAIMER OF LIABILITY

THE INFORMATION IN THIS MSDS WAS OBTAINED FROM SOURCES WHICH WE BELIEVE ARE RELIABLE. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS. THE CONDITIONS OR METHODS OF HANDLING, STORAGE, USE AND DISPOSAL OF THE PRODUCT ARE BEYOND OUR CONTROL AND MAY BE BEYOND OUR KNOWLEDGE. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE, OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.

SUMMARY OF HMIS RATING**I. HEALTH HAZARD RATING**

- 0 MINIMAL HAZARD: NO SIGNIFICANT RISK TO HEALTH.
- 1 SLIGHT HAZARD: IRRITATION OR MINOR REVERSIBLE INJURY POSSIBLE.
- 2 TEMPORARY OR MINOR INJURY MAY OCCUR.
- 3 SERIOUS HAZARD: MAJOR INJURY LIKELY UNLESS PROMPT ACTION IS TAKEN AND MEDICAL TREATMENT IS GIVEN.
- 4 SEVERE HAZARD: LIFE-THREATENING, MAJOR OR PERMANENT DAMAGE MAY RESULT FROM SINGLE OR REPEATED EXPOSURES.

II. FLAMMABILITY HAZARD RATING

- 0 MINIMAL HAZARD: MATERIALS THAT ARE NORMALLY STABLE AND WILL NOT BURN UNLESS HEATED.
- 1 SLIGHT HAZARD: MATERIALS THAT MUST BE PREHEATED BEFORE IGNITION WILL OCCUR. FLAMMABLE LIQUIDS IN THIS CATEGORY WILL HAVE FLASH POINTS (THE LOWEST TEMPERATURE AT WHICH IGNITION WILL OCCUR) AT OR ABOVE 200°F (NFPA CLASS IIIB).
- 2 MODERATE HAZARD: MATERIAL THAT MUST BE MODERATELY HEATED BEFORE IGNITION WILL OCCUR INCLUDING FLAMMABLE LIQUIDS WITH FLASH POINTS AT OR ABOVE 100°F AND BELOW 200°F (NFPA CLASS II & CLASS IIIA).
- 3 SERIOUS HAZARD: MATERIALS CAPABLE OF IGNITION UNDER ALMOST ALL NORMAL TEMPERATURE CONDITIONS, INCLUDING FLAMMABLE LIQUIDS WITH FLASH POINTS BELOW 73°F AND BOILING POINTS ABOVE 100°F AS WELL AS LIQUIDS WITH FLASH POINTS BETWEEN 73°F AND 100°F (NFPA CLASS IB AND IC).
- 4 SEVERE HAZARD: VERY FLAMMABLE GASES OR VERY VOLATILE FLAMMABLE LIQUIDS WITH FLASH POINTS BELOW 73°F AND BOILING POINTS BELOW 100°F (NFPA CLASS IA).

III. REACTIVITY HAZARD RATING

- 0 MINIMAL HAZARD: MATERIALS THAT ARE NORMALLY STABLE, EVEN UNDER FIRE CONDITIONS, AND WILL NOT REACT WITH WATER.
 - 1 SLIGHT HAZARD: MATERIALS THAT ARE NORMALLY STABLE BUT CAN BECOME UNSTABLE AT HIGH TEMPERATURES AND PRESSURES. THESE MATERIALS MAY REACT WITH WATER BUT THEY WILL NOT RELEASE ENERGY VIOLENTLY.
 - 2 MODERATE HAZARD: MATERIALS THAT, IN THEMSELVES, ARE NORMALLY UNSTABLE AND WILL READILY UNDERGO VIOLENT CHEMICAL CHANGE BUT WILL NOT DETONATE. THESE MATERIALS MAY ALSO REACT VIOLENTLY WITH WATER.
 - 3 SERIOUS HAZARD: MATERIALS THAT ARE CAPABLE OF DETONATION OR EXPLOSIVE REACTION BUT REQUIRE A STRONG INITIATING SOURCE OR MUST BE HEATED UNDER CONFINEMENT BEFORE INITIATION; OR MATERIALS THAT REACT EXPLOSIVELY WITH WATER.
 - 4 SEVERE HAZARD: MATERIALS THAT ARE READILY CAPABLE OF DETONATION OR EXPLOSIVE DECOMPOSITION AT NORMAL TEMPERATURES AND PRESSURES.
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