

MATERIAL SAFETY DATA SHEET \*\*\*\*

HIGH SIERRA CHEMICALS  
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Latest Revision Date...03/01/11  
Print Date.....03/16/11  
EMERGENCY PHONE NUMBER: 1-800-424-9300

CITRIC ACID

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SECTION 1 PRODUCT IDENTIFICATION

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PRODUCT NAME OR NUMBER..... CITRIC ACID  
TRADE NAME OR CHEMICAL NAME..... CITRIC ACID  
SYNONYMS..... NONE  
FORMULA..... PROPRIETARY  
CHEMICAL FAMILY..... ACID CLEANER  
MOLECULAR WEIGHT..... NA  
NFPA..... SEE SECTION 7  
HMIS RATING..... SEE SECTION 7

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SECTION 2 HAZARDOUS INGREDIENTS / HAZARD DATA

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<u>CHEMICAL NAME(S)</u>	<u>CAS NUMBER</u>	<u>% WT</u>	<u>TLV-ACGIH</u>	<u>PEL-OSHA</u>	<u>SEC.313</u>	<u>NTP</u>	<u>IARC</u>	<u>PROP.65</u>
2-Hydroxy-1,2,3 Propanetricarb	000077-92-9	<50	5.0 MG/M3	5.0 MG/M3	No	NO	NO	No

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SECTION 3 REGULATORY DATA

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NTP..... NATIONAL TOXICOLOGY PROGRAM  
IARC..... INTERNATIONAL AGENCY FOR RESEARCH ON CANCER  
PROPOSITION 65..... THIS PRODUCT CONTAINS INGREDIBNTS ON  
THE LIST OF PROPOSITION 65.  
STATE OF CALIFORNIA SAFE DRINKING WATER AND  
TOXIC ENFORCMENT ACT OF 1986.  
SECTION 313 SARA TITLE III... THE CHEMICAL(S) MARKED WITH A "YES" ON  
SECTION 313 ARE SUBJECT TO THE REPORTING  
RRQUIREMENTS OF THIS SECTION.

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SECTION 4 PHYSICAL DATA

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BOILING/MELTING POINT @760 mm Hg ≥ 212°F  
pH..... <4.0  
SPECIFIC GRAVITY OR BULK DENSITY 1.220  
SOLUBILITY IN WATER..... SOLUBLE  
APPEARANCE..... CLEAR LIQUID  
ODOR..... NONE

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SECTION 5 FIRE AND EXPLOSION HAZARD DATA

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FLASH POINT °F (Test Method).... N/A  
AUTOIGNITION TEMPERATURE..... N/A  
FLAMMABILITY LIMITS IN AIR (% V) NOT DETERMINED  
EXTINGUISHING MEDIA..... WATER, CARBON DIOXIDE, FOAM, DRY CHEMICAL  
SPECIAL FIRE FIGHTING PROCEDURES WEAR SELF CONTAINED BREATHING APPARATUS  
AND FULL PROTECTIVE EQUIPMENT.  
UNUSUAL FIRE & EXPLOSION HAZARDS EXTINGUISH ALL NEARBY SOURCES OF IGNITION.

CITRIC ACID

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**SECTION 6                    HEALTH HAZARD DATA \* EFFECTS OF OVEREXPOSURE**  
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THRESHOLD LIMIT VALUE.....SEE SECTION 2

SIGN AND SYMPTOMS OF EXPOSURE

EYES.....DIRECT CONTACT WITH CONCENTRATED PRODUCT MAY CAUSE MODERATE IRRITATION AND TEARING.  
SKIN.....REPEATED OR PROLONGED CONTACT MAY CAUSE IRRITATION OR DRYING.  
INHALATION.....BREATHING DUST OR MIST MAY IRRITATE THE NOSE AND THROAT.  
INGESTION.....SWALLOWING LARGE QUANTITIES MAY CAUSE NAUSEA, VOMITING, DIARRHEA AND ABDOMINAL PAIN.  
CHRONIC OVEREXPOSURE.....NONE KNOWN

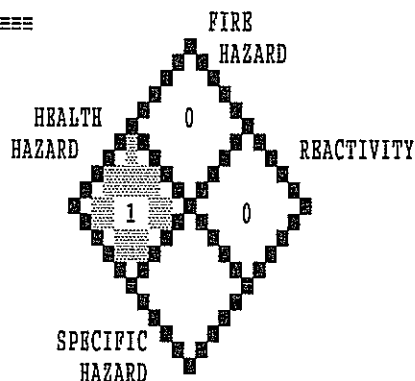
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**SECTION 7                    EMERGENCY AND FIRST AID PROCEDURES**  
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INHALATION...REMOVE VICTIM TO FRESH AIR. IF BREATHING IS DIFFICULT, ASSIST BREATHING. SEEK MEDICAL HELP.  
EYE CONTACT...IMMEDIATELY FLUSH EYES WITH LARGE QUANTITIES OF WATER. REMOVE ANY CONTACT LENSES AND CONTINUE  
                  FLUSH WITH WATER FOR AT LEAST 15 MINUTES. CONTACT A PHYSICIAN.  
SKIN CONTACT..IMMEDIATELY WASH SKIN WITH LARGE QUANTITIES OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING  
                  AND FOOTWEAR. GET MEDICAL ATTENTION. WASH CLOTHING BEFORE REUSE.  
INGESTION....NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. DO NOT INDUCE VOMITING. GIVE LARGE  
                  QUANTITIES OF WATER. GET MEDICAL ATTENTION IMMEDIATELY.

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**SECTION 8                    HMIS RATING SYSTEM**  
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NFPA

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HMIS RATING

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HEALTH HAZARD.....:1  
FIRE HAZARD.....:0  
REACTIVITY.....:0  
PERSONAL PROTECTION...:SEE SECTION 10

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**SECTION 9                    REACTIVITY DATA**  
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PRODUCT STABILITY..... STABLE  
Conditions to Avoid.....  
CHEMICAL INCOMPATIBILITY..... STRONG ACID, ACID VAPOR. MAY PRODUCE  
  CARBON DIOXIDE, CARBON MONOXIDE.  
HAZARDOUS DECOMPOSITION PRODUCTS  
HAZARDOUS POLYMERIZATION..... WILL NOT OCCUR  
Conditions to Avoid..... EXTREME HEAT, SPARK, OPEN FLAME  
CORROSIVE TO METAL..... NO  
OXIDIZER..... NO

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**SECTION 10                  SPECIAL PROTECTION INFORMATION**  
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RESPIRATORY PROTECTION.....NOT NEEDED

VENTILATION:

LOCAL EXHAUST.....NEEDED

CITRIC ACID

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SECTION 10

SPECIAL PROTECTION INFORMATION

CONT'D  
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PROTECTIVE CLOTHING.....SAFETY GLASSES, NEOPRENE OR RUBBER GLOVES.

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SECTION 11

ENVIRONMENTAL DATA

ENVIRONMENTAL TOXICITY DATA..... NONE KNOWN

SPILL OR LEAK PROCEDURES..... CONTAIN, COLLECT AND DISPOSE PER LOCAL,  
STATE AND FEDERAL REGULATIONS.

WASTE DISPOSAL METHOD..... PER LOCAL, STATE AND FEDERAL REGULATIONS.

CONTAINER DISPOSAL..... PER LOCAL, STATE AND FEDERAL REGULATIONS.  
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SECTION 12

SHIPPING DATA

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D.O.T. PROPER SHIPPING NAME..... NONE

HAZARDOUS SUBSTANCE..... NA

D.O.T. HAZARD CLASS..... NOT REGULATED

D.O.T. LABELS REQUIRED..... NONE

D.O.T. PLACARDS REQUIRED..... NONE

POISON CONSTITUENT..... NONE

BILL OF LADING DESCRIPTION..... CITRIC ACID

PACKING GROUP..... NONE

UN/NA CODE..... NON-HAZARDOUS  
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SECTION 13

SUPPLIER INFORMATION

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While High Sierra Chemical believes the statements set forth herein are accurate as of the date hereof, High Sierra Chemical makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data is offered solely for your consideration, investigation, and verification.