24-HOUR EMERGENCY TELEPHONE -- (908) 859-2151

CHEMTREC # (800) 424-9300 -- NATIONAL RESPONSE CENTER # (800) 424-8802

A7608 -03

ASCORBIC ACID

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EFFECTIVE: 01/04/94

ISSUED: 01/15/94

J.T.BAKER INC., 222 RED SCHOOL LANE, PHILLIPSBURG, NJ 08865

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SECTION I - PRODUCT IDENTIFICATION

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PRODUCT NAME: ASCORBIC ACID

COMMON SYNONYMS: L-ASCORBIC ACID; VITAMIN C; L-3-KETOTHREOHEXURONIC ACID

LACTONE

CHEMICAL FAMILY: CARBOHYDRATES AND POLYSACCHARIDES

FORMULA: C6H8O6

FORMULA WT.: 176.12

CAS NO.:

50-81-7

NIOSH/RTECS NO.: CI7650000

PRODUCT USE: LABORATORY REAGENT

PRODUCT CODES: B581,0936,0938,0937

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#### PRECAUTIONARY LABELING

\_\_\_\_\_\_

BAKER SAF-T-DATA\* SYSTEM

HEALTH - 1 SLIGHT FLAMMABILITY - 1 SLIGHT REACTIVITY - 0 NONE CONTACT - 1 SLIGHT

### LABORATORY PROTECTIVE EQUIPMENT

GOGGLES; LAB COAT

#### U.S. PRECAUTIONARY LABELING

DURING USE AVOID CONTACT WITH EYES, SKIN, CLOTHING. WASH THOROUGHLY AFTER HANDLING. WHEN NOT IN USE KEEP IN TIGHTLY CLOSED CONTAINER.

## INTERNATIONAL LABELING

AVOID CONTACT WITH EYES. AFTER CONTACT WITH SKIN, WASH IMMEDIATELY WITH PLENTY OF WATER. KEEP CONTAINER TIGHTLY CLOSED.

SAF-T-DATA\* STORAGE COLOR CODE: ORANGE (GENERAL STORAGE)

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SECTION II - COMPONENTS

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COMPONENT ASCORBIC ACID CAS NO. 50-81-7

WEIGHT %

OSHA/PEL

ACGIH/TLV

99-100 N/E

SECTION III - PHYSICAL DATA

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BOILING POINT: N/A

VAPOR PRESSURE (MMHG): N/A

MELTING POINT: 191 C (375 F)

(AT 760 MM HG)

VAPOR DENSITY (AIR=1): N/A

SPECIFIC GRAVITY: 1.65

(H2O=1)

EVAPORATION RATE: N/A

SOLUBILITY (H20): APPRECIABLE (>10%)

% VOLATILES BY VOLUME: 0

(21 C)

PH: N/A

ODOR THRESHOLD (P.P.M.): N/A

PHYSICAL STATE: SOLID

COEFFICIENT WATER/OIL DISTRIBUTION: N/A

APPEARANCE & ODOR: WHITE CRYSTALS OR POWDER. ODORLESS.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

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FLASH POINT (CLOSED CUP): N/A

AUTOIGNITION TEMPERATURE: N/A

FLAMMABLE LIMITS: UPPER - N/A

LOWER - N/A

FIRE EXTINQUISHING MEDIA

USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE.

SPECIAL FIRE-FIGHTING PROCEDURES

FIREFIGHTERS SHOULD WEAR PROPER PROTECTIVE EQUIPMENT AND SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN POSITIVE PRESSURE MODE.

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ASCORBIC ACID

DACE.

518 MG/KG

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SECTION IV - FIRE AND EXPLOSION HAZARD DATA (CONTINUED)

SECTION IV - FIRE AND EXPLOSION HAZARD DATA (CONTINUED)

UNUSUAL FIRE & EXPLOSION HAZARDS
NONE IDENTIFIED.

TOXIC GASES PRODUCED

CARBON MONOXIDE, CARBON DIOXIDE

EXPLOSION DATA-SENSITIVITY TO MECHANICAL IMPACT NONE IDENTIFIED.

EXPLOSION DATA-SENSITIVITY TO STATIC DISCHARGE NONE IDENTIFIED.

SECTION V - HEALTH HAZARD DATA

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THRESHOLD LIMIT VALUE (TLV/TWA): NOT ESTABLISHED

SHORT-TERM EXPOSURE LIMIT (STEL): NOT ESTABLISHED

PERMISSIBLE EXPOSURE LIMIT (PEL): NOT ESTABLISHED

TOXICITY OF COMPONENTS

INTRAVENOUS MOUSE LD50 FOR ASCORBIC ACID

CARCINOGENICITY: NTP: NO IARC: NO Z LIST: NO OSHA REG: NO

CARCINOGENICITY
NONE IDENTIFIED.

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REPRODUCTIVE EFFECTS
NONE IDENTIFIED.

EFFECTS OF OVEREXPOSUR

INHALATION: NONE IDENTIFIED

SKIN CONTACT: NONE IDENTIFIED

EYE CONTACT: NONE IDENTIFIED

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SECTION V - HEALTH HAZARD DATA (CONTINUED)

SKIN ABSORPTION: NONE IDENTIFIED

INGESTION: NONE IDENTIFIED

CHRONIC EFFECTS: NONE IDENTIFIED

TARGET ORGANS

NONE IDENTIFIED

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

NONE IDENTIFIED

PRIMARY ROUTES OF ENTRY

NONE INDICATED

EMERGENCY AND FIRST AID PROCEDURES

INGESTION: IF SWALLOWED AND THE PERSON IS CONSCIOUS, IMMEDIATELY GIVE

LARGE AMOUNTS OF WATER. GET MEDICAL ATTENTION.

IF A PERSON BREATHES IN LARGE AMOUNTS, MOVE THE EXPOSED INHALATION:

PERSON TO FRESH AIR.

SKIN CONTACT: IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH PLENTY OF

SOAP AND WATER FOR AT LEAST 15 MINUTES.

EYE CONTACT: IN CASE OF EYE CONTACT, IMMEDIATELY FLUSH WITH PLENTY OF

WATER FOR AT LEAST 15 MINUTES.

SARA/TITLE III HAZARD CATEGORIES AND LISTS

ACUTE: NO CHRONIC: NO FLAMMABILITY: NO PRESSURE: NO REACTIVITY: NO

EXTREMELY HAZARDOUS SUBSTANCE: NO

CERCLA HAZARDOUS SUBSTANCE:

SARA 313 TOXIC CHEMICALS: NO

TSCA INVENTORY: YES

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SECTION VI - REACTIVITY DATA

SECTION VI - REACTIVITI DATA

STABILITY: STABLE HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID: AIR, LIGHT

INCOMPATIBLES: STRONG OXIDIZING AGENTS

DECOMPOSITION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE

ADDITION AND ADDITION DESCRIPTIONS

SECTION VII - SPILL & DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN THE EVENT OF A SPILL OR DISCHARGE
WEAR SUITABLE PROTECTIVE CLOTHING. CAREFULLY SWEEP UP AND REMOVE.

DISPOSAL PROCEDURE

DISPOSE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT

SECTION VIII - INDOSTRIAL PROTECTIVE EQUIPMENT

VENTILATION: USE ADEQUATE GENERAL OR LOCAL EXHAUST VENTILATION TO

KEEP FUME OR DUST LEVELS AS LOW AS POSSIBLE.

RESPIRATORY PROTECTION: NONE REQUIRED WHERE ADEQUATE VENTILATION CONDITIONS

EXIST. IF AIRBORNE CONCENTRATION IS HIGH, USE AN

APPROPRIATE RESPIRATOR OR DUST MASK.

EYE/SKIN PROTECTION: SAFETY GOGGLES, PROPER GLOVES ARE RECOMMENDED.

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SECTION IX - STORAGE AND HANDLING PRECAUTIONS

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SAF-T-DATA\* STORAGE COLOR CODE: ORANGE (GENERAL STORAGE)

STORAGE REQUIREMENTS

KEEP CONTAINER TIGHTLY CLOSED. SUITABLE FOR ANY GENERAL CHEMICAL STORAGE AREA. STORE IN LIGHT-RESISTANT CONTAINERS.

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SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION

DOMESTIC (D.O.T.)

PROPER SHIPPING NAME: CHEMICALS, N.O.S. (NON-REGULATED)

INTERNATIONAL (I.M.O.)

PROPER SHIPPING NAME: CHEMICALS, N.O.S. (NON-REGULATED)

MARINE POLLUTANTS: NO

AIR (I.C.A.O.)

PROPER SHIPPING NAME: CHEMICALS, N.O.S. (NON-REGULATED)

U.S. CUSTOMS HARMONIZATION NUMBER: 29362700004

NOTE: WHEN HANDLING LIQUID PRODUCTS, SECONDARY PROTECTIVE CONTAINERS MUST BE USED FOR CARRYING.

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-N/A = NOT APPLICABLE, OR NOT AVAILABLE;

N/E = NOT ESTABLISHED. -

THE INFORMATION IN THIS MATERIAL SAFETY DATA SHEET MEETS THE REQUIREMENTS OF THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ACT AND REGULATIONS PROMULGATED THEREUNDER (29 CFR 1910.1200 ET. SEQ.) AND THE CANADIAN WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. THIS DOCUMENT IS INTENDED ONLY AS A GUIDE TO THE APPROPRIATE PRECAUTIONARY HANDLING OF THE MATERIAL BY A PERSON TRAINED IN, OR SUPERVISED BY A PERSON TRAINED IN, CHEMICAL HANDLING. THE USER IS RESPONSIBLE FOR DETERMINING THE PRECAUTIONS AND DANGERS OF THIS CHEMICAL FOR HIS OR HER PARTICULAR APPLICATION. DEPENDING ON USAGE, PROTECTIVE CLOTHING INCLUDING EYE AND FACE GUARDS AND RESPIRATORS MUST BE USED TO AVOID CONTACT WITH MATERIAL OR BREATHING CHEMICAL VAPORS/FUMES.

EXPOSURE TO THIS PRODUCT MAY HAVE SERIOUS ADVERSE HEALTH EFFECTS. THIS CHEMICAL MAY INTERACT WITH OTHER SUBSTANCES. SINCE THE POTENTIAL USES ARE SO VARIED, BAKER CANNOT WARN OF ALL OF THE POTENTIAL DANGERS OF USE OR INTERACTION WITH OTHER CHEMICALS OR MATERIALS. BAKER WARRANTS THAT THE CHEMICAL MEETS THE SPECIFICATIONS SET FORTH ON THE LABEL.

BAKER DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR PURPOSE.

THE USER SHOULD RECOGNIZE THAT THIS PRODUCT CAN CAUSE SEVERE INJURY AND EVEN DEATH, ESPECIALLY IF IMPROPERLY HANDLED OR THE KNOWN DANGERS OF USE ARE NOT HEEDED. READ ALL PRECAUTIONARY INFORMATION. AS NEW DOCUMENTED GENERAL SAFETY INFORMATION BECOMES AVAILABLE, BAKER WILL PERIODICALLY CONTINUED ON PAGE: 7

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REVISE THIS MATERIAL SAFETY DATA SHEET.

NOTE: CHEMTREC, CANUTEC, AND NATIONAL RESPONSE CENTER EMERGENCY TELEPHONE NUMBERS ARE TO BE USED ONLY IN THE EVENT OF CHEMICAL EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT INVOLVING CHEMICALS. ALL NON-EMERGENCY QUESTIONS SHOULD BE DIRECTED TO CUSTOMER SERVICE (1-800-JTBAKER) FOR ASSISTANCE.

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APPROVED BY QUALITY ASSURANCE DEPARTMENT.