

BIO BASIC INC.

160 TORBAY ROAD MARKHAM ONTARIO L3R 1G6 CANADA
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MATERIAL SAFETY DATA SHEET
REQUIRED UNDER SAFETY AND HEALTH REGULATION FOR SHIP REPAIRING

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ADDRESS 160 TORBAY ROAD MARKHAM ONTARIO L3R 1G6 CANADA

DATE PREPARED: 1-2-98

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SECTION 1. ----- CHEMICAL IDENTIFICATION-----

CODE#: DB0035
NAME: CITRIC ACID, TRISODIUM DIHYDRATE

SECTION 2. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

CAS #: 6132-04-03
MF: NA3C6H5O7.2H2O
SYNONYMS
CITNATIN * CITREME * CITROSODINE * CITROSODNA * NATROCITRAL * 1,2,3-
PROPANETRICARBOXYLIC ACID, 2-HYDROXY-, TRISODIUM SALT (9CI) *
TRISODIUM CITRATE *

SECTION 3. ----- HAZARDS IDENTIFICATION -----

THIS MATERIAL IS NOT CONSIDERED HAZARDOUS UNDER 29CFR 1910.1200. AS WITH ALL CHEMICALS EXERCISE CAUTION WHILE HANDLING. IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY. WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES.

SECTION 4. ----- FIRST-AID MEASURES-----

CONTAMINATION OF THE EYES SHOULD BE TREATED BY IMMEDIATE AND PROLONGED IRRIGATION WITH COPIOUS AMOUNTS OF WATER. IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER. IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN. WASH CONTAMINATED CLOTHING BEFORE REUSE.

SECTION 5. ----- FIRE FIGHTING MEASURES -----

EXTINGUISHING MEDIA
CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.
WATER SPRAY.
SPECIAL FIREFIGHTING PROCEDURES
WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

UNUSUAL FIRE AND EXPLOSIONS HAZARDS
THIS MATERIAL, LIKE MOST MATERIALS IN POWDER FORM, IS CAPABLE OF
CREATING A DUST EXPLOSION.

SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----

WEAR RESPIRATOR, CHEMICAL SAFETY GOGGLES, BOOTS AND HEAVY GLOVES.
SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL.
AVOID RAISING DUST.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7. ----- HANDLING AND STORAGE-----

REFER TO SECTION 8.

SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION-----

CHEMICAL SAFETY GOGGLES.
COMPATIBLE CHEMICAL-RESISTANT GLOVES.
NIOSH/MSHA-APPROVED RESPIRATOR.
SAFETY SHOWER AND EYE BATH.
MECHANICAL EXHAUST REQUIRED.
AVOID CONTACT AND INHALATION.
WASH THOROUGHLY AFTER HANDLING.
KEEP CONTAINER CLOSED.
STORE IN A COOL DRY PLACE.

SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES -----

APPEARANCE
POWDER

SECTION 10. ----- STABILITY AND REACTIVITY -----

INCOMPATIBILITIES
BASES
REDUCING AGENTS
OXIDIZING AGENTS
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
TOXIC FUMES OF:
CARBON MONOXIDE, CARBON DIOXIDE

SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

ACUTE EFFECTS
MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION.
MAY CAUSE EYE IRRITATION.
MAY CAUSE SKIN IRRITATION.
RTECS #: GE8300000
CITRIC ACID, TRISODIUM SALT
TOXICITY DATA
IPR-RAT LD50:1548 MG/KG JPETAB 94,65,1948
IPR-MUS LD50:1364 MG/KG JPETAB 94,65,1948
IVN-MUS LD50:170 MG/KG JPETAB 94,65,1948
IVN-RBT LD50:449 MG/KG JPETAB 94,65,1948
TARGET ORGAN DATA
BEHAVIORAL (CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD)
LUNGS, THORAX OR RESPIRATION (CYANOSIS)
GASTROINTESTINAL (CHANGES IN STRUCTURE OR FUNCTION OF SALIVARY GLANDS)

ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

SECTION 12.----- ECOLOGICAL INFORMATION -----

DATA NOT YET AVAILABLE.

SECTION 13.----- DISPOSAL CONSIDERATIONS -----

OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14.----- TRANSPORT INFORMATION -----

NOT REGULATED.

SECTION 15.----- REGULATORY INFORMATION -----

EUROPEAN INFORMATION

CAUTION: SUBSTANCE NOT YET FULLY TESTED.

R: N/A

S: N/A

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK

NOHS 1974: HZD 68905; NIS 165; TNF 38675; NOS 97; TNE 200416

NOES 1983: HZD E0257; NIS 1; TNF 403; NOS 5; TNE 4029; TFE 2015

NOES 1983: HZD 68905; NIS 96; TNF 13473; NOS 105; TNE 301805; TFE 163142

EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, APRIL 1997

R: N/A

S: N/A

SECTION 16.----- OTHER INFORMATION-----

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