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

CHROMIUM POTASSIUM SULFATE, 12-HYDRATE C4367 -03

PAGE: 1

EFFECTIVE: 01/04/94

ISSUED: 01/15/94

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

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME: CHROMIUM POTASSIUM SULFATE, 12-HYDRATE

COMMON SYNONYMS: CHROMIUM (III) POTASSIUM SULFATE, DODECAHYDRATE; CHROME ALUM

CHEMICAL FAMILY: CHROMIUM COMPOUNDS FORMULA: CRK(SO4)2 12H2O

FORMULA WT.: 499.41 CAS NO.: 7788-99-0

NIOSH/RTECS NO.: GB68450000

PRODUCT USE: LABORATORY REAGENT PRODUCT CODES: 1624

PRECAUTIONARY LABELING

BAKER SAF-T-DATA* SYSTEM

HEALTH - 2 MODERATE FLAMMABILITY - 0 NONE REACTIVITY - 0 NONE CONTACT - 1 SLIGHT

LABORATORY PROTECTIVE EQUIPMENT

GOGGLES; LAB COAT

U.S. PRECAUTIONARY LABELING

WARNING

HARMFUL IF SWALLOWED. CAUSES IRRITATION. AVOID CONTACT WITH EYES, SKIN, CLOTHING. KEEP IN TIGHTLY CLOSED CONTAINER. WASH THOROUGHLY AFTER HANDLING.

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)

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

CHROMIUM POTASSIUM SULFATE, 12-HYDRATE C4367 -03 PAGE: 2 ISSUED: 01/15/94 EFFECTIVE: 01/04/94

SECTION II - COMPONENTS

CHROMIUM POTASSIUM SULFATE CAS NO. WEIGHT % OSHA/PEL ACGIH/TLV 7788-99-0 90-100 N/E

SECTION III - PHYSICAL DATA

VAPOR PRESSURE (MMHG): N/A BOILING POINT: N/A

MELTING POINT: 89 C (192 F) VAPOR DENSITY (AIR=1): N/A

(AT 760 MM HG)

SPECIFIC GRAVITY: 1.81 EVAPORATION RATE: N/A

(H20=1)

% VOLATILES BY VOLUME: 0 SOLUBILITY (H20): APPRECIABLE (>10%)

(21 C)

PH: N/A

PHYSICAL STATE: SOLID ODOR THRESHOLD (P.P.M.): N/A

COEFFICIENT WATER/OIL DISTRIBUTION: N/A

APPEARANCE & ODOR: DARK RED-VIOLET CRYSTALS.

______ SECTION IV - FIRE AND EXPLOSION HAZARD DATA

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.

CONTINUED ON PAGE: 3

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

CHROMIUM POTASSIUM SULFATE, 12-HYDRATE C4367 -03 ISSUED: 01/15/94 EFFECTIVE: 01/04/94

SECTION IV - FIRE AND EXPLOSION HAZARD DATA (CONTINUED)

UNUSUAL FIRE & EXPLOSION HAZARDS NONE IDENTIFIED.

TOXIC GASES PRODUCED SULFUR DIOXIDE

EXPLOSION DATA-SENSITIVITY TO MECHANICAL IMPACT NONE IDENTIFIED.

EXPLOSION DATA-SENSITIVITY TO STATIC DISCHARGE NONE IDENTIFIED.

______ SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE (TLV/TWA): 0.5 MG/M

SHORT-TERM EXPOSURE LIMIT (STEL): NOT ESTABLISHED

PERMISSIBLE EXPOSURE LIMIT (PEL): 0.5 MG/M

TOXICITY OF COMPONENTS

INTRAVENOUS RAT LD50 FOR CHROMIUM POTASSIUM SULFATE 112 MG/KG

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

CARCINOGENICITY

STUDIES INDICATE CHROMIUM (III) OXIDE IS NOT CARCINOGENIC. THE NATIONAL TOXICITY PROGRAM (NTP) LISTS "CHROMIUM AND CERTAIN CHROMIUM COMPOUNDS" AS SUBSTANCES KNOWN TO BE CARCINOGENS. NOTE: SPECIFIC CHROMIUM COMPOUNDS AND LEVELS CANNOT BE IDENTIFIED. THIS PRODUCT MAY CONTAIN LOW LEVELS OF HEXAVALENT CHROMIUM WHICH IS CARCINOGENIC.

REPRODUCTIVE EFFECTS NONE IDENTIFIED.

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

C4367 -03 CHROMIUM POTASSIUM SULFATE, 12-HYDRATE

PAGE: 4 ISSUED: 01/15/94

EFFECTIVE: 01/04/94

SECTION V - HEALTH HAZARD DATA (CONTINUED)

EFFECTS OF OVEREXPOSUR

INHALATION: NONE IDENTIFIED

SKIN CONTACT: IRRITATION

EYE CONTACT: IRRITATION

SKIN ABSORPTION: NONE IDENTIFIED

INGESTION: NONE IDENTIFIED

CHRONIC EFFECTS: NONE IDENTIFIED

TARGET ORGANS

SKIN

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE NONE IDENTIFIED

PRIMARY ROUTES OF ENTRY

INGESTION, SKIN CONTACT, EYE CONTACT

EMERGENCY AND FIRST AID PROCEDURES

CALL A PHYSICIAN. IF SWALLOWED, IF CONSCIOUS, IMMEDIATELY INGESTION:

INDUCE VOMITING.

IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE INHALATION:

ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE

OXYGEN.

SKIN CONTACT: IN CASE OF CONTACT, FLUSH SKIN WITH WATER.

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: YES CHRONIC: YES FLAMMABILITY: NO PRESSURE: NO REACTIVITY: NO

EXTREMELY HAZARDOUS SUBSTANCE: NO

CONTINUED ON PAGE: 5

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

CHROMIUM POTASSIUM SULFATE, 12-HYDRATE PAGE: 5 C4367 -03 ISSUED: 01/15/94 EFFECTIVE: 01/04/94 ______ SECTION V - HEALTH HAZARD DATA (CONTINUED) ______ CERCLA HAZARDOUS SUBSTANCE: YES CONTAINS CHROMIUM SARA 313 TOXIC CHEMICALS: YES CONTAINS CHROMIUM YES CONTAINS CHROMIUM (RQ = 1 LB) GENERIC CLASS REMOVED FROM CFR: 7/1/91 GENERIC CLASS: TSCA INVENTORY: YES STATE LISTS: FOR PRODUCTS SOLD IN THE STATE OF CALIFORNIA, THE STATE REQUIRES THAT WE PROVIDE TO USERS AND THEIR EMPLOYEES THE FOLLOWING MESSAGE: WARNING: THIS PRODUCT IS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER. ______ SECTION VI - REACTIVITY DATA ______ HAZARDOUS POLYMERIZATION: WILL NOT OCCUR STABILITY: STABLE CONDITIONS TO AVOID: HEAT, FLAME, OTHER SOURCES OF IGNITION 7 OMPATIBLES: ALUMINUM, MAGNESIUM DECOMPOSITION PRODUCTS: OXIDES OF SULFUR ______ SECTION VII - SPILL & DISPOSAL PROCEDURES ______ STEPS TO BE TAKEN IN THE EVENT OF A SPILL OR DISCHARGE WEAR SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING. WITH CLEAN SHOVEL, CAREFULLY PLACE MATERIAL INTO CLEAN, DRY CONTAINER AND COVER; REMOVE FROM AREA. FLUSH SPILL AREA WITH WATER. DISPOSAL PROCEDURE DISPOSE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS. EPA HAZARDOUS WASTE NUMBER: D007 (EP TOXIC WASTE) ______ SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT ______

REQUIREMENTS.

VENTILATION:

USE GENERAL OR LOCAL EXHAUST VENTILATION TO MEET TLV

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

C4367 -03 CHROMIUM POTASSIUM SULFATE, 12-HYDRATE PAGE: 6 EFFECTIVE: 01/04/94 ISSUED: 01/15/94 SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT (CONTINUED) RESPIRATORY PROTECTION: A RESPIRATOR WITH DUST/MIST FILTER IS RECOMMENDED. IF AIRBORNE CONCENTRATION EXCEEDS TLV, A SELF-CONTAINED BREATHING APPARATUS IS ADVISED. EYE/SKIN PROTECTION: SAFETY GOGGLES, RUBBER GLOVES ARE RECOMMENDED. ______ SECTION IX - STORAGE AND HANDLING PRECAUTIONS ______ SAF-T-DATA* STORAGE COLOR CODE: ORANGE (GENERAL STORAGE) STORAGE REQUIREMENTS KEEP CONTAINER TIGHTLY CLOSED. SUITABLE FOR ANY GENERAL CHEMICAL STORAGE AREA. ______ 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: 28332900006

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

MATERIAL SAFETY DATA SHEET

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

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

C4367 -03 CHROMIUM POTASSIUM SULFATE, 12-HYDRATE PAGE: 7 EFFECTIVE: 01/04/94 ISSUED: 01/15/94

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

-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 SO VARIED, BAKER CANNOT WARN OF ALL OF THE POTENTIAL DANGERS OF USE O. 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 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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