

MATERIAL SAFETY DATA SHEET

CADMIUM ACETATE, CRYSTALL, DIHYDRATE
CAROLINA BIOLOGICAL

Revised: 09/05/00
Replaces: None
Printed: 04/08/06

PRODUCT IDENTIFICATION

PRODUCT NAME: CADMIUM ACETATE, DIHYDRATE
COMMON SYNONYMS: ACETIC ACID, CADMIUM SALT, DIHYDRATE
CHEMICAL FAMILY: CADMIUM COMPOUNDS
FORMULA: (CH3COO)2CD 2H2O
FORMULA WT.: 266.52
CAS NO.: 5743-04-4
NIOSH/RTECS NO.: EU9810000
PRODUCT USE: LABORATORY REAGENT
PRODUCT CODES: 1190
CHEMTREC # (800) 424-9300 NATIONAL RESPONSE CENTER # (800) 424-8802
J.T.BAKER INC. 222 RED SCHOOL LANE PHILLIPSBURG, NJ 08865 24-HOUR
EMERGENCY TELEPHONE -- (201) 859-2151
EFFECTIVE: 05/13/93 ISSUED: 04/08/95
REVISION #06

PRECAUTIONARY LABELING

BAKER SAF-T-DATA* SYSTEM

HEALTH	-	3	SEVERE (CANCER CAUSING)
FLAMMABILITY	-	0	NONE
REACTIVITY	-	0	NONE
CONTACT	-	3	SEVERE (LIFE)

LABORATORY PROTECTIVE EQUIPMENT

GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES

U.S. PRECAUTIONARY LABELING

POISON DANGER

MAY BE FATAL IF SWALLOWED OR INHALED. EXCEPTIONAL HEALTH HAZARD. BEFORE USING, READ MATERIAL SAFETY DATA SHEET (MSDS) FOR THIS MATERIAL. NOTE: REPORTED AS CAUSING CANCER IN LABORATORY ANIMALS. EXERCISE DUE CARE. DANGER, CONTAINS CADMIUM, CANCER HAZARD, AVOID CREATING DUST, CAN CAUSE LUNG & KIDNEY DISEASE. DO NOT GET IN EYES, ON SKIN, ON CLOTHING. DO NOT BREATHE DUST. KEEP IN TIGHTLY CLOSED CONTAINER. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING.

INTERNATIONAL LABELING

HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. DO NOT BREATHE DUST.

SAF-T-DATA* STORAGE COLOR CODE: BLUE (HEALTH)

COMPONENTS

COMPONENT	CAS NO.	WEIGHT %	OSHA/PEL	ACGIH/TLV
CADMIUM ACETATE, DIHYDRATE	5743-04-4	90-100	N/E	N/E

PHYSICAL DATA

BOILING POINT: N/A VAPOR PRESSURE (MMHG): N/A
MELTING POINT: 130 C (266 F) VAPOR DENSITY (AIR=1): 8.0

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(AT 760 MM HG)
SPECIFIC GRAVITY: 2.01
(H₂O=1)
SOLUBILITY(H₂O): COMPLETE (100%)
PH: 7.1 (0.2M SOLUTION)
ODOR THRESHOLD (P.P.M.): N/A
COEFFICIENT WATER/OIL DISTRIBUTION: N/A
APPEARANCE & ODOR: COLORLESS CRYSTALS. FAINT ACETIC ACID ODOR.

EVAPORATION RATE: N/A
% VOLATILES BY VOLUME: 0
(21 C)
PHYSICAL STATE: SOLID

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (CLOSED CUP): N/A
AUTOIGNITION TEMPERATURE: N/A
FLAMMABLE LIMITS: UPPER - N/A LOWER - N/A
FIRE EXTINGUISHING 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. MOVE CONTAINERS FROM FIRE AREA IF IT CAN BE DONE WITHOUT RISK. USE WATER TO KEEP FIRE-EXPOSED CONTAINERS COOL.
UNUSUAL FIRE & EXPLOSION HAZARDS
CAN BE AN EXPLOSION HAZARD, ESPECIALLY WHEN HEATED.
TOXIC GASES PRODUCED
CADMIUM FUMES, CARBON MONOXIDE, CARBON DIOXIDE
EXPLOSION DATA-SENSITIVITY TO MECHANICAL IMPACT
NONE IDENTIFIED.
EXPLOSION DATA-SENSITIVITY TO STATIC DISCHARGE
NONE IDENTIFIED.

HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE (TLV/TWA): 0.05 MG/M
TLV IS FOR CADMIUM, DUSTS AND SALTS, AS CD.
SHORT-TERM EXPOSURE LIMIT (STEL): NOT ESTABLISHED
PERMISSIBLE EXPOSURE LIMIT (PEL): 0.2 MG/M
PEL IS FOR CADMIUM DUST, AS CD.

TOXICITY OF COMPONENTS
INTRAPERITONEAL MOUSE LD50 FOR CADMIUM ACETATE, DIHYDRATE 14
MG/KG
CARCINOGENICITY: NTP: YES IARC: YES Z LIST: NO OSHA REG: YES
CARCINOGENICITY
THIS SUBSTANCE IS LISTED AS A NTP ANTICIPATED HUMAN CARCINOGEN AND AN IARC PROBABLE HUMAN CARCINOGEN (GROUPS 2A AND 2B).
REPRODUCTIVE EFFECTS
NONE IDENTIFIED.
EFFECTS OF OVEREXPOSURE
INHALATION: HEADACHE, COUGHING, DIZZINESS, DIFFICULT BREATHING,
AND
MAY BE FATAL.

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SKIN CONTACT: NONE IDENTIFIED
EYE CONTACT: IRRITATION
SKIN ABSORPTION: NONE IDENTIFIED
INGESTION: IS HARMFUL AND MAY BE FATAL.
CHRONIC EFFECTS: LUNG DAMAGE, KIDNEY DAMAGE
TARGET ORGANS
RESPIRATORY SYSTEM, LUNGS, KIDNEYS, PROSTATE, BLOOD
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE
NONE IDENTIFIED
PRIMARY ROUTES OF ENTRY
INHALATION, INGESTION, EYE CONTACT
EMERGENCY AND FIRST AID PROCEDURES
INGESTION: CALL A PHYSICIAN. IF SWALLOWED, IF CONSCIOUS,
IMMEDIATELY
INDUCE VOMITING.
INHALATION: IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING,
GIVE
ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT,
GIVE
OXYGEN. PROMPT ACTION IS ESSENTIAL.
SKIN CONTACT: IN CASE OF CONTACT, IMMEDIATELY FLUSH SKIN WITH PLENTY
OF
WATER FOR AT LEAST 15 MINUTES WHILE REMOVING
CONTAMINATED
CLOTHING AND SHOES. WASH CLOTHING BEFORE RE-USE.
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
CERCLA HAZARDOUS SUBSTANCE: YES CONTAINS CADMIUM ACETATE (RQ = 100
LBS)
SARA 313 TOXIC CHEMICALS: YES CONTAINS CADMIUM
GENERIC CLASS: GENERIC CLASS REMOVED FROM CFR:
7/1/91
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.

REACTIVITY DATA

STABILITY: STABLE HAZARDOUS POLYMERIZATION: WILL NOT
OCCUR
CONDITIONS TO AVOID: HEAT, FLAME, OTHER SOURCES OF IGNITION
INCOMPATIBLES: NONE IDENTIFIED
DECOMPOSITION PRODUCTS: CADMIUM FUMES, CARBON MONOXIDE, CARBON DIOXIDE

SPILL & DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN THE EVENT OF A SPILL OR DISCHARGE

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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: D006 (EP TOXIC WASTE)

INDUSTRIAL PROTECTIVE EQUIPMENT

VENTILATION: USE GENERAL OR LOCAL EXHAUST VENTILATION TO MEET TLV

REQUIREMENTS.

RESPIRATORY PROTECTION: RESPIRATORY PROTECTION REQUIRED IF AIRBORNE CONCENTRATION EXCEEDS TLV. AT CONCENTRATIONS UP TO 1

PPM, A HIGH-EFFICIENCY PARTICULATE RESPIRATOR IS RECOMMENDED. ABOVE THIS LEVEL, A SELF-CONTAINED BREATHING APPARATUS IS ADVISED.

EYE/SKIN PROTECTION: SAFETY GOGGLES, UNIFORM, APRON, RUBBER GLOVES ARE

RECOMMENDED.

STORAGE AND HANDLING PRECAUTIONS

SAF-T-DATA* STORAGE COLOR CODE: BLUE (HEALTH)

STORAGE REQUIREMENTS

KEEP CONTAINER TIGHTLY CLOSED. STORE IN SECURE POISON AREA.

TRANSPORTATION DATA AND ADDITIONAL INFORMATION

DOMESTIC (D.O.T.)

PROPER SHIPPING NAME: CADMIUM COMPOUNDS (CADMIUM ACETATE, DIHYDRATE)

HAZARD CLASS: 6.1

UN/NA: UN2570 REPORTABLE QUANTITY: 10 LBS. PACKAGING GROUP: III

LABELS: 6 HARMFUL STOW AWAY FROM FOODSTUFFS

REGULATORY REFERENCES: 49CFR 172.101

INTERNATIONAL (I.M.O.)

PROPER SHIPPING NAME: CADMIUM COMPOUNDS (CADMIUM ACETATE, DIHYDRATE)

HAZARD CLASS: 6.1 I.M.O. PAGE: 6093

UN: UN2570 MARINE POLLUTANTS: YES PACKAGING GROUP: III

LABELS: 6 TOXIC

REGULATORY REFERENCES: 49CFR PART 176; IMDG CODE

AIR (I.C.A.O.)

PROPER SHIPPING NAME: CADMIUM COMPOUNDS (CADMIUM ACETATE, DIHYDRATE)

HAZARD CLASS: 6.1

UN: UN2570 PACKAGING GROUP: III

LABELS: 6 TOXIC

REGULATORY REFERENCES: 49CFR PART 175; ICAO=== WE BELIEVE THE TRANSPORTATION

FACTUAL AND DATA AND REFERENCES CONTAINED HEREIN TO BE

MEANT AS

THE OPINION OF QUALIFIED EXPERTS. THE DATA IS

A GUIDE TO THE OVERALL CLASSIFICATION OF THE

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PRODUCT

BE

THE

CONSIDERATION,

IN

LOCAL

49CFR

TRAINING 49

AND IS NOT PACKAGE SIZE SPECIFIC, NOR SHOULD IT
TAKEN AS A WARRANTY OR REPRESENTATION FOR WHICH
COMPANY ASSUMES LEGAL RESPONSIBILITY.=== THE
INFORMATION IS OFFERED SOLELY FOR YOUR
INVESTIGATION, AND VERIFICATION. ANY USE OF THE
INFORMATION MUST BE DETERMINED BY THE USER TO BE
ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND
LAWS AND REGULATIONS. SEE SHIPPER REQUIREMENTS
171.2, CERTIFICATION 172.204, AND EMPLOYEE
CFR 173.1(B).

U.S. CUSTOMS HARMONIZATION NUMBER: 29152900007

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 USE 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 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 ASSISTANCE. COPYRIGHT 1995 J.T.BAKER INC. * TRADEMARKS OF J.T.BAKER INC. APPROVED BY QUALITY ASSURANCE DEPARTMENT.