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M A T E R I A L S A F E T Y D A T A S H E E T

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

NAME: POTASSIUM DICHROMATE, dilute solutions
<0.02% w/v aqueous solution

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

CAS #: 7778-50-9
MF: CR2K2O7
EC NO: 231-906-6

SYNONYMS

BICHROMATE OF POTASH * DIPOTASSIUM DICHROMATE *
IOPEZITE *
KALIUMDICHROMAT (GERMAN) * POTASSIUM BICHROMATE *
POTASSIUM
DICHROMATE * POTASSIUM DICHROMATE(VI) *

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

LABEL PRECAUTIONARY STATEMENTS

OXIDIZING
HIGHLY TOXIC (USA)
VERY TOXIC (EU)
CONTACT WITH COMBUSTIBLE MATERIAL MAY CAUSE FIRE.
VERY TOXIC BY INHALATION, IN CONTACT WITH SKIN AND IF

SWALLOWED.

CAUSES BURNS.
MAY CAUSE CANCER.
MAY CAUSE HERITABLE GENETIC DAMAGE.
MAY CAUSE SENSITIZATION BY INHALATION AND SKIN

CONTACT.

TARGET ORGAN(S):
LUNGS
KIDNEYS
CAUSES BURNS.
SENSITIZER.

EYE/FACE

WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND
PROTECTION.

IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK
MEDICAL ADVICE
IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).
THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF
AS
HAZARDOUS WASTE.
AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL
INSTRUCTIONS/
SAFETY DATA SHEETS.
SECTION 4. ----- FIRST-AID MEASURES-----
IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED
PERSON IS CONSCIOUS.
CALL A PHYSICIAN IMMEDIATELY.
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE
ARTIFICIAL
RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
IN CASE OF SKIN CONTACT, FLUSH WITH COPIOUS AMOUNTS
OF WATER
FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED
CLOTHING AND
SHOES. CALL A PHYSICIAN.
IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS
AMOUNTS OF WATER
FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY
SEPARATING
THE EYELIDS WITH FINGERS. CALL A PHYSICIAN.
SECTION 5. ----- FIRE FIGHTING MEASURES-----
EXTINGUISHING MEDIA
CARBON DIOXIDE, DRY CHEMICAL POWDER OR
APPROPRIATE FOAM.
SPECIAL FIREFIGHTING PROCEDURES
FOR FIRES INVOLVING THIS MATERIAL, DO NOT ENTER ANY
ENCLOSED OR
CONFINED FIRE SPACE WITHOUT PROPER PROTECTIVE
EQUIPMENT. THIS MAY
INCLUDE SELF-CONTAINED BREATHING APPARATUS TO
PROTECT AGAINST THE
HAZARDOUS EFFECTS OF THE NORMAL PRODUCTS OF
COMBUSTION OR OXYGEN
DEFICIENCY.
UNUSUAL FIRE AND EXPLOSIONS HAZARDS
CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE.
EMITS TOXIC FUMES UNDER FIRE CONDITIONS.
SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----

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WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER
BOOTS AND HEAVY
RUBBER 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.
EVACUATE AREA.

SECTION 7. ----- HANDLING AND STORAGE-----
REFER TO SECTION 8.

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

SAFETY SHOWER AND EYE BATH.
USE ONLY IN A CHEMICAL FUME HOOD.
WASH CONTAMINATED CLOTHING BEFORE REUSE.
WASH THOROUGHLY AFTER HANDLING.
DO NOT BREATHE DUST.
DO NOT GET IN EYES, ON SKIN, ON CLOTHING.
AVOID PROLONGED OR REPEATED EXPOSURE.
NIOSH/MSHA-APPROVED RESPIRATOR.
COMPATIBLE CHEMICAL-RESISTANT GLOVES.
CHEMICAL SAFETY GOGGLES.
KEEP TIGHTLY CLOSED.
KEEP AWAY FROM COMBUSTIBLE MATERIALS, HEAT,
SPARKS, AND OPEN FLAME.
STORE IN A COOL DRY PLACE.

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

APPEARANCE AND ODOR
ORANGE CRYSTALLINE POWDER
PHYSICAL PROPERTIES
SOLUBILITY:

WATER -Z26104

PH: 3.5 - 5.0

SWISS POISON CLASS: 4

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

STABILITY

STABLE.

INCOMPATIBILITIES

ORGANIC MATERIALS

AVOID CONTACT WITH ACID.

FINELY POWDERED METALS

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

POTASSIUM OXIDES

CHROMIUM (VI) OXIDE

HAZARDOUS POLYMERIZATION

WILL NOT OCCUR.
SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

ACUTE EFFECTS
INHALATION OF DICHROMATE DUSTS CAN CAUSE
ULCERATION AND PERFORATION
OF THE NASAL SEPTUM. CONTACT WITH BREAKS IN THE SKIN
CAN CAUSE
ULCERATION (CHROME SORES). OTHER SYMPTOMS OF
EXPOSURE INCLUDE EROSION
AND DISCOLORATION OF THE TEETH, NEPHRITIS, EPIGASTRIC
PAIN
(INFLAMMATION AND ULCERATION OF THE
GASTROINTESTINAL TRACT).
MATERIAL IS EXTREMELY DESTRUCTIVE TO TISSUE OF THE
MUCOUS MEMBRANES
AND UPPER RESPIRATORY TRACT, EYES AND SKIN.
INHALATION MAY RESULT IN SPASM, INFLAMMATION AND
EDEMA OF THE
LARYNX AND BRONCHI, CHEMICAL PNEUMONITIS AND
PULMONARY EDEMA.
SYMPTOMS OF EXPOSURE MAY INCLUDE BURNING
SENSATION, COUGHING,
WHEEZING, LARYNGITIS, SHORTNESS OF BREATH,
HEADACHE, NAUSEA AND
VOMITING.
INGESTION CAN CAUSE:
VOMITING
CYANOSIS
COMA
CAUSES BURNS.
MAY BE FATAL IF ABSORBED THROUGH SKIN.
MATERIAL IS EXTREMELY DESTRUCTIVE TO THE TISSUE OF
THE MUCOUS MEMBRANES
AND UPPER RESPIRATORY TRACT.
MAY BE FATAL IF INHALED.
MAY BE FATAL IF SWALLOWED.
MAY CAUSE ALLERGIC RESPIRATORY AND SKIN REACTIONS.
CHRONIC EFFECTS
MAY ALTER GENETIC MATERIAL.
THIS IS OR CONTAINS A COMPONENT THAT HAS BEEN
REPORTED TO BE
CARCINOGENIC BASED ON ITS IARC, OSHA, ACGIH, NTP OR
EPA CLASSIFICATION.
TARGET ORGAN(S):
LUNGS

KIDNEYS

BLOOD

RTECS #: HX7680000

DICHROMIC ACID, DIPOTASSIUM SALT

TOXICITY DATA

ORL-CHD LDLO:26 MG/KG

ZEKIA5 81,417,1958

ORL-MAN LDLO:143 MG/KG

YAKUD5 40,2677,1998

ORL-CHD LDLO:50 MG/KG

YAKUD5 40,2677,1998

ORL-RAT LD50:25 MG/KG

NTIS** OTS0545929

IPR-RAT LD50:28 MG/KG

GISAAA (5),30,1997

ORL-MUS LD50:190 MG/KG

SAIGBL 20,590,1978

IPR-MUS LD50:37 MG/KG

CRNGDP 4,1535,1983

SKN-RBT LD50:14 MG/KG

NTIS** OTS0537040

TARGET ORGAN DATA

SENSE ORGANS AND SPECIAL SENSES (OTHER EYE EFFECTS)

BEHAVIORAL (SOMNOLENCE)

BEHAVIORAL (ATAXIA)

VASCULAR (BP LOWERING NOT CHARACTERIZED IN

AUTONOMIC SECTION)

LUNGS, THORAX OR RESPIRATION (ACUTE PULMONARY

EDEMA)

LUNGS, THORAX OR RESPIRATION (DYSPNAE)

LUNGS, THORAX OR RESPIRATION (RESPIRATORY

STIMULATION)

GASTROINTESTINAL (HYPERMOTILITY, DIARRHEA)

GASTROINTESTINAL (NAUSEA OR VOMITING)

KIDNEY, URETER, BLADDER (CHANGES IN TUBULES)

KIDNEY, URETER, BLADDER (INTERSTITIAL NEPHRITIS)

KIDNEY, URETER, BLADDER (URINE VOLUME DECREASED OR

ANURIA)

SKIN AND APPENDAGES (AFTER SYSTEMIC EXPOSURE:

DERMATITIS, OTHER)

PATERNAL EFFECTS (SPERMATOGENESIS)

MATERNAL EFFECTS (OTHER EFFECTS ON FEMALE)

EFFECTS ON FERTILITY (PRE-IMPLANTATION MORTALITY)

EFFECTS ON FERTILITY (POST-IMPLANTATION MORTALITY)

EFFECTS ON FERTILITY (LITTER SIZE)

EFFECTS ON FERTILITY (OTHER MEASURES OF FERTILITY)

EFFECTS ON EMBRYO OR FETUS (EXTRA EMBRYONIC

STRUCTURES)

EFFECTS ON EMBRYO OR FETUS (FETOTOXICITY)

EFFECTS ON EMBRYO OR FETUS (FETAL DEATH)

SPECIFIC DEVELOPMENTAL ABNORMALITIES

(CRANIOFACIAL)

SPECIFIC DEVELOPMENTAL ABNORMALITIES

(MUSCULOSKELETAL SYSTEM)

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 -----
CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL
SERVICE TO DISPOSE OF
THIS MATERIAL.

DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE
SOLVENT AND BURN IN A
CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER
AND SCRUBBER.

OBSERVE ALL FEDERAL, STATE AND LOCAL
ENVIRONMENTAL REGULATIONS.

SECTION 14. ----- TRANSPORT INFORMATION -----
CONTACT ALDRICH CHEMICAL COMPANY FOR
TRANSPORTATION INFORMATION.

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

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EUROPEAN INFORMATION

EC INDEX NO: 024-002-00-6

OXIDIZING

VERY TOXIC

R 49

MAY CAUSE CANCER BY INHALATION.

R 46

MAY CAUSE HERITABLE GENETIC DAMAGE.

R 41

RISK OF SERIOUS DAMAGE TO EYES.

R 43

MAY CAUSE SENSITIZATION BY SKIN CONTACT.

R 50/53

VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-
TERM ADVERSE

EFFECTS IN THE AQUATIC ENVIRONMENT.

S 45

IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK
MEDICAL ADVICE

IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK

ACGIH TLV-TWA 0.05 MG(CR)/M3

DTLVS*

TLV/BEI,1999

ACGIH TLV-CONFIRMED HUMAN CARCINOGEN DTLVS*
TLV/BEI,1999
IARC CANCER REVIEW:HUMAN INADEQUATE EVIDENCE
IMEMDT 23,205,1980
IARC CANCER REVIEW:HUMAN SUFFICIENT EVIDENCE
IMEMDT 49,49,1990
IARC CANCER REVIEW:ANIMAL INADEQUATE EVIDENCE
IMEMDT 23,205,1980
IARC CANCER REVIEW:GROUP 1 IMEMDT 49,49,1990
EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-
REGISTRATION
FEREAC 54,7740,1989
MSHA STANDARD-AIR:TWA 0.5 MG(CR)/M3
DTLVS* 3,35,1971
OSHA PEL (GEN INDU):CL 0.1 MG(CRO3)/M3
CFRGBR 29,1910.1000,1994
OSHA PEL (CONSTRUC):CL 0.1 MG(CRO3)/M3
CFRGBR 29,1926.55,1994
OSHA PEL (SHIPYARD):CL 0.1 MG(CRO3)/M3
CFRGBR 29,1915.1000,1993
OSHA PEL (FED CONT):CL 0.1 MG(CRO3)/M3
CFRGBR 41,50-204.50,1994
OEL-UNITED KINGDOM: CARCINOGEN, SEP2000
NIOSH REL TO CHROMIUM(VI)-AIR:10H CA TWA 0.001
MG(CR)/M3
NIOSH* DHHS #92-100,1992
NOHS 1974: HZD 80064; NIS 73; TNF 4772; NOS 53; TNE 42402
NOES 1983: HZD 80064; NIS 70; TNF 4860; NOS 58; TNE 61073; TFE
19198
EPA GENETOX PROGRAM 1988, POSITIVE: SHE-CLONAL
ASSAY; IN VITRO
CYTOGENETICS-NONHUMAN
EPA GENETOX PROGRAM 1988, POSITIVE: B SUBTILIS REC
ASSAY
EPA GENETOX PROGRAM 1988, POSITIVE: CHO GENE
MUTATION
EPA TSCA SECTION 8(B) CHEMICAL INVENTORY
EPA TSCA SECTION 8(D) UNPUBLISHED HEALTH/SAFETY
STUDIES
EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JANUARY
2001
U.S. INFORMATION
THIS PRODUCT IS SUBJECT TO SARA SECTION 313 REPORTING
REQUIREMENTS.
THIS PRODUCT IS OR CONTAINS CHEMICAL(S) KNOWN TO
THE STATE OF

CALIFORNIA TO CAUSE CANCER.

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

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT
DOES NOT PURPORT TO

BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE.