

VAN WATERS AND ROGERS INC -- SODIUM BICHROMATE CRYSTAL -- 6810-00-262-8566

===== Product Identification =====

Product ID:SODIUM BICHROMATE CRYSTAL

MSDS Date:01/01/1998

FSC:6810

NIIN:00-262-8566

Status Code:A

MSDS Number: CKSZS

=== Responsible Party ===

Company Name:VAN WATERS AND ROGERS INC

Address:6100 CARILLON POINT

City:KIRKLAND

State:WA

ZIP:98033-7357

Country:US

Info Phone Num:425-889-3400/42

5-889-3617

Emergency Phone Num:1-800-733-3665 OR 972-3228

Resp. Party Other MSDS Num.:PROD NO: 627538 MSDS: M5395

CAGE:0STM5

=== Contractor Identification ===

Company Name:MEXPAR INTL, INC

Address:532 W. FOOTHILL BLVD

Box:City:AZUSA

State:CA

ZIP:91702

Country:US

Phone:626-812-6211

CAGE:0P0U1

Company Name:OCCIDENTAL CHEMICAL CORPORATION

Address:5005 LYNDON B JOHNSON FWY

Box:City:DALLAS

State:TX

ZIP:75244-6198

Country:US

Phone:800-752-5151/972-404-3800

CAGE:0AH54

Company Name:VOPAK USA INC

Address

:6100 CARILLON POINT
Box:City:KIRKLAND
State:WA
ZIP:98033-7357
Country:US
Phone:425-889-3400/425-889-3617
Contract Num:SP0450-00-M-D889
CAGE:0STM5

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Composition/Information on Ingredients
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Ingred Name:CHROMIC ACID (NA2CR2O7), DISODIUM SALT
CAS:10588-01-9
RTECS #:HX7700000
Minumum % Wt:85.
Maxumum % Wt:89.
OSHA PEL:SEE TABLE Z-2
ACGIH TLV:0.05 MG/M3
EPA Rpt Qty:10 LBS
DOT Rpt Qty:10 LBS

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Hazards Identification
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LD50 LC50 M

ixture:ACUTE ORAL LD50: (RAT) 51 MG/KG BOTH SEX

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES

Health Hazards Acute and Chronic:SHORT TERM EXPOSURE (ACUTE):

INHALATION: INHALATION OF DUST OR MIST MAY CAUSE SEVERE IRRITATION OF NASAL SEPTUM AND RESPIRATORY TRACT. MAY CAUSE KIDNEY AND LIVER DAMAGE. EYES: CONTACT CAN CAUSE SEVERE DAMAGE INCLUDING BURNS AND BLINDNESS. SKIN: CONTACT CAN CAUSE SEVERE BURNS. CONTACT WITH

BROKEN SKIN MAY LEAD TO FORMATION OF FIRMLY MARGINATED "CHROME SORES". MAY CAUSE ALLERGIC CONTACT DERMATITIS. DERMAL ABSORPTION OF LARGE AMOUNTS MAY RESULT IN KIDNEY FAILURE AND DEATH. INGESTION: CAN CAUSE SEVERE TISSUE DESTRUCTION. KIDNEY FAILURE MAY FOLLOW AND RESULT IN DEATH. MAY CAUSE LIVER DAMAGE. SEE TOXICOLOGICAL FIELD FOR CHRONIC EXPOSURE.

Explanation of Carcinogenicity:NTP AND IARC DETERMINED THERE IS SUFFICIENT EVIDENCE FOR CARCINOGENICITY OF HEXAVALEN

T CHROMIUM

COMPOUNDS IN HUMANS AND EXPERIMENTAL ANIMALS. HOWEVER, HEXAVALENT CHROMIUM COMPOUNDS RESPONSIBLE (FOR HUMAN CARCINOGENICITY) CANNOT BE SPECIFIED. SODIUM BICHROMATE CONTAINS HEXAVALENT CHROMIUM, CLASSIFIED AS IARC (GROUP I) CARCINOGEN, AND KNOWN CARCINOGEN BY NTP.

Effects of Overexposure: SEVERE IRRITATION OF NASAL SEPTUM AND RESPIRATORY TRACT, KIDNEY AND LIVER DAMAGE, RESPIRATORY TRACT CANCER, SEVERE EYE DAMAGE INCLUDING BURNS AND BLINDNESS, CONJUNCTIVITIS

, SEVERE SKIN BURNS, "CHROME SORES" ON SKIN (ESPECIALLY BROKEN SKIN), CONTACT DERMATITIS, KIDNEY FAILURE, DEATH, ULCERATION AND PERFORATION OF NASAL SEPTUM. INCREASES IN RESPIRATORY TRACT CANCER IN MAN.

Medical Cond Aggravated by Exposure: PRE-EXISTING DISORDERS AFFECTING TARGET ORGANS.

===== First Aid Measures =====

First Aid: EYES: FLUSH WITH WATER FOR 15 MINUTES, HOLD LIDS APART TO ENSURE COMPLETE IRRIGATION. GET MEDICAL ATTENTION. SKI

N: FLUSH

EXPOSED AREAS WITH WATER. REMOVE CONTAMINATED CLOTHING. WASH CONTAMINATED AREAS WITH SOAP AND WATER. WASH CLOTHING BEFORE REUSE. DISCARD SHOES IF NOT ABLE TO DECONTAMINATE. GET MEDICAL ATTENTION. INHALATION: MOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, GIVE OXYGEN. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF CONSCIOUS, IRRIGATE NASAL PASSAGES AND MOUTH WITH WATER. GET MEDICAL ATTENTION. INGESTION: DO NOT INDUCE VOMITING. IF CONSCIOUS GIVE LARGE AMO

UNTS OF WATER OR MILK. GET MEDICAL ATTENTION.

===== Fire Fighting Measures =====

Flash Point: NON-FLAMMABLE

Extinguishing Media: NON-FLAMMABLE / NON-COMBUSTIBLE. USE AGENTS APPROPRIATE FOR SURROUNDING FIRE.

Fire Fighting Procedures: WEAR NIOSH/MSHA APPROVED POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

Unusual Fire/Explosion Hazard: OXIDIZER. AVOID CONTACT WITH ORGANIC MATERIALS

===== Accidental

Release Measures =====

Spill Release Procedures:PREVENT ENTRY INTO SEWERS AND WATERWAYS.
REPORT SPILLS TO APPROPRIATE AGENCIES. REMOVE WITH VACUUM TRUCK OR SHOVEL INTO STEEL CONTAINER. TREAT AREA WITH REDUCING AGENT TO CONVERT HEXAVALENT TO TRIVALE NT FORM. NEUTRALIZE WITH WEAK BASE (SODIUM BICARBONATE, SODA ASH, LIME) SOAK UP WITH INERT ABSORBENT (SAND) AND PLACE IN CLOSED, LABELLED CONTAINER FOR DISPOSAL.

Neutralizing Agent:REDUCING AGENTS: SODIUM BISULFITE, SODIUM SULFITE, FERROUS SULFATE, OR FERROUS CHLORIDE. BASE: LIME, SODA ASH.

===== Handling and Storage =====

Handling and Storage Precautions:STORE IN TIGHTLY CLOSED, LABELLED CONTAINERS AWAY FROM COMBUSTIBLE MATERIALS.

Other Precautions:WEAR PERSONAL PROTECTIVE EQUIPMENT. DO NOT GET IN EYES, ON SKIN OR CLOTHING. AVOID PROLONGED OR REPEATED EXPOSURE. AVOID BREATHING AIRBORNE PARTICULATES; WEAR RESPIRATORY PROTECTION WHEN EXPOSURE IS POSSIBLE. WASH CONTAMINATED CLOTHING BEFORE REUSE. WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING .

===== Exposure Controls/Personal Protection =====

Respiratory Protection:WEAR A NIOSH/MSHA APPROVED RESPIRATOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS, WHERE DUSTS, MISTS, FUMES OR VAPORS MAY OCCUR.

Ventilation:WORK AREA SHOULD BE ISOLATED AND CONTAINED AND PROVIDED WITH ADEQUATE LOCAL EXHAUST VENTILATION OR OTHER CONTROLS WHERE DUST OR FUMES MAY BE GENERATED.

Protective Gloves:WEAR CHEMICAL RESISTANT GLOVES SUCH AS PVC OR NITRILE.

Eye Protection:WEAR CHEMICAL SAFETY GOGGLES PLUS FULL FACE SHIELD TO PROTECT AGAINST SPLASHING

Other Protective Equipment:PROTECTIVE CLOTHING SHOULD BE WORN AND CHANGED AT LEAST DAILY. WASH CONTAMINATED CLOTHING WITH SOAP AND WATER AND DRY BEFORE REUSE. ADVISE THE LAUNDRY OF THE MATERIAL CONTAMINATING THE CLOTHING.

Work Hygienic Practices:EMERGENCY SHOWER AND EYEWASH FACILITY SHOULD BE IN CLOSE P

PROXIMITY (ANSI Z358.1).

Supplemental Safety and Health

CERTAIN PROCESSES LIKE CHROME PIGMENT PRODUCTION, HIGH TEMPERATURE WELDING OR CUTTING MAY FORM MATERIALS MORE HAZARDOUS TO HUMANS THAN THIS PRODUCT. ENGINEERING CONTROLS AND LOCAL EXHAUST VENTILATION IS REQUIRED TO ENSURE THAT WORKER EXPOSURE IS BELOW CURRENT PEL.

===== Physical/Chemical Properties =====

HCC:T4

Melt/Freeze Pt:=357.2C, 675.F

Decomp Temp:Decomp Text:NOT AVAILABLE

Spec Gravity:2.35@25C

(DENS 96 LB/FT3)

pH:4.0 FOR 1.5%SOL

Solubility in Water:74%@25C, HIGHLY SOLUBLE

Appearance and Odor:BRIGHT ORANGE CRYSTALS, NO DISTINCTIVE ODOR.

Percent Volatiles by Volume:NOT AVAILABL

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

REACTS WITH HEAT. AVOID CONTACT WITH ORGANIC MATERIALS, OILS, GREASES OR ANY EASILY OXIDIZABLE MATERIAL.THIS PRODUCT IS A MILD OXIDIZING AGENT IN SOLUTION, BUT BECOMES A STRONG OXIDIZING AGENT WHEN MIXED

WITH A STRONG ACID

Stability Condition to Avoid:STABLE

Hazardous Decomposition Products:NONE.

Conditions to Avoid Polymerization:WILL NOT OCCUR.

===== Toxicological Information =====

Toxicological Information:CHRONIC HEALTH EFFECTS: PROLONGED OR REPEATED CONTACT MAY CAUSE CONJUNCTIVITIS, "CHROME SORES" ON SKIN (ESPECIALLY BROKEN SKIN), OR ULCERATION AND PERFORATION OF THE NASAL SEPTUM. EPIDEMIOLOGICAL STUDIES INDICATE LONG TERM EXPOSURE

TO DUSTS AND

MISTS IN CHROME PROCESSING INDUSTRY IS ASSOCIATED WITH INCREASES IN RESPIRATORY TRACT CANCER IN MAN; THE CAUSATIVE AGENT IS UNKNOWN.

EPIDEMIOLOGICAL STUDIES HAVE NOT DEMONSTRATED ANY INCREASED RISK OF CANCER AT EXPOSURE LEVELS BELOW THE CURRENT PEL.ORAL, RAT LD50:

51 MG/KG. DERMAL, RABBIT LD50: 1.00 G/KG. INHALATION, RAT LC50: 124 MG/M3 4 HRS.

===== Ecological Information =====

Ecological:THERE IS A SIGNIFICANT AMOUNT OF

INFORMATION CONCERNING THE

ENVIRONMENTAL FATE AND EFFECTS OF SODIUM BICHROMATE (SODIUM DICHROMATE) AND CHROMIUM. CHROMIUM COMPOUNDS HAVE BEEN FOUND TO EXHIBIT MODERATE TO HIGH TOXICITY TO AQUATIC AND TERRESTRIAL ORGANISMS. SODIUM BICHROMATE WILL PERSIST PRIMARILY AS CHROME (III) AND CHROME (VI) IN WATER AND SOIL SYSTEMS. MATERIAL RELEASED TO THE ATMOSPHERE IS SUBJECT TO DEPOSITION WITH PARTICULATES OR RAINFALL. UNDER CERTAIN ENVIRONMENTAL CONDITIONS CHROMIUM MAY BE

SUBJECT TO LOW LEVELS OF BIOACCUMULATION IN BOTH AQUATIC AND TERRESTRIAL (CONTD. IN "OTHER INFORMATION" FIELD.)

===== Disposal Considerations =====

Waste Disposal Methods:TREAT WITH A REDUCING AGENT TO CONVERT HEXAVALENT CHROMIUM TO TRIVALENT CHROMIUM, THEN NEUTRALIZE WITH A WEAK BASE. THE SOLID MATERIAL MEETING TREATMENT STANDARDS MAY BE DISPOSED OF VIA AN APPROVED CHEMICAL WASTE LANDFILL IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REQUIREMENTS.

===== MSDS Transport Information =====

Transport Information:DOT PROPER SHIPPING NAME: TOXIC SOLID, INORGANIC, N.O.S. (SODIUM BICHROMATE). DOT HAZARD CLASS: 6.1; UN 3288; DOT PACKING GROUP: III; DOT HAZARDOUS SUBSTANCE: RQ 10 LBS (SODIUM BICHROMATE); DOT MARINE POLLUTANTS: N/A; ADDITIONAL DESCRIPTION REQUIREMENTS: N/A..

===== Regulatory Information =====

SARA Title III Information:THIS PRODUCT CONTAINS A TOXIC CHEMICAL OR CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 310 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR 372. SARA\ TITLE III HAZARD CATEGORIES: IMMEDIATE (ACUTE) HEALTH: YES. DELAYED (CHRONIC) HEALTH: YES. FIRE HAZARD: YES. REACTIVE HAZARD: NO. SUDDEN RELEASE OF PRESSURE: NO.

Federal Regulatory Information:THIS PRODUCT CONTAINS A TOXIC CHEMICAL OR CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS

OF SECTIONS

State Regulatory Information:STATE OF CALOIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986 (PROPOSITION 65): WARNING: THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER. SEE MANUFACTURE RS MSDS FOR APPLICABLE STATE REGULATIONS. CONSULT LOCAL LAWS FOR APPLICABILITY. INTERNATIONAL REGULATIONS: CONSULT THE REGULATIONS OF THE IMPORTING COUNTRY. CANADA: WHIMS HAZARD CLASS: C, DIA, D2A, D2 B. OTHER INFORMATION: FOR AD

DITIONAL NON-EMERGENCY HEALTH, SAFETY, OR ENVIRONMENTAL INFORMATION TELE PHONE (972) 404-2405 OR WRITE TO:OCCIDENTAL CHEMICAL CORP. 5005 LBJ FREEWAY, P.O. BOX809050, DALLAS, TEXAS 7580.

===== Other Information =====

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