

MALLINCKRODT BAKER, INC. (FORMERLY J.T. BAKER INC) -- SODIUM DICHROMATE (SEE SUPPL)  
-- 6810-00-143-2000

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

Product ID:SODIUM DICHROMATE (SEE SUPPL)  
MSDS Date:10/15/1998  
FSC:6810  
NIIN:00-143-2000  
Status Code:A  
MSDS Number: CLQFF  
=== Responsible Party ===  
Company Name:MALLINCKRODT BAKER, INC. (FORMERLY J.T. BAKER INC)  
Address:222 RED SCHOOL LANE  
City:PHILLIPSBURG  
State:NJ  
ZIP:08865-2219  
Country:US  
Info Phone Num:800-582-2537  
Eme  
rgency Phone Num:908-859-2151  
Resp. Party Other MSDS Num.:S3506  
Chemtrec Ind/Phone:(800)424-9300  
CAGE:70829

=== Contractor Identification ===

Company Name:MALLINCKRODT BAKER, INC.  
Address:222 RED SCHOOL LANE  
Box:City:PHILLIPSBURG  
State:NJ  
ZIP:08865  
Country:US  
Phone:800-582-2537  
CAGE:70829

===== Composition/Information on Ingredients =====

Ingred Name:SODIUM DICHROMATE  
CAS:10588-01-9  
RTECS #:HX7700000  
Minumum % Wt:99.  
Maxumum % Wt:100.  
OSHA PEL:SEE TABLE Z-2  
ACGIH TLV:0.05 MG

/M3  
EPA Rpt Qty:10 LBS  
DOT Rpt Qty:10 LBS

===== Hazards Identification =====

LD50 LC50 Mixture:ORAL RAT LD50: 50 MG/KG  
Reports of Carcinogenicity:NTP:YES IARC:YES  
Health Hazards Acute and Chronic:INHALATION: CORROSIVE ! EXTREMELY  
DESTRUCTIVE TO TISSUES OF MUCOUS MEMBRANES AND UPPER RESPIRATORY  
TRACT. MAY CAUSE ULCERATION AND PERFORATION OF NASAL SEPTUM.  
INGESTION: CORROSIVE ! SWALLOWING CAN CAUSE SEVERE BURNS OF MOUTH,  
THROAT, AND STOMACH,  
LEADING TO DEATH.CAN CAUSE LIVER DAMAGE, ACUTE  
RENAL FAILURE. SKIN CONTACT: CORROSIVE ! DUSTS AND STRONG SOLUTIONS  
MAY CAUSE SEVERE IRRITATION. CONTACT WITH BROKEN SKIN MAY CAUSE  
ULCERS (CHROME SORES) AND ABSORPTION, WHICH MAY CAUSE SYSTEMIC  
POISONING, AFFECTING KIDNEYS AND LIVER FUNCTIONS. MAY CAUSE SKIN  
SENSITIZATION. EYE CONTACT: CORROSIVE ! MAY CAUSE CORNEAL INJURY  
OR BLINDNESS.  
Explanation of Carcinogenicity:PRODUCT KNOWN TO BE A CARCINOGEN. SODIUM  
DICHROMATE ( 10588-01-9); KNOWN NTP CARCINOGEN. IARC CATEGORY: 1  
("THE AGENT IS CARCINOGENIC TO HUMANS". DEGREE OF EVIDENCE:  
"INADEQUATE EVIDENCE".)  
Effects of Overexposure:INHALATION: SORE THROAT, COUGHING, SHORTNESS OF  
BREATH, LABORED BREATHING, PULMONARY SENSITIZATION OR ALLERGIC  
ASTHMA, PULMONARY EDEMA. INGESTION: BURNS OF MOUTH, THROAT,  
STOMACH, SORE THROAT, VOMITING, DIARRHEA, VIOLENT GASTROENTERITIS,  
PERIPHERAL VASCULAR COLLAPSE, DIZZINESS, INTENSE THIRST, MUSCLE  
CRAMPS, SHOCK, COMA, ABNORMAL BLEEDING, FEVER, SKIN: REDNESS, PAIN,  
SEVERE BURN, IRRITATION, ULCERS (CHROME SORES) AND ABSORPTION,  
SYSTEMIC POISONING, AFFECTING KIDNEY AND LIVER FUNCTIONS, SKIN  
SENSITIZATION. EYE CONTACT: BLURRED VISION, REDNESS, PAIN, AND  
SEVERE TISSUE BURNS. MAY CAUSE CORNEAL INJURY OR BLINDNESS.  
Medical Cond Aggravated by Exposure:PERSONS WITH PRE-EXISTING SKIN  
DISORDERS, ASTHMA, ALLERGIES OR KNOWN SENSITIZATION TO CHROMIC ACID  
OR CHROMATES MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THIS  
MATERIAL.

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

First Aid:INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE  
ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. GET  
MEDICAL ATTENTION. INGESTION: DO NOT INDUCE VOMITING. GIVE LARGE  
QUANTITIES OF WATER. NEVER GIVE ANYTHING BY MOUTH TO AN  
UNCONSCIOUS PERSON. GET MEDICAL ATTENTION. SKIN CONTACT: FLUSH  
WITH WATER FOR 15 MINUTES WHILE REMOVING CONTAMINANT

MINATED CLOTHING AND

SHOES. GET MEDICAL ATTENTION. WASH CLOTHING BEFORE REUSE.

THOROUGHLY CLEAN SHOES BEFORE REUSE. EYE CONTACT: FLUSH WITH WATER FOR 15 MINUTES, LIFTING LOWER AND UPPER EYELIDS OCASIONALLY. GET MEDICAL ATTENTION.

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

Flash Point:NOT COMBUSTIBLE

Extinguishing Media:USE MEANS SUITABLE FOR EXTINGUISHING SURROUNDING FIRE. USE WATER SPRAY TO KEEP FIRE EXPOSED CONTAINERS COOL.

Fire Fighting Procedures:

IN THE EVENT OF A FIRE, WEAR FULL PROTECTIVE CLOTHING AND NIOSH APPROVED SELF CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN PRESSURE DEMAND OR OTHER POSITIVE PRESSURE MODE. PRODUCT IS NOT COMBUSTIBLE, IS A STRONG OXIDIZER. ITS HEAT OF REACTION WITH REDUCING AGENTS OR COMBUSTIBLES MAY CAUSE IGNITION.

Unusual Fire/Explosion Hazard:STRONG OXIDANTS MAY EXPLODE WHEN SHOCKED, OR IF EXPOSED TO HEAT, FLAME, OR FRICTION. ALSO MAY REACT AS INITIATION SOURCE FOR DUST OR VAPOR EXPLOSIONS.

===== Accidental Release Measures =====

Spill Release Procedures:VENTILATE AREA OF LEAK OR SPILL. WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT. SWEEP UP AND CONTAINERIZE FOR RECLAMATION OR DISPOSAL. VACUUMING OR WET SWEEPING MAY BE USED TO AVOID DUST DISPERSAL. US REGULATIONS (CERCLA) REQUIRE REPORTING SPILLS AND RELEASES TO SOIL, WATER AND AIR IN EXCESS OF REPORTABLE QUANTITIES. TOLL FREE NUMBER FOR US COAST

GUARD NATIONAL RESPONSE CENTER IS (800)424-8802.

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

Handling and Storage Precautions:PROTECT AGAINST PHYSICAL DAMAGE. STORE IN DRY LOCATION AWAY FROM COMBUSTIBLE, ORGANIC, OR OTHER OXIDIZABLE MATERIAL. AVOID STORAGE ON WOOD FLOORS. REMOVE AND DISPOSE OF ANY SPILLED DICHROMATES; DO NOT RETURN TO ORIGINAL CONTAINERS. WEAR SPECIAL PROTECTIVE EQUIPMENT FOR MAINTENANCE (CONTD. SEE BELOW)

Other Precautions:(CONTD. FR

OM ABOVE) BREAK-IN OR WHERE EXPOSURE MAY  
EXCEED ESTABLISHED EXPOSURE LEVELS. WASH HANDS, FACE, FOREARMS AND  
NECK WHEN EXITING RESTRICTED AREAS. SHOWER, DISPOSE OF OUTER  
CLOTHING, CHANGE TO CLEAN GARMENTS AT END OF DAY. AVOID  
CROSS-CONTAMINATION OF STREET CLOTHES. WASH HANDS BEFORE (CONTD.  
SEE "OTHER INFO")

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

Respiratory Protection: IF THE EXPOSURE LIMIT IS EXCEEDED, A FULL-FACE  
PIECE DUST/MIST RESPIRATOR MAY BE WORN UP TO 50 TIMES EXPOSURE  
LIMIT. FOR EMERGENCIES OR INSTANCES WHERE EXPOSURE LEVELS ARE NOT  
KNOWN, USE A FULL-FACE PIECE POSITIVE-PRESSURE, AIR-SUPPLIED  
RESPIRATOR. WARNING ! AIR-PURIFYING RESPIRATORS DO NOT PROTECT  
WORKERS IN OXYGEN-DEFICIENT ATMOSPHERES.

Ventilation: LOCAL AND/OR GENERAL EXHAUST IS RECOMMENDED TO KEEP  
EMPLOYEE EXPOSURES BELOW LIMITS. LOCAL EXHAUST IS GENERALLY  
PREFERRED.

Protective Gloves: WEAR IMPERVIOUS GLOVES TO PREVENT SKIN CONTACT.

Eye Protection:

USE CHEMICAL SAFETY GOGGLES AND/OR FULL FACE SHIELD FOR  
DUSTING AND SPLASHING.

Other Protective Equipment: WEAR IMPERVIOUS CLOTHING, INCLUDING BOOTS,  
GLOVES, LAB COAT, APRON, COVERALLS, TO PREVENT SKIN CONTACT. PROVIDE  
QUICK DRENCH FACILITIES AND EYE WASH FOUNTAIN IN WORK AREA.

Work Hygienic Practices: SHOWER, DISPOSE OF OUTER CLOTHING, CHANGE TO  
CLEAN GARMENTS AT THE END OF THE DAY. AVOID CROSS-CONTAMINATION OF  
STREET CLOTHES. WASH HANDS BEFORE EATING, DO NOT DRINK, EAT  
OR  
SMOKE IN WORKPLACE.

Supplemental Safety and Health

CONTD FROM PRODUCT ID: PRODUCT CODES: BAKER: 3672, 3674. MALLINCKRODT:  
7420, 7424. SYNONYMS: SODIUM DICHROMATE; SODIUM BICHROMATE  
DIHYDRATE; CHROMIC ACID; DISODIUM SALT, DIHYDRATE; SODIUM  
DICHROMATE, DIHYDRATE.

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

HCC:D2

Boiling Pt: =400.C, 752.F

Melt/Freeze Pt: =357.C, 674.6F

Vapor Pres: 0 MM HG, @ 20C

Vapor Density: 10 (AIR=1)

Spec Gravity: 2.35 @ 25C

pH: 3.5 (

1% SOLN)

Evaporation Rate & Reference: NO INFORMATION FOUND.

Solubility in Water: SOLUBLE 73% IN WATER.

Appearance and Odor: ORANGE-RED CRYSTALS OR GRANULES; ODORLESS.

Percent Volatiles by Volume: 0

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

Stability Indicator/Materials to Avoid: YES

HYDRAZINE, ACETIC ANHYDRIDE, ETHANOL, TRINITROTOLUENE, HYDROXYLAMINE, STRONG ACIDS, OXIDIZABLE MATERIALS ESPECIALLY IN PRESENCE OF STRONG ACID SOLUTIONS. COMBUSTIBLE, ORGANIC, OTHER READILY OXIDIZABLE

MATERIAL (PAPER, WOOD,

Stability Condition to Avoid: HEAT, INCOMPATIBLES. STABLE UNDER ORDINARY CONDITIONS OF USE AND STORAGE.

Hazardous Decomposition Products: BURNING MAY PRODUCE CHROME OXIDES.

Conditions to Avoid Polymerization: WILL NOT OCCUR.

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

Toxicological Information: HEALTH: CHRONIC EXPOSURE CAN CAUSE ULCERATION AND PERFORATION OF NASAL SEPTUM, RESPIRATORY IRRITATION, LIVER AND KIDNEY DAMAGE

GE, ULCERATION OF SKIN. ULCERATIONS AT FIRST MAY BE PAINLESS, MAY PENETRATE TO BONE PRODUCING "CHROME HOLES". KNOWN TO BE A HUMAN CARCINOGEN. J.T. BAKER SAF-T-DATA RATINGS: HEALTH: 4, EXTREME (CANCER CAUSING); FLAMMABILITY: 0, NONE; REACTIVITY: 3, SEVERE (OXIDIZER); CONTACT: 3, SEVERE (CORROSIVE); LAB PROTECTIVE EQUIP.: GOGGLES AND SHIELD; LAB COAT AND APRON; VENT HOOD; PROPER GLOVES. ORAL, RAT, LD50: 50 MG/KG. INVESTIGATED AS A TUMORIGEN, MUTAGEN, REPRODUCTIVE EFFECTOR.

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

Ecological: ENVIRONMENTAL FATE: WHEN RELEASED INTO SOIL, PRODUCT MAY LEACH INTO GROUNDWATER. WHEN RELEASED INTO WATER, PRODUCT IS NOT EXPECTED TO EVAPORATE SIGNIFICANTLY. THIS MATERIAL MAY BIOACCUMULATE TO SOME EXTENT. WHEN RELEASED INTO THE AIR, PRODUCT MAY BE REMOVED FROM THE ATMOSPHERE TO A MODERATE EXTENT BY WET DEPOSITION. ENVIRONMENTAL TOXICITY: THIS PRODUCT IS EXPECTED TO BE TOXIC TO AQUATIC

IC LIFE.

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

Waste Disposal Methods:WHAT IS NOT SAVED FOR RECOVERY, RECYCLING, HANDLE AS HAZARDOUS WASTE. SEND TO RCRA APPROVED WASTE FACILITY. PROCESSING, USE, CONTAMINATION MAY CHANGE WASTE MANAGEMENT OPTIONS. STATE AND LOCAL REGULATIONS MAY DIFFER FROM FEDERAL REGULATIONS. DISPOSE OF CONTAINER AND UNUSED CONTENTS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS.

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

Transport Information:DOMESTIC (LAND, D.O.T.): PROPER SHIPPING NAME: RQ, OXIDIZING SOLID, CORROSIVE, N.O.S. (SODIUM DICHROMATE); HAZARD CLASS: 5.1, 8, 6.1; UN 3085; PKG: I I; INFORMATION REPORTED FOR PRODUCT/ SIZE: 100 LBS . INTERNATIONAL (WATER, I.M.O.): PROPER SHIPPING NAME: OXIDIZING SOLID, CORROSIVE, N.O.S. (SODIUM DICHROMATE); CLASS: 5.1, 8, 6.1; UN 3083; PKG: I I; INFORMATION REPORTED FOR PRODUCT/SIZE: 100 LBS. SO DIUM DICHROMAT E RQ= 10 POUNDS.

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

SARA Title III Information:FEDERAL, STATE AND INTERNATIONAL REGULATIONS - PART 1: SODIUM DICHROMATE (10588-01-9): SARA 302: NO; TPQ: NO. SARA 313: LIST: NO; CHEMICAL CATG: CHROMIUM COM. -PART 2: CERCLA: 10; RCRA 261.33: NO; TSC A 8(D): NO. SARA 311/312: ACUTE: YES; CHRONIC: YES; FIRE: YES; PRESSURE: NO; REACTIVITY: NO; (PURE / SOLID).

Federal Regulatory Information:CHEMICAL INVENTORY S

TATUS - PART1:

SODIUM DICHROMATE (10588-01-9): TSCA: YES; EC: YES; JAPAN: YES; AUSTRALIA: YES. - PART 2: KOREA: YES; CANADA DSL: YES; CANADA NDSL: NO; PHIL.: YES. CHEMICAL WEAPONS CONVENTION: NO; TSCA 12(B): YES; CDTA: NO.

State Regulatory Information:WARNING ! THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

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

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ncies):

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