

MALLINCKRODT BAKER INC -- NICKEL SULFATE -- 6810-00-281-2684

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

Product ID:NICKEL SULFATE

MSDS Date:04/15/1999

FSC:6810

NIIN:00-281-2684

Status Code:A

MSDS Number: CKTJZ

=== Responsible Party ===

Company Name:MALLINCKRODT BAKER INC

Address:222 RED SCHOOL LANE

City:PHILLIPSBURG

State:NJ

ZIP:08865-2219

Country:US

Info Phone Num:908-859-2151/ 800-582-2537

Emergency Ph

one Num:800-424-9300

Resp. Party Other MSDS Num.:N3122

Preparer's Name:STRATEGIC SERVICES DIV

Chemtec 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

Company Name:PHOENIX INDUSTRIES INC

Address:1519 CHAMBERLAYNE PARKWAY

Box:City:RICHMOND

State:VA

ZIP:23222

Country:US

Phone:804-264-5183/FAX: 264-5535

Contract Num:SP0450-00-M-SJ9

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 ===== Composition/Information on Ingredients =====
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Ingred Name:NICKEL SULFATE

CAS:7786-81-4

RTECS #:QR9350000

Minumum % Wt:90.

Maxumum % Wt:100.

OSHA PEL:1 MG/M3

ACGIH TLV:0.1 MG/M3

EPA Rpt Qty:100 LBS

DOT Rpt Qty:100 LBS

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 ===== Hazards Identification =====
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LD50 LC50 Mixture:NO INFORMATION FOUND

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

Reports of Carcinogenicity:NTP:YES IARC:YES

Health Hazards Acute and Chroni

c:INHALATION: CAUSES IRRITATION OF

RESPIRATORY TRACT, LUNG DAMAGE. LUNG ALLERGY OCCASIONALLY OCCURS, WITH ASTHMA TYPE SYMPTOMS. INGESTION: TOXIC. ABSORPTION IS POOR, BUT SHOULD IT OCCUR, CAUSES CNS DEPR ESSION & KIDNEY & LIVER DAMAGE. SKIN: CAUSES IRRITATION. MAY CAUSE SKIN ALLERGY WITH ITCHING, REDNESS OR RASH. SOME INDIVIDUALS MAY BECOME SENSITIZED TO THE SUBSTANCE.AND SUFFER "NICKEL ITCH" A FORM O F DERMATITIS. EYE CONTACT: CAUSES IRRITATION, REDNESS, PAIN. CHRONIC

EXPOSURE:

PROLONGED OR REPEATED EXPOSURE MAY AFFECT LUNGS, LIVER AND KIDNEYS. CHRONIC EXPOSURE TO NICKEL & NICKEL COMPOUNDS IS ASSO CIATED WITH CANCER.

Explanation of Carcinogenicity:IARC CATEGORY 1 CARCINOGEN. LISTED AS ANTICIPATED NTP CARCINOGEN.

Effects of Overexposure:INHALATION: IRRITATION TO THE RESPIRATORY TRACT, COUGHING, SORE THROAT & SHORTNESS OF BREATH. LUNG DAMAGE MAY RESULT FROM A SINGLE HIGH EXPOSURE OF LOWER REPEATED EXPOSURES. LUNG ALLERGY OCCASIONALL

Y OCCURS, WITH ASTHMA TYPE SYMPTOMS.

INGESTION: ABDOMINAL PAIN, DIARRHEA, NAUSEA & VOMITING. ABSORPTION: GIDDINESS, CAPILLARY DAMAGE, MYOCARDIAL WEAKNESS, CNS DEPRESSION & KIDNEY & LIVER DAMAGE. SKIN:IR RITATION, ITCHING, REDNESS OR RASH.

Medical Cond Aggravated by Exposure:PERSONS WITH PRE-EXISTING SKIN DISORDERS, IMPAIRED RESPIRATORY OR PULMONARY FUNCTION, OR WITH A HISTORY OF ASTHMA, ALLERGIES, OR SENSITIZATION TO NICKEL COMPOUNDS MAY BE AT AN INCREASED RISK?

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

First Aid:INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. GET MEDICAL ATTN. INGESTION: INDUCE VOMITING IMMEDIATELY AS DIRECTED BY MEDICAL PERSONNEL. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTN. SKIN: WIPE OFF EXCESS MATERIAL FROM SKIN THEN IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINS. REMOVE CONTAMINATED CLOTHING & SHOES. GET MEDICAL ATTN. WASH CLOTHING & THOROUGHLY CLEAN SHOES BEFORE REUSE. EYE: IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINS., LIFTING LOWER & UPPER EYELIDS. GET MEDICAL ATTN.

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

Extinguishing Media:USE ANY MEANS SUITABLE FOR EXTINGUISHING SURROUNDING FIRE.
Fire Fighting Procedures:WEAR FULL PROTECTIVE CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN THE PRESSURE DEMAND OR OTHER POSITIVE PRESSURE MODE.
Unusual Fire/Explosion Hazard:NOT CONSIDERED TO BE A FIRE HAZARD. NOT CONSIDERED TO BE AN EXPLOSION HAZARD.

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

Spill Release Procedures:VENTILATE AREA OF LEAK/SPILL. WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT. SPILL:SWEEP UP & CONTAINERIZE FOR RECLAMATION OR DISPOSAL. VACUUMING OR WET SWEEPING MAY BE USED TO AVOID DUST DISPERSAL. US REGULATIONS (CERCLA) REQUIRE REPORTING SPILL & RELEASES TO SOIL, WATER & AIR IN EXCESS OF REPORTABLE QUANTITIES. THE TOLL FREE NUMBER FOR THE US COAST GUARD NATIONAL RESPONSE CENTER IS 800-424-8802
Neutralizing Agent:NOT PROVIDED BY RESPONSIBLE PARTY.

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

Handling and Storage Precautions:KEEP IN A TIGHTLY CLOSED CONTAINER, STORED IN A COOL, DRY, VENTILATED AREA. PROTECT AGAINST PHYSICAL DAMAGE

GE. ISOLATE FROM INCOMPATIBLE SUBSTANCES. AREAS IN WHICH EXPOSURE TO NICKEL METAL OR SOLUBLE NICKEL COMPOUND MAY OCCUR SHOULD BE IDENTIFIED BY SIGNS OR APPROPRIATE MEANS, AND ACCESS TO THE AREA

Other Precautions: CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTY SINCE THEY RETAIN PRODUCT RESIDUES (DUST, SOLID); OBSERVE ALL WARNINGS AND PRECAUTIONS LISTED FOR THE PRODUCT.

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

Respiratory Protection: IF THE EXPOSURE LIMIT IS EXCEEDED, A HALF-FACE DUST/MIST RESPIRATOR MAY BE WORN FOR UP TO TEN TIMES THE EXPOSURE LIMIT OR THE MAXIMUM USE CONCENTRATION SPECIFIED BY THE APPROPRIATE REGULATORY AGENCY OR RESPIRATOR SUPPLIER, WHICHEVER IS LOWEST. A FULL-FACE PIECE DUST/MIST RESPIRATOR MAY BE WORN UP TO 50 TIMES THE EXPOSURE LIMIT, OR THE MAXIMUM USE CONCENTRATION

Ventilation: A SYSTEM OF LOCAL &/OR GENERAL EXHAUST IS RECOMMENDED TO KEEP EMPLOYEE EXPOSURES BELOW THE AIRBORNE EXPOSURE LIMITS. LOCAL

EXHAUST VENTILATION IS GENERALLY

Protective Gloves: RUBBER OR NEOPRENE GLOVES.

Eye Protection: USE CHEMICAL SAFETY GOGGLES &/OR FULL FACE SHIELD WHERE DUSTING OR SPLASHING

Other Protective Equipment: IMPERVIOUS BOOTS, APRON, OR COVERALLS, AS NEEDED IN AREAS OF UNUSUAL EXPOSURE. MAINTAIN EYE WASH FOUNTAIN AND QUICK-DRENCH FACILITIES IN WORK AREA.

Work Hygienic Practices: EATING, DRINKING, AND SMOKING SHOULD NOT BE PERMITTED IN AREAS WHERE SOLIDS OR LIQUIDS CONTAINING SOLUBLE

NICKEL COMPOUNDS ARE HANDLED, PROCESSED, OR STORED.

Supplemental Safety and Health

NIOSH RECOMMENDS PRE-PLACEMENT AND PERIODIC MEDICAL EXAMS, WITH MAINTAINING OF RECORDS FOR ALL EMPLOYEES EXPOSED TO NICKEL IN THE WORKPLACE.

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

HCC: C3

Boiling Pt: =103.C, 217.4F

B.P. Text: (LOSES 6H₂O)

Melt/Freeze Pt: =100.C, 212.F

M.P/F.P Text: LOSES WATER

Vapor Pres: NO INFORMATION FOUND

Spec Gravity: 2.03

pH: CA. 4.5

Evaporation Ra

te & Reference:NO INFORMATION FOUND
Solubility in Water:75.6 G/100 CC WATER@15.5C
Appearance and Odor:BLUE-GREEN CRYSTALS; ODORLESS.
Percent Volatiles by Volume:0

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

Stability Indicator/Materials to Avoid:YES
STRONG ACIDS.

Stability Condition to Avoid:INCOMPATIBLES. STABLE UNDER ORDINARY
CONDITIONS OF USE AND STORAGE. AT 53.3C (128F), THE SUBSTANCE
UNDERGOES TRANSITION TO TRANSPARENT GREEN CRYSTALS. SOLUTIONS ARE

ACIDIC.

Hazardous Decomposition Products:BURNING MAY PRODUCE SULFUR OXIDES.
Conditions to Avoid Polymerization:WILL NOT OCCUR

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

Toxicological Information:NO LD50/LC50 INFORMATION FOUND RELATING TO
NORMAL ROUTES OF OCCUPATIONAL EXPOSURE. INVESTIGATED AS A TUMORIGEN
AND MUTAGEN.

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

Ecological:ENVIRONMENTAL FATE: NO INFORMATION FOUND. ENVIRONMENTAL
TOXIC
ITY: NO INFORMATION FOUND.

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

Waste Disposal Methods:PROCESSING, USE OR CONTAMINATION OF THIS PRODUCT
MAY CHANGE THE WASTE MANAGEMENT OPTIONS. STATE & LOCAL DISPOSAL
REGULATIONS MAY DIFFER FROM FEDERAL DISPOSAL REGULATIONS. DISPOSE
OF CONTAINER & UNUSED CONTENTS I/AW FEDERAL, STATE AND LOCAL
REQUIREMENTS. SEE OTHER INFORMATION DETAIL.

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

Transpo

rt Information:PROPER SHIPPING NAME: RQ, ENVIRONMENTALLY
HAZARDOUS SUBSTANCES, SOILD, N.O.S. (NICKEL SULFATE). HAZARD CLASS:
9. UN/NA: UN3077. PACKING GROUP: III. INFORMATION REPORTED FOR
PRODUCT/SIZE: 100 LB.

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Regulatory Information
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SARA Title III Information:SARA 302 RQ: NO, SARA 302 TPQ: NO, SARA 313
LIST: NO, SARA 313 CHEMICAL CATEGORY: NICKEL COMPOUND. SARA
311/312: ACUTE: YES, CHRONIC: YES, FIRE: NO, PRESSURE: NO,
REACT
IVITY: NO.

Federal Regulatory Information:TSCA: YES. CERCLA: 100. RCRA 26.33: NO.
TSCA 8(D): NO. CHEMICAL WEAPONS CONVENTION: NO. TSCA 12 (B): NO.
CDTA: NO.

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

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Other Information
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Disclaimer (provided with this information by the compiling agencies):
This information is formulated for use by elements of the Departmen
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of Defense. The United States of America in no manner whatsoever,
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assume responsibility for the suitability of this information to their
particular situation.