

MALLINCKRODT BAKER, INC. -- SODIUM NITROFERRICYANIDE -- 6810-00-148-7212

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

Product ID:SODIUM NITROFERRICYANIDE

MSDS Date:12/08/1996

FSC:6810

NIIN:00-148-7212

Status Code:A

MSDS Number: CLKLZ

=== Responsible Party ===

Company Name:MALLINCKRODT BAKER, INC.

Address:222 RED SCHOOL LANE

City:PHILLIPSBURG

State:NJ

ZIP:08865-2219

Country:US

Info Phone Num:800-582-2537/FAX: 908-859-9318

Emergency Phone Num:(800)424-9300

Resp. Party O

ther MSDS Num.:MSDS NUMBER: S4490. (SEE SUPPL DATA)

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

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

Ingred Name:SODIUM NITROFERRICYANIDE

CAS:14402-89-2

RTECS #:LJ8750000

Minumum % Wt:90.

Maxumum % Wt:100.

===== Hazards Identificatio

n =====

LD50 LC50 Mixture: ANHYDROUS: LD50 ORAL (RAT): =99 MG/KG

Reports of Carcinogenicity: NTP: NO IARC: NO OSHA: NO

Health Hazards Acute and Chronic: DECOMPOSES ON CONTACT WITH BIOLOGICAL MATERIAL TO RELEASE FREE CYANIDE. IS LESS TOXIC ORALLY THAN INTRAVENOUSLY, BUT IS HIGHLY TOXIC. INHALATION: IRRITATES RESPIRATORY TRACT & SYSTEMIC POISONING LIKE INGESTION. INGESTION: TOXIC EFFECTS SIMILAR TO NITRATE POISONING. SKIN: MAY BE ABSORBED THROUGH SKIN WITH TOXIC E

FFECTS LIKE INGESTION. EYE: MAY

CAUSE IRRITATION, REDNESS & PAIN. CHRONIC: REPEATED EXPOSURE THROUGH ANY ROUTE MAY CAUSE SYMPTOMS SIMILAR TO IODISM OR BROMIDE INTOXICATION: SKIN RASHES, WEAKNESS, FATIGUE, NAUSEA, VOMITING, DIARRHEA & CONFUSION.

Explanation of Carcinogenicity: NONE PROVIDED BY MFR

Effects of Overexposure: PINK-RED SKIN COLOR OR BLUE WITHOUT OXYGEN.

REDDENING OF EYES & PUPIL DILATION, HEADACHE, VOMITING, COLIC & DIARRHEA, MUSCULAR WEAKNESS, DIZZINESS, COLLAPSE, FALL IN BLOOD

SE, FALL IN BLOOD

PRESSURE, CYANOSIS, CONVULSIONS, COMA, RESPIRATORY PARALYSIS & DEATH DUE TO CIRCULATORY COLLAPSE. NAUSEA, DIARRHEA, ABDOMINAL PAIN. LARGE DOSES: SUDDEN LOSS OF CONSCIOUSNESS & PROMPT DEATH FROM RESPIRATORY ARREST. SMALLER BUT LETHAL DOSES MAY PROLONG ILLNESS FOR ONE OR MORE HOURS. BITTER ALMOND ODOR ON BREATH OR VOMITUS. SKIN: IRRITATION, REDNESS & PAIN. EYES: IRRITATION, REDNESS, PAIN.

Medical Condition Aggravated by Exposure: WORKERS USING CYANIDES SHOULD HAVE

PREPLACEMENT & PERIODIC MEDICAL EXAM. THOSE WITH HISTORY OF CENTRAL NERVOUS SYSTEM, THYROID, SKIN, HEART, OR LUNG DISEASES MAY BE MORE SUSCEPTIBLE TO EFFECTS OF PRODUCT

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

First Aid: FOR CYANIDE POISONING GIVE FIRST AID IMMEDIATELY THEN GET MEDICAL ATTENTION. HAVE CYANIDE ANTIDOTE KIT (AMYL NITRATE, SODIUM NITRATE & SODIUM THIOSULFATE) IN AREA. O<sub>2</sub> & AMYL NITRATE CAN BE GIVEN BY FIRST RESPONDER. HAVE VICTIM

IM INHALE AMYL NITRATE FOR 15-30 SEC/MIN

UNTIL SODIUM NITRATE & SODIUM THIOSULFATE CAN BE ADMINISTERED INTRAVENOUSLY. USE NEW AMYL NITRATE AMPOULE EVERY 3 MIN. IF CONSCIOUS W/SYMPTOMS GIVE O<sub>2</sub>. IF UNCONSCIOUS GIVE O<sub>2</sub> & AMYL NITRATE BY POSITIVE PRESSURE RESPIRATOR. INHALATION: MOVE TO FRESH AIR. GIVE ANTIDOTE FOR SYMPTOMS. KEEP WARM/QUIET. DO NOT GIVE MOUTH TO MOUTH. INGESTION: GIVE ANTIDOTE & O<sub>2</sub>. SEE OTHER INFO FIELD.

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

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Flash Point:NONE PROVIDED BY  
Autoignition Temp:Autoignition Temp Text:NONE P  
Lower Limits:NONE PROVIDE  
Upper Limits:NONE PROVIDE  
Extinguishing Media:USE ANY MEANS SUITABLE FOR EXTINGUISHING  
SURROUNDING FIRE  
Fire Fighting Procedures:NO CONSIDERED TO BE A FIRE HAZARD. IN THE  
EVENT OF A FIRE, WEAR FULL PROTECTIVE CLITHING AND NIOSH-APPROVED  
SELF CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN  
THE PRESSURE DEMAND OR OT HER POSITIVE PRESSURE MODE. MAY E  
MIT  
TOXIC AND FLAMMABLE FUMES OF CYANIDE IF INVOLVED IN A FIRE.  
Unusual Fire/Explosion Hazard:NOT CONSIDERED TO BE AN EXPLOSION HAZARD.

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

Spill Release Procedures:VENTILATE AREA OF LEAK OR SPILL. KEEP  
UNNECESSARY AND UNPROTECTED PEOPLE AWAY FROM AREA OF SPILL. WEAR  
APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT AS SPECIFIED. SPILLS:  
PICK UP AND PLACE IN A SUITABLE C ONTAINER FOR RECLAMATION OR  
DISPOSAL, USING A ME  
THOD THAT DOES NOT GENERATE DUST.  
Neutralizing Agent:NOT APPLICABLE. SEE PHYSICIANS NOTE IN OTHER  
INFORMATION FIELD.

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

Handling and Storage Precautions:KEEP IN A TIGHTLY CLOSED CONTAINER.  
STORE IN COOL DRY WELL VENT AREA. PROTECT AGAINST PHYSICAL DAMAGE.  
KEEP FROM INCOMPATIBLES. FOLLOW GOOD HYGIENIC PRACTICES. NO EATING,  
DRINKING, SMOKING IN WORKPLAC E. MAINTAIN/USE PROPER PROTECTIVE  
EQUIPMENT. GET PREPLACEME  
NT & ANNUAL EXAMS. GIVE SPECIAL TRAINING.  
Other Precautions:EMPTY CONTAINERS CONTAIN DUST & ARE HAZARDOUS.  
OBSERVE ALL WARNINGS. ALL PERSONS POTENTIALLY EXPOSED SHOULD BE  
TRAINED IN IMMEDIATE FIRST AID USING OXYGEN & AMYL NITRATE. HAVE  
ANTIDOTE KIT AVAILABLE. CHECK ANNUALLY FOR SHELF LIFE. IDENTIFY  
HOSPITALS & EMS SQUADS TO HANDLE CYANIDE EMERGENCIES.

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

Respiratory Protection:IF THE EXPOSURE LIMIT IS EXCEEDED, W

EAR A

SUPPLIED AIR, FULL-FACEPIECE RESPIRATOR, AIRLINED HOOD, OR  
FULL-FACEPIECE SELF CONTAINED BREATHING APPARATUS. THIS SUBSTANCE  
HAS POOR WARNING PROPERTIES

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

Protective Gloves:WEAR IMPERVIOUS GLOVES

Eye Protection:USE CHEMICAL SAFETY GOGGLES

Other Protective Equipment:WEAR IMPERVIOUS PROTECTIVE CLOTHING

INCLUDING BOOTS, GLOVES, LAB COAT, APRON OR COVERALLS AS  
APPROPRIATE TO PREVENT SKIN CONTACT. MAINTAIN EYE WASH FOUNTAIN AND  
QUICK-DRENCH FACILITIES IN WORK AREA

Work Hygienic Practices:WORKERS MUST CAREFULLY FOLLOW GOOD HYGIENIC  
PRACTICES, INCLUDING NO EATING, DRINKING, OR SMOKING IN WORKPLACE

Supplemental Safety and Health

OTHER MSDS NO: CONT: PRODUCT CODES: J.T.BAKER: 3792, MALLINCKROTD: 7828

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

HCC:T3

Melt/Freeze

Pt.M.P/F.P Text:NO INFORMATION FOUND

Decomp Temp:Decomp Text:NONE PROVIDED BY MFR

Vapor Pres:NO INFORMATION FOUND

Vapor Density:NO INFORMA

Spec Gravity:NONE PROVIDED BY MFR

pH:NO INFORMATION

Viscosity:NONE PROVIDED BY MFR

Evaporation Rate & Reference:NO INFORMATION FOUND

Solubility in Water:43 G/100 CC WATER@16C(61F

Appearance and Odor:RED TRANSPARENT CRYSTALS. ODORLESS

Percent Volatiles by Volume:0

Corrosion Rate:NONE PROVIDED BY MFR

===== Stability and Reactivity Data =====  
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Stability Indicator/Materials to Avoid:YES

STRONG ACIDS, STRONG OXIDIZERS

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

Hazardous Decomposition Products:THERMAL DECOMPOSITION PRODUCTS MAY  
INCLUDE: CARBON OXIDES, NITROGEN OXIDES, AND HYDROGEN CYANIDE.WHEN  
HEATED TO DECOMPOSITION OR COMES IN CONTACT WITH ACID OR ACID FUMES  
IT EMITS TOXIC FUMES OF CYANIDES

Conditions to Avoid Polymerization:WILL NOT OCCUR

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

Toxicological Information:ANHYDROUS: ORAL RAT LD50: 99 MG/KG.  
INVESTIGATED AS REPRODUCTIVE EFFECTOR.

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

Ecological:NO INFORMATION FOUND ON ENVIRONMENTAL FATE OR TOXICITY.

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

Waste Disposal Methods:WHATEVER CANNOT BE SAVED FOR RECOVERY OR  
RECYCLING SHOULD BE MANAGED IN APPROVED WASTE FACILITY. AL  
THOUGH  
NOT LISTED RCRA HAZARDOUS WASTE, MATERIAL MAY EXHIBIT ONE OR MORE  
CHARACTERISTICS OF HAZARDOUS WASTE & REQUIRE APPROPRIATE ANALYSIS  
TO DETERMINE SPECIFIC DISPOSAL REQUIREMENTS. PROCESSING, USE O R  
CONTAMINATION MAY CHANGE OPTIONS. FOLLOW REGS.

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

Transport Information:DOT: TOXIC SOLID, INORGANIC, N.O.S. (SODIUM  
NITROFERRICYANIDE), 6.1, UN3288, PG II, INFORMATION REPORTED FOR  
PRODUCT/SIZE: 500 G.

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

SARA Title III Information:CYANIDE COMPOUNDS ARE SARA 313 CHEMICALS.  
SARA 311/312 CATEGORY: ACUTE, CHRONIC.  
Federal Regulatory Information:ON TSCA INVENTORY.  
State Regulatory Information:NOT PROVIDED

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

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