

MALLINCKRODT BAKER, INC. -- PHOSPHORUS AMORPHOUS -- 4460-00-875-4568

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Product Identification  
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Product ID:PHOSPHORUS AMORPHOUS

MSDS Date:12/08/1996

FSC:4460

NIIN:00-875-4568

Status Code:A

MSDS Number: CJVPF

=== Responsible Party ===

Company Name:MALLINCKRODT BAKER, INC.

Address:222 RED SCHOOL LANE

City:PHILLIPSBURG

State:NJ

ZIP:08865

Country:US

Info Phone Num:800-582-2537

Emergency Phone

Num:908-859-2151

Resp. Party Other MSDS Num.:MSDS # P4017 J.T. BAKER: 9358 MALL: 6620

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

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Phone:800-582-2537

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Composition/Information on Ingredients  
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Ingred Name:PHOSPHORUS

CAS:7723-14-0

RTECS #:TH3495000

Mininum % Wt:90.

Maxu

mum % Wt:100.  
OSHA PEL:0.1 MG/M3  
ACGIH TLV:0.1 MG/M3;0.02 PPM  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

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

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:ACUTE- INHALATION: MAY CAUSE  
BRONCHITIS, LIVER OR KIDNEY IMPAIRMENT FROM YELLOW PHOSPHORUS.  
INGESTION: RED PHOSPHORUS IS NOT READILY ABSORBED AND IS CONSIDERED  
NON-POISONOUS. SOME YELLOW FORM MAY BE PRESENT WHICH COULD CAUSE  
POISONING WITH IRRITATION. SKIN: WHITE PHOSPHORUS MAY CAUSE DEEP,  
SLOW HEALING BURNS. EYES: YELLOW PHOSPHORUS CAN CAUSE SEVERE  
IRRITATION & BURNS. CHRONIC INGESTION OR INHALATION MAY INDUCE  
SYSTEMIC PHOSPHOROUS POISONING. LIVER DAMAGE, KIDNEY DAMAGE,  
JAW/TOOTH ABNORMALITIES, BLOOD DISORDERS AND CARDIOVASCULAR EFFECTS  
CAN RESULT. THE ESTIMATED LETHAL ADULT HUMAN DOSE FOR WHITE  
PHOSPHORUS IS 50-100 MG.  
Effects of Overexposure:INHALATION: MAY CAUSE COUGHING IF CONTAMINATED  
WITH YELLOW PHOSPHORUS. INGESTION: NAUSEA, VOMITING, ABDOMINAL PAIN  
OR GARLIC ODOR ON BREATH. SKIN: RED PHOSPHORUS IS NOT HARMFUL TO  
SKIN. IF CONTAMINATED WITH WHITE PHOSPHORUS, HOWEVER, CONTACT MAY  
CAUSE DEEP, SLOW HEALING BURNS. EYE CONTACT: RED PHOSPHOROUS CAUSES  
EYE IRRITATION. IF CONTAMINATED WITH YELLOW PHOSPHORUS, EYE CONTACT  
CAN CAUSE SEVERE IRRITATION AND BURNS.  
Medical Cond Aggravated by Exposure:PERSONS WITH PRE-EXISTING SKIN  
DISORDERS OR EYE PROBLEMS, JAW/TOOTH ABNORMALITIES, OR IMPAIRED  
LIVER, KIDNEY OR RESPIRATORY FUNCTION MAY BE MORE SUSCEPTIBLE TO  
THE EFFECTS OF THE SUBSTANCE.

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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 ATTENTION. INGESTION: IF SWALLOWED, DO NOT INDUCE VOMITING.  
GIVE LARGE QUANTITIES OF WATER. NEVER GIVE ANYTHING BY MOUTH TO AN  
UNCONSCIOUS PERSON.

UNCONSCIOUS PERSON. GET MEDICAL ATTENTION IMMEDIATELY. SKIN CONTACT: WASH EXPOSED AREA WITH SOAP AND WATER. GET MEDICAL ADVICE IF IRRITATION DEVELOPS. EYE CONTACT: IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES, LIFTING LOWER AND UPPER EYELIDS OCCASIONALLY. GET MEDICAL ATTENTION IMMEDIATELY.

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

Autoignition Temp:=260.C, 500.F

Extinguishing Media:FLAMMABLE SOLID. MAY IGNITE FROM FRICTION OR ROUGH HANDLING.

HANDLING. WATER FLOODING FOLLOWED BY COVERING WITH WET SAND, CLAY, GROUND LIMESTONE UNTIL CLEAN-UP.

Fire Fighting Procedures:BURNING PHOSPHORUS PRODUCES IRRITATING BUT NOT HIGHLY TOXIC OXIDES. FLAME-RETARDANT FULL PROTECTIVE CLOTHING AND FULL BREATHING APPARATUS SHOULD BE WORN WITH PHOSPHORUS FIRES. THE RED FORM CAN CONVERT TO THE MORE READILY-FLAMMABLE YELLOW FORM AT HIGH TEMPERATURES.

Unusual Fire/Explosion Hazard:MAY FORM EXPLOSIVE MIXTURES WITH OXIDIZING MATERIALS. SENSITIVE TO STATIC DISCHARGE.

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

Spill Release Procedures:MOISTEN THE SPILLED PHOSPHORUS AND KEEP IT UNDER WET SAND OR THE LIKE UNTIL IT CAN BE COLLECTED & PLACED IN A CLOSED CONTAINER. REMOVE ALL SOURCES OF IGNITION. VENTILATE AREA. WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT. SPILLS: CLEAN UP SPILLS IN A MANNER THAT DOES NOT DISPERSE DUST INTO THE AIR. REPORT SPILLS & RELEASES TO SOIL, WATER & AIR IN EXCESS OF REPORTABLE QUANTITIES.

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

Handling and Storage Precautions:KEEP IN A TIGHTLY CLOSED CONTAINER, STORED IN A COOL, DRY, VENTILATED AREA. PROTECT AGAINST PHYSICAL DAMAGE. ISOLATE FROM INCOMPATIBLE SUBSTANCES. PROTECT FROM LIGHT. AVOID DUST FORMATION AND CONTROL IGNITION SOURCES.

Other Precautions:EMPLOY GROUNDING, VENTING AND EXPLOSION RELIEF PROVISIONS IN ACCORD WITH ACCEPTED ENGINEERING PRACTICES

IN ANY

PROCESS CAPABLE OF GENERATING DUST &/OR STATIC ELECTRICITY. EMPTY ONLY INTO INERT OR NON- FLAMMABLE ATMOSPHERE. CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS EVEN WHEN EMPTY.

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

Respiratory Protection:PERSONAL RESPIRATORS (NIOSH APPROVED): FOR CONDITIONS OF USE WHERE EXPOSURE TO DUST OR MIST IS APPARENT, A HALF-FACE DUST/MIST RESPIRATOR MAY BE WORN. FOR EMERGENCIES OR INSTANCES WHERE EXPOSURE LEVEL S NOT KNOWN, USE FULL-FACE POSITIVE-PRESSURE, AIR-SUPPLIED RESPIRATOR. WARNING: AIR-PURIFYING RESPIRATORS DON'T PROTECT WORKERS IN OXYGEN-DEFICIENT ATMOSPHERES.

Ventilation:A SYSTEM OF LOCAL&/OR GENERAL EXHAUST IS RECOMMENDED TO KEEP EMPLOYEE EXPOSURES AS LOW AS POSSIBLE.

Protective Gloves:WEAR PROTECTIVE GLOVES.

Eye Protection:USE CHEMICAL SAFETY GOGGLES.

Other Protective Equipment:MAINTAIN EYE WASH FOUNTAIN AND QUICK-DRENCH FACILITIES IN WORK AREA. WEAR PROTECTIVE GLOVES AND CLE

AN BODY-COVERING CLOTHING.

Work Hygienic Practices:PRESENCE OF YELLOW PHOSPHORUS AS AN IMPURITY WILL CHANGE NECESSARY PROTECTIVE EQUIPMENT.

Supplemental Safety and Health

LOCAL EXHAUST VENTILATION IS GENERALLY PREFERRED BECAUSE IT CAN CONTROL THE EMISSIONS OF THE CONTAMINANT AT ITS SOURCE, PREVENTING DISPERSION OF IT INTO THE GENERAL WORK AREA.

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

HCC:F8

Spec Gravity:2.34 @ 20C/4C

Appearance and Odor:RED TO VIOLE T POWDER, ODORLESS.

Percent Volatiles by Volume:@21C(70F):0

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

Stability Indicator/Materials to Avoid:YES

INCOMPATIBILITIES: HALOGENS, HALIDES, SULFUR, OXIDIZING MATERIALS AND ALKALIS (FORMS PHOSPHINE).

Stability Condition to Avoid:STABLE UNDER ORDINARY CONDITIONS OF USE AND STORAGE. HEAT, FLAME, IGNITION SOURCES, SHOCK, FRICTION, INCOMPATIBLES.

Hazardous Decomposition Products:WHITE PHOSPHOROUS, OXIDES OF PHOSPH

OROUS, PHOSPHINE, AND PHOSPHORIC ACID (IF WATER IS PRESENT)  
MAY BE RELEASED IF THIS MATERIAL IS HEATED TO DECOMPOSITION.  
Conditions to Avoid Polymerization:WILL NOT OCCUR.

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

Toxicological Information:NO LD50/LC50 INFORMATION FOUND RELATING TO  
NORMAL ROUTES OF OCCUPATIONAL EXPOSURE.

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

Ecological:NO INFORMATION FOUND.

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

Waste Disposal Methods:WHATEVER CANNOT BE SAVED FOR RECOVERY OR  
RECYCLING SHOULD BE HANDLED AS HAZARDOUS WASTE AND SENT TO A RCRA  
APPROVED WASTE FACILITY. PROCESSING, USE OR CONTAMINATION OF THIS  
PRODUCT MAY CHANGE THE WASTE MANAGEMENT OPTIONS. DISPOSE OF  
CONTAINER & UNUSED CONTENTS IN ACCORDANCE WITH FEDERAL, STATE & LOCAL  
REQUIREMENTS.

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

Transport Information:PROPER SHIPPING NAME: PHOSPHORUS, AMORPHOUS, 4.1,  
UN1338, PG III.

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

SARA Title III Information:SARA 311/312: ACUTE- YES, CHRONIC- YES,  
FIRE- YES, PRESSURE- NO. LISTED ON SARA 313. SARA 302, R1 1, TPQ  
100.

Federal Regulatory Information:TSCA: YES. EC: YES.

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