

MALLINCKRODT BAKER INC. SUB OF MALLINCKRODT CHEMICAL -- COBALT CHLORIDE:  
PRODUCT CODE 1670 OR 4532 -- 6810-00-227-0409

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

Product ID:COBALT CHLORIDE: PRODUCT CODE 1670 OR 4532

MSDS Date:12/08/1996

FSC:6810

NIIN:00-227-0409

MSDS Number: CKHFL

=== Responsible Party ===

Company Name:MALLINCKRODT BAKER INC. SUB OF MALLINCKRODT CHEMICAL

Address:222 RED SCHOOL LANE

Ci

ty:PHILLIPSBURG

State:NJ

ZIP:08865

Country:US

Info Phone Num:800-582-2537

Emergency Phone Num:(800)424-9300

Resp. Party Other MSDS Num.:C4928

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:COBALT(II) CHLORIDE

CAS:7646-79-9

RTECS #:GF9800

000

Minumum % Wt:90.

Maxumum % Wt:100.

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

LD50 LC50 Mixture:ORAL RAT LD50 = 80 MG/KG

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

Health Hazards Acute and Chronic:INHALATION: CAUSES IRRITATION TO THE  
RESPIRATORY TRACT, RESPIRATORY HYPERSENSITIVITY, ASTHMA. INHALATION  
OF COBALT DUST AND FUMES IS ASSOCIATED WITH AN INCREASE INCIDENCE  
OF LUNG DISEASE. INGESTION: T OXIC. MAY HAVE ACCUMULATIVE TOXIC  
ACTION W

HERE ELIMINATION CANNOT KEEP PACE WITH ABSORPTION. LARGE AMOUNTS DEPRESS ERYTHROCYTE PRODUCTION. SKIN: CAUSES IRRITATION TO SKIN. EYE CONTACT: CAUSES IRRITATION. CHRONIC EXPOSURE: REPEATED ORAL ADMINISTRATION MAY PRODUCE GOITER AND REDUCED THYROID ACTIVITY. PROLONGED OR REPEATED SKIN EXPOSURE MAY CAUSE DERMATITIS. CHRONIC EXPOSURE ASSOCIATED WITH KIDNEY, LIVER, HEART AND LUNG DISEASE.

Explanation of Carcinogenicity: COBALT II CHLORIDE, CAS # 7646-79-9, IARC 2B. COBA

LT AND ITS COMPOUNDS HAVE BEEN SHOWN TO CAUSE CANCER IN LABORATORY ANIMALS.

Effects of Overexposure: INHALATION: COUGHING, SHORTNESS OF BREATH, NAUSEA. INGESTION: ABDOMINAL PAIN, NAUSEA, VOMITING, FLUSHING OF FACE AND EARS, MILD HYPOTENSION, RASH, RINGING IN EARS.

Medical Cond Aggravated by Exposure: PERSONS WITH PRE-EXISTING SKIN DISORDERS OR EYE PROBLEMS, IMPAIRED LIVER, KIDNEY OR RESPIRATORY FUNCTION MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THIS 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: INDUCE VOMITING IMMEDIATELY AS DIRECTED BY MEDICAL PERSONNEL. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION. EYES: IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES, LIFTING LIDS. GET MEDICAL ATTENTION IMMEDIATELY.

Y. SKIN: WIPE OFF EXCESS THEN IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. GET ATTENTION IMMEDIATELY.

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

Extinguishing Media: USE ANY MEANS SUITABLE FOR EXTINGUISHING SURROUNDING FIRE.

Fire Fighting Procedures: USE PROTECTIVE CLOTHING AND BREATHING EQUIPMENT APPROPRIATE FOR SURROUNDING FIRE.

Unusual Fire/Explosion Hazard: NOT CONSIDERED TO BE AN EXPLOSION HAZARD. NOT CONSIDERED TO BE A FI

RE HAZARD.

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

Spill Release Procedures: VENTILATE AREA. WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT. SPILLED: SWEEP UP & CONTAINERIZE FOR RECLAMATION OR DISPOSAL. VACUUMING OR WET SWEEPING MAY BE USED TO MINIMIZE DUST DISPERSAL. CERCLA REQUIRES REPORTING SPILLS & RELEASES TO SOIL, WATER AND AIR IN EXCESS OF REPORTABLE QUANTITIES. THE TOLL FREE NUMBER FOR THE US COAST GUARD NATIONAL RESPONSE CENTER IS 8

00-424-8802.

Neutralizing Agent: NO DATA PROVIDED BY RESPONSIBLE PARTY.

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

Handling and Storage Precautions: KEEP IN A TIGHTLY CLOSED CONTAINER, STORED IN A DRY, COOL, WELL-VENTILATED AREA. PROTECT AGAINST PHYSICAL DAMAGE. ISOLATE FROM INCOMPATIBLE SUBSTANCES. WASH HANDS BEFORE EATING AND DO NOT EAT, DRINK OR SMOKE IN WORKPLACE.

Other Precautions: CONTAINERS OF THIS PRODUCT RETAIN PRODUCT RESIDUES (DUSTS, SOLIDS); O

BSERVE ALL WARNINGS AND PRECAUTIONS LISTED FOR THE PRODUCT.

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

Respiratory Protection: HALF-FACE HIGH EFFICIENCY RESPIRATOR MAY BE WORN FOR UP TO 10 TIMES THE EXPOSURE LIMIT. A FULL-FACE HIGH EFFICIENCY RESPIRATOR MAY BE WORN UP TO 50 TIMES THE EXPOSURE LIMIT. FOR EMERGENCIES OR WHERE EXPSOURE LIMITS ARE NOT KNOWN, A FULL-FACEPIECE, POSITIVE PRESSURE, AIR SUPPLIED RESPIRATOR MAY BE USED.

Ventilation: LOCAL

/GENERAL EXHAUST IS RECOMMENDED TO KEEP EMPLOYEE EXPSOURES BELOW THE AIRBORNE EXPOSURE LIMITS.

Protective Gloves: WEAR PROTECTIVE GLOVES.

Eye Protection: CHEMICAL SAFETY GOGGLES AND/OR FULL FACE SHIELD.

Other Protective Equipment: MAINTAIN EYE WASH FOUNTAIN AND QUICK-DRENCH FACILITIES IN WORK AREA. WEAR BODY-COVERING CLOTHING.

Work Hygienic Practices: WASH CLOTHING BEFORE REUSE. THOROUGHLY CLEAN SHOES BEFORE REUSE.

Supplemental Safety and Health

WARNING: AIR-PURIFYING RESPIRATORS DO NOT

PROTECT IN OXYGEN-DEFICIENT  
ATMOSPHERE.

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

HCC:N1  
NRC/State Lic Num:NOT RELEVANT  
Boiling Pt:=110.C, 230.F  
B.P. Text:LOSES 6H2O  
Melt/Freeze Pt:=86.C, 186.8F  
Vapor Pres:40 MM HG @ 770C  
Spec Gravity:1.92  
pH:4.6  
Evaporation Rate & Reference:NO INFORMATION FOUND  
Solubility in Water:APPRECIABLE  
Appearance and Odor:ODORLESS, ROSE-RED CRYSTALS.  
Percent Volatiles by Volume:0

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

Stability Indicator/Materials to Avoid:YES  
STRONG OXIDIZERS, STRONG MINERAL ACIDS, TERT-BUTYL HYDROPEROXIDE,  
POTASSIUM AND METAL HALIDES, SODIUM DISPERSIONS.  
Stability Condition to Avoid:INCOMPATIBLES.  
Hazardous Decomposition Products:EMITS TOXIC CHLORIDES AND POSSIBLY  
COBALT FUMES WHEN HEATED TO DECOMPOSITION. COBALT OXIDE FUMES MAY  
FORM IN FIRE.  
Conditions to Avoid Polymerization:INCOMPATIBLES.

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

Toxi  
cological Information:ORAL RAT LD50: 80 MG/KG. INVESTIGATED AS A  
TUMORIGEN, MUTAGEN, REPRODUCTIVE FACTOR. CARCINOGENICITY: COBALT  
AND ITS COMPOUNDS HAVE BEEN SHOWN TO CAUSE CANCER IN LABORATORY  
ANIMALS.

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

Ecological:ENVIRONMENTAL FATE: NO INFORMATION FOUND. ENVIRONMENTAL  
TOXICITY: NO INFORMATION FOUND.

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

Waste Disposal Methods:WHATEVER CANNOT BE

USED FOR RECOVERY OR  
RECYCLING SHOULD BE MANAGED IN AN APPROPRIATE & APPROVED WASTE  
DISPOSAL FACILITY. PROCESSING, USE OR CONTAMINATION OF THIS PRODUCT  
MAY CHANGE THE WASTE MANAGEMEN T OPTIONS. DISPOSE OF CONTAINER &  
UNUSED CONTENTS IN ACCORDANCE WITH FEDERAL, STATE & LOCAL REQUIRE  
MENTS.

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

Transport Information:NOT REGULATED.

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

SARA Title  
III Information:SECTIONS 302 TPQ & RQ: NOT LISTED. SECTION  
313: NOT LISTED. SARA 311/312: ACUTE-YES, CHRONIC-YES, FIRE-NO,  
PRESSURE-NO, REACTIVITY-NO.  
Federal Regulatory Information:CERCLA:1(?). RCRA 261.33-NO, TSCA  
8(D)-NO. CHEMICAL WEAPONS CONVENTION: NO. TSCA 12(B): NO, CDTA: NO.  
State Regulatory Information:NO DATA PROVIDED BY RESPONSIBLE PARTY.

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

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cies):  
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