

LITTON SYSTEMS INC/ELECTRONIC DEVICES DIV -- LITTON PN L5839 SAMARIUM COBALT
MAGNETS -- 5960-01-094-9540

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

Product ID:LITTON PN L5839 SAMARIUM COBALT MAGNETS
MSDS Date:04/15/1989
FSC:5960
NIIN:01-094-9540
MSDS Number: BNKMC
=== Responsible Party ===
Company Name:LITTON SYSTEMS INC/ELECTRONIC DEVICES DIV
Address:960 INDUSTRIAL RD
City:SAN CARLOS
State:CA
ZIP:94070-4116
Country:US
Info Phone Num:(415) 591-8411
Emergency Phone Num
:(415) 591-8411
CAGE:80080
=== Contractor Identification ===
Company Name:LITTON ELECTRON DEVICES .
Address:960 INDUSTRIAL RD
Box:City:SAN CARLOS
State:CA
ZIP:94070
Country:US
Phone:650-591-8411
CAGE:80080

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

Ingred Name:COBALT
CAS:7440-48-4
RTECS #:GF8750000
Other REC Limits:0.05 PPM
OSHA PEL:0.1 MG/M3;AS CO
ACGIH TLV:0.05 MG/M3;DUST 9293

Ingred Name:SAMARIUM
CAS:7440-19-9

Ingred Name:PRASEODYMIUM
CAS:7440-10-0

Ingred Name:O

OTHER RARE EARTHS

Ingredient Name: RED IRON OXIDE/IRON (III) OXIDE/FERRIC OXIDE/YELLOW FERRIC
OXIDE/METAL OXIDE/YELLOW IRON OXIDE/IRON OXIDE PIGMENT/IRON
CAS: 1309-37-1
RTECS #: NO7400000
OSHA PEL: 10 MG/M3 (FE)
ACGIH TLV: 5 MG/M3 (FE), B2; 9293

Ingredient Name: COPPER (DUST & MIST), BRONZE POWDER
CAS: 7440-50-8
RTECS #: GL5325000
Other REC Limits: 1 MG(CU)/M3 (DUST)
OSHA PEL: 0.1 MG(CU)/M3 (FUME)
ACGIH TLV: 0.2 MG/M3 (FUME)
EPA Rpt Qty: 5000 LBS
DOT Rpt Qty: 5000 LBS

Ingredient Name: ZIRCONIUM
CAS: 7440-67-7
RTECS #:
ZH7070000
OSHA PEL: 5 MG/CUM
ACGIH TLV: 5 MG/CUM

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

Routes of Entry: Inhalation: YES Skin: YES Ingestion: NO
Reports of Carcinogenicity: NTP: NO IARC: NO OSHA: NO
Health Hazards Acute and Chronic: INHALATION: UPPER RESPIRATORY TRACT
IRRITATION. SKIN: ALLERGIC REACTION
Explanation of Carcinogenicity: NONE
Effects of Overexposure: INHALATION: UPPER RESPIRATORY TRACT IRRITATION.
SKIN: ALLERGIC REACTION.

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

First Aid: OBTAIN MEDICAL ATTENTION IN ALL CASES.

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

Extinguishing Media: DRY NITROGEN OR ARGON OR SMOOTHER W/ DRY CHEMICAL
Fire Fighting Procedures: DON'T USE WATER OR HALON AGENTS ON FIRE.
POWDER MAY REIGNITE AFTER FIRES ARE EXTINGUISHED. BURNS RAPIDLY &
INTENSELY.
Unusual Fire/Explosion Hazard: FINE METAL POWDERS PRODUCED BY DRY
GRINDING/MACHINING MAY CAUSE EXPLOSION. DRY POWD

ER OR GRINDING
SLUDGE MAY IGNITE SPONTANEOUSLY IN AIR OR OXYGEN.

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

Other Precautions:DON'T GRIND, CUT, FILE, SAW OR OTHERWISE CREATE DUST
FROM MAGNETIC MATERIAL USED AS A PART OF MICROWAVE TUBES.

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

Work Hygienic Practices:USE GOOD PERSONAL HYGIENE
Supplemental Safety and Health

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

Melt/
Freeze Pt:M.P/F.P Text:2417F
Spec Gravity:7.0-8.5
Solubility in Water:INSOLUBLE
Appearance and Odor:METALLIC SILVER/LIGHT GREY METAL, ODORLESS.

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

Stability Indicator/Materials to Avoid:YES
STRONG OXIDIZING AGENTS, ACIDS, OXYGEN & HALOGENATED HYDROCARBONS.
Hazardous Decomposition Products:RARE EARTH (SAMARIUM COLBALT) MAGNET
POWDER WILL LIBERATE HYDROGEN WHEN EXPOSED TO WATER.

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

Waste Disposal Methods:RECYCLING OF MAGNETS USED IN MICROWAVE TUBES IS
RECOMMENDED. RETURN TO MANUFACTURER FOR RECYCLING, OTHERWISE
DISPOSE IN ACCORDANCE W/FEDERAL, STATE & LOCAL REGULATIONS.

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