

LITTON SYSTEMS INC/ELECTRONIC DEVICES DIV -- LITTON PN L5838 SAMARIUM COBALT  
MAGNET -- 5960-01-096-3457

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

Product ID:LITTON PN L5838 SAMARIUM COBALT MAGNET  
MSDS Date:04/15/1989  
FSC:5960  
NIIN:01-096-3457  
MSDS Number: BNKMF  
=== Responsible Party ===  
Company Name:LITTON SYSTEMS INC/ELECTRONIC DEVICES DIV  
Address:960 INDUSTRIAL RD  
City:SAN CARLOS  
State:CA  
ZIP:94070-4  
116  
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:RARE EARTH

Ingred 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

Ingred 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 Q

ty:5000 LBS

Ingred Name:ZIRCONIUM

CAS:7440-67-7

RTECS #:ZH7070000

OSHA PEL:5 MG/CUM

ACGIH TLV:5 MG/CUM

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===== 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.

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

First Aid:OBTAIN MEDICAL ATTENTION IN ALL CASES.

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

Extinguishing Media:DRY NITROGEN OR ARGON OR SMOTHER 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 POWDER OR GRINDING  
SLUDGE MAY IGNITE SPONTANEOUSLY IN AIR OR OXYGEN.

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

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Exposure Controls/Personal Protection  
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Work Hygienic Practices:USE GOOD PERSONAL HYGIENE  
Supplemental Safety and Health

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Physical/Chemical Properties  
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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.

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Stability and Reactivity Data  
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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 T  
O WATER.

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Disposal Considerations  
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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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