

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 Qty: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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