

STELLITE COATINGS -- STELLITE 6, P1060 -- 3439-00-056-0034

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

Product ID:STELLITE 6, P1060

MSDS Date:01/15/1991

FSC:3439

NIIN:00-056-0034

MSDS Number: BSYJF

=== Responsible Party ===

Company Name:STELLITE COATINGS

Address:1201 EISENHOWER DR NORTH

Box:807

City:GOSHEN

State:IN

ZIP:46526-5396

Country:US

Info Phone Num:219-534-2585

Emergency Phone Num:219-534-2585

CAGE:STELL

=== Contractor Identification ===

Company Name:STELLITE CO

ATINGS

Address:1201 EISENHOWER DR NORTH

Box:807

City:GOSHEN

State:IN

ZIP:46526-5396

Country:US

Phone:219-534-2585

CAGE:STELL

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

Ingred Name:BORON

CAS:7440-42-8

RTECS #:ED3750000

OSHA PEL:N/K

ACGIH TLV:N/K

Ingred Name:CARBON

CAS:7440-44-0

RTECS #:FF5250100

Fraction by Wt: 1.15%

OSHA PEL:10 MG/M3 TDUST

ACGIH TLV:2 MG/M3 TDUST

Ingred Name:COBALT (SARA III)

CAS:7440-48-4

RTECS #:GF8750000

Fraction by Wt: BALANCE

OSHA PEL:0.05 M

G/M3
ACGIH TLV:0.05 MG/M3 DUST

Ingred Name:CHROMIUM (SARA III)
CAS:7440-47-3
RTECS #:GB4200000
Fraction by Wt: 27.75%
OSHA PEL:1 MG/M3
ACGIH TLV:0.5 MG/M3
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:COPPER (SARA III)
CAS:7440-50-8
RTECS #:GL5325000
OSHA PEL:0.1MG/M3 FUME;1 DUST
ACGIH TLV:0.2MG/M3 FUME;1 DUST
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

Ingred Name:IRON (III) OXIDE; (IRON OXIDE)
CAS:1309-37-1
RTECS #:NO7400000
Fraction by Wt: 3% (MAX)
OSHA PEL:10 MG/M3 (FE)
ACGIH TLV:5 MG/M3
(FE)

Ingred Name:MANGANESE (SARA III). TLV:5 MG/M3 DUST;3 MG/M3 FUME STEL.
CAS:7439-96-5
RTECS #:OO9275000
Fraction by Wt: 1% (MAX)
OSHA PEL:5 MG/M3 DUST, 5 C
ACGIH TLV:SEE INGREDIENT NAME

Ingred Name:MOLYBDENUM
CAS:7439-98-7
RTECS #:QA4680000
Fraction by Wt: 1% (MAX)
OSHA PEL:10 MG/M3 TDUST
ACGIH TLV:10 MG/M3

Ingred Name:NICKEL (SARA III)
CAS:7440-02-0
RTECS #:QR5950000
Fraction by Wt: 3% (MAX)
OSHA PEL:1 MG/M3
ACGIH TLV:1 MG/M3

Ingred Name:SILICON
CAS:7440-21-3
RTECS #:VW0400000
Fraction

by Wt: 1.15%
OSHA PEL:10MG/M3 TDUST;5 RESP
ACGIH TLV:10MG/M3 TDUST

Ingred Name:VANADIUM (SARA III)
CAS:7440-62-2
RTECS #:YW1355000
Fraction by Wt: 4.5%
OSHA PEL:0.05 MG/M3 (V205)
ACGIH TLV:0.05 MG/M3 (V205)

Ingred Name:TUNGSTEN
CAS:7440-33-7
RTECS #:YO7175000
OSHA PEL:5 MG/M3;10 STEL
ACGIH TLV:5 MG/M3;10 STEL

Ingred Name:SUPDAT:MONOGRAPHS ON THE EVALUATION OF CARCINOGENIC RISK OF
CHEMICALS TO MAN, VOL 52, PG 363, 1991:GRP 2B.
RTECS #:9999999ZZ

Ingred Name:FIRST AID PROC:MED ASSISTANCE.
EYES:FLUSH W/COPIOUS AMTS OF
CLEAN WATER FOR AT LST 15 MINS. IF IRRIT PERSISTS (ING 15)
RTECS #:9999999ZZ

Ingred Name:ING 14:OBTAIN MED ASSISTANCE. CONT LENSES SHOULD NOT BE
WORN IF WORKING W/METAL DUSTS/PWDRS. MED SURVEILLANCE: (ING 16)
RTECS #:9999999ZZ

Ingred Name:ING 15:LUNG FUNCTION TESTS, CHEST X-RAYS & ROUTINE PHYSICAL
EXAMS MAY BE USEFUL TO DETERMINE EFTS OF DUST/FUME EXPOSURE.
RTECS #:9999999ZZ

Ingred Name:SPILL PROC:IN WASTE CNTNR. METAL PWDRS/DUSTS MAY HAVE
SIGNIFI
CANT IMPACT ON AIR & WATER QUALITY. AIRBORNE (ING 18)
RTECS #:9999999ZZ

Ingred Name:ING 17:EMISSIONS, SPILLS & RELS TO ENVIRON (DISCHARGE TO
STREAMS, SEWER SYS, GROUND WATER, SURF SOIL, ETC) (ING 19)
RTECS #:9999999ZZ

Ingred Name:ING 18:SHOULD BE CONTROLLED IMMED. IF SUCH POTNTL FOR
SPILL/RELS EXISTS IT IS ADVISABLE TO DEVELOP EMER SPILL (ING 20)
RTECS #:9999999ZZ

Ingred Name:ING 19:RESPONSE PLAN.
RTECS #:9999999ZZ

Ingred Name:OTHER PREC:SOURCES OF IGNITION.
RTECS #:9999999ZZ

Ingred

Name:VENT:TO ELEMENTS IDENTIFIED IN ING SECTION CAN BE BEST
DETERMINED BY HAVING AIR SAMPLES TAKEN IN EMPLOYEE BRTHG (ING 23)
RTECS #:9999999ZZ

Ingred Name:ING 22:ZONE, WORK AREA OR DEPARTMENT.
RTECS #:9999999ZZ

Ingred Name:OTHER PROT EQUIP:APPROPRIATE TO CIRCUMSTANCES OF EXPOSURE.
RTECS #:9999999ZZ

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

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.
Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO
Reports of Carci
nogenicity:NTP:YES IARC:YES OSHA:NO
Health Hazards Acute and Chronic:INHAL:DUST, FUME OR POWDER MAY RESULT
FROM THERMAL SPRAYING, WELDING, METALLIZING OR SIMILAR OPERATIONS
WHICH GENERATE AIRBORNE METAL PARTICULATE. SKIN:CONTACT W/THIS
MATERIAL MAY CAUSE, IN SOME SENSI TIVE INDIVIDUALS ALLERGIC
RESPONSE IF ELEMENTS SUCH AS CHROMIUM, COBALT, COPPER & NICKEL ARE
PRESENT. (EFTS OF OVEREXP)
Explanation of Carcinogenicity:CHROMIUM:IARC MONOGRAPHS, VOL 49, PG 49,
1990:GRP
1. NTP 7TH ANNUAL RPT ON CARCINS, 1992:KNOWN TO BE CARCIN.
(SUPP DATA)
Effects of Overexposure:HLTH HAZ:IN FORM OF METAL OR POWDER, CONTACT OR
ABRASION MAY ALSO CAUSE IRRITATION OR DERMATITIS. EYES:PARTICULATE
METAL (DUST, FUME OR POWDER) MAY BE DANGEROUS TO EYE & SURROUNDING
TISSUE. CONTACT NE HC FOR FURTHER INFORMATION .
Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:INHAL:BRTH
G DFCLTY REQS REMOVAL TO FRESH AIR. IF BRTHG HAS
STOPPED, PERFORM ARTF RESP & OBTAIN MED ASSISTANCE AT ONCE.
INGEST:CAN BE TREATED BY HAVING AFFECTED PERS SWALLOW LG QTYS OF
WATER & ATTEMPTI NG TO INDUCE VOMIT IF CONSCIOUS. OBTAINMED
ASSISTANCE AT ONCE. SKIN:CUTS & ABRASIONS CAN BE TREATED BY STD
FIRST AID. CONTAM CAN BE REMOVED BY WASHING W/SOAP & WATER. IF
IRRIT PERSISTS OBTAIN(ING 14)

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

Flash Point:NO

NE

Lower Limits:NONE

Upper Limits:NONE

Extinguishing Media:THIS ALLOY IS NONCOMBUST. USE EXTING MEDIA APPROP TO SURROUND FIRE. TO EXTING METAL PWDR FIRE USE DRY SAND, DRY (SUPDAT)

Fire Fighting Procedures:USE NIOSH/MSHA APPRVD SCBA & FULL PROT EQUIP . IF THIS PWDR IS ATTRITIONED/REDUCED IN PARTICLE SIZE, CAUT MUST BE USED TO PVNT FIRE BY AVOIDING (SUPDAT)

Unusual Fire/Explosion Hazard:NO UNUSUAL FIRE OR EXPLOSION HAZARDS ARE ASSOCIATED W/THIS MATERIAL.

===== Ac

cidental Release Measures =====

Spill Release Procedures:IN PWDR/DUST FORM, CLEAN-UP SHOULD BE CONDUCTED W/VACUUM SYS UTILIZING HIGH EFFICIENCY PARTICULATE AIR FILTRATION SYS. CAUT SHOULD BE TAKEN TO MIN AIRBORN GENERATION OF PWDR/DUST & AVOID CONTAM OF AIR & WATER. PROPERLY LBL ALL MATLS COLLECTED(ING 17)

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:THIS P ROD MUST BE HNDLD ACCORDING TO SIZE, SHAPE & QTY OF MATL INVOLVED. PWDRS SHOULD BE MOVED/TRANSPORTED TO MIN SPILL/RELS POTNTL.

Other Precautions:STORE METAL & METAL PWDR IN DRY AREA. DO NOT STORE ADJACENT TO MINERAL ACIDS. THIS IS NOT REGARDED AS FLAMM MATL, HOWEVER, IF THIS PWDR IS ATTRITIONED/REDUCED IN PARTICULAR SIZE, CAUT SHOULD BE TAKEN TO KEEP AWAY FROM FLAMES & (ING 21)

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

Respiratory Protection:USE NIOSH/MSHA APPROVED RESPIRATORS AS SPECIFIED BY INDUSTRIAL HYGIENIST OR QUALIFIED SAFETY PROFESSIONAL. LUNG FUNCTION TESTS ARE RECOMMENDED FOR USERS OF NEGATIVE PRESSURE DEVICES.

Ventilation:LOC EXHST VENT SHOULD BE USED TO CONTROL EXPOS TO AIRBORNE DUST & FUME WHENEVER POSS. ENVIRON SURVEILLANCE:EXPOS(ING 22)

Protective Gloves:IMPERVIOUS GLOVES .

Eye Protection:CHEMICAL SAFETY GOGGLES .

Other Protective Equipment:PROT CLTHG SUCH AS UNIFORMS, DISPOSABLE COVERALLS, SFTY SHOES,

ETC MAY BE REQD DURING METAL HNDLG
OPERATIONS AS (ING 24)

Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.

Supplemental Safety and Health

EXT MEDIA:GRAPHITE/OTHER CLASS "D" FIRE EXTING PWDR. FIRE FIGHT
PROC:SOURCES OF IGNIT, FLAMES, ETC. HAZ DECOMP PROD:OPERATIONS.
REFER TO ING SECTION FOR PELS. EXPLAN OF CARCIN:NICKEL:IARC
MONOGRAPHS, SUPP, VOL 7, PG 264, 1987:GRP 2B. NTP 7TH ANNUAL RPT
ON CARCINS, 1992:ANTIC TO BE A CARCIN. COBALT:IARC (ING 13)

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Physical/Chemical Properties =====

Melt/Freeze Pt:M.P/F.P Text:2475F,1357C

Spec Gravity:8.38 (H*2O=1)

Solubility in Water:NONE

Appearance and Odor:POWDER, GRAY COLOR; NO ODOR.

Percent Volatiles by Volume:NONE

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

Stability Indicator/Materials to Avoid:YES

AVOID CONT W/MINERAL ACIDS & OXIDIZING AGENTS WHICH MAY GENERATE
HYDROGEN GAS; EVOLUTION OF HYDROGEN MAY BE EXPLO HAZ.

Stability Condition to Avoid:NONE SPECIF
IED BY MANUFACTURER.

Hazardous Decomposition Products:VARIOUS ELEMENTAL METALS & METAL
OXIDES MAY BE GENERATED DURING THERMAL SPRAYING, WELDING,
METALLIZING/SIMILAR (SUPDAT)

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

Waste Disposal Methods:PRIOR TO DISP CONSIDER IF MATL HAS RECOVERY
VALUE. LOC, STATE/FED REGS MAY REQ SPECIFIC LABELING, PACKING,
STOR, TRANSPORTATION & DISP PROCS. CONT ENVIRON ENGINEER/CONSULTANT
FAMILIAR W/WASTE DISP REG S.

Disclai

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