

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 COATINGS
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:744

0-48-4
RTECS #:GF8750000
Fraction by Wt: BALANCE
OSHA PEL:0.05 MG/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
Fr
action 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 2
B.
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:S

PILL PROC:IN WASTE CNTNR. METAL PWDRS/DUSTS MAY HAVE
SIGNIFICANT 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 Carcinogenicity: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 SENSITIVE INDIVIDUALS ALLERGIC
RESPONSE IF ELEMENTS SUCH AS CHROMIUM, COBALT, COPPER & NICKEL ARE
PRESENT. (EFTS OF OVEREXP)

Explanation of Carcin

ogenicity: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.

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

First Aid:INHAL:BRTHG 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:NONE

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 HAZ
ARDS ARE
ASSOCIATED W/THIS MATERIAL.

=====
Accidental 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 PROD 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:PRO

T 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)

=====
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 HYD

ROGEN MAY BE EXPLO HAZ.

Stability Condition to Avoid:NONE SPECIFIED 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 ENVIRO N ENGINEER/CONSULTANT FAMILIAR W/WASTE DISP REG S.

Disclaimer (provided with this information by the compiling agencies): This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.