

SULZER METCO /WESTBURY/ INC -- SP 12804, AE 7439, SPM 4-2073, SULZER METCO 5803 --
3439-01-479-2790

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

Product ID:SP 12804, AE 7439, SPM 4-2073, SULZER METCO 5803

MSDS Date:07/09/1996

FSC:3439

NIIN:01-479-2790

Status Code:A

MSDS Number: CLJQH

=== Responsible Party ===

Company Name:SULZER METCO /WESTBURY/ INC

Address:1101 PROSPECT AVE

City:WESTBURY

State:NY

ZIP:11590

-2724

Country:US

Info Phone Num:516-334-1300

Emergency Phone Num:516-334-1300

Resp. Party Other MSDS Num.:50-502

Preparer's Name:NOT PROVIDED

CAGE:01FK3

=== Contractor Identification ===

Company Name:SULZER METCO (US) INC

Address:1101 PROSPECT AVE

Box:City:WESTBURY

State:NY

ZIP:11590-2724

Country:US

Phone:516-334-1300

CAGE:01FK3

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

Ingred Name:IRON

CAS:7439-89-6

RTECS #:NO4565500

< Wt:1.

Other REC Limits:NOT PROVIDED

OSHA PEL

:10 MG/M3 (TDUST)
ACGIH TLV:5 MG/M3 (FUME)

Ingred Name:BORON
CAS:7440-42-8
RTECS #:ED7350000
< Wt:1.
Other REC Limits:NOT PROVIDED
OSHA PEL:10 MG/M3 (TDUST)
ACGIH TLV:10 MG/M3 (TDUST)

Ingred Name:MOLYBDENUM
CAS:7439-98-7
RTECS #:QA4680000
= Wt:1.
Other REC Limits:NOT PROVIDED
OSHA PEL:10 MG/M3 (TDUST)
ACGIH TLV:10 MG/M3

Ingred Name:COPPER
CAS:7440-50-8
RTECS #:GL5325000
= Wt:1.
Other REC Limits:NOT PROVIDED
OSHA PEL:1 MG/M3
ACGIH TLV:1 MG/M3
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

Ingred Name:TUNGSTEN CARBIDE
CAS:12070-12-1
RTECS #:YO7250000
= Wt:65.
Other REC Limits:NOT PROVIDED
OSHA PEL:1 MG/M3
OSHA STEL:3 MG/M3
ACGIH TLV:1 MG/M3
ACGIH STEL:3 MG/M3

Ingred Name:CHROMIUM
CAS:7440-47-3
RTECS #:GB4200000
= Wt:11.
Other REC Limits:NOT PROVIDED
OSHA PEL:1 MG/M3
ACGIH TLV:0.5 MG/M3
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:NICKEL
CAS:7440-02-0
RTECS #:QR5950000
= Wt:11.5
Other REC Limits:NOT PROVIDED
OSHA PEL:1 MG/M3
ACGIH TLV:1 MG/M3
EPA Rpt Qty:100 LBS
DOT Rpt Qty:100 LBS

Ingred Name:COBALT (MSDS CAS # 7440-48-2 IS INVALID.)

CAS:7440-48-4

RTECS #:GF8750000

= Wt:8.

Other REC Limits:NOT PROVIDED

OSHA PEL:0.1 MG/M3

ACGIH TLV:0.02 MG/M3

Ingred Name:ORGANIC BINDER

= Wt:1.

Other REC Limits:NOT PROVIDED

OSHA PEL:15 MG/M3 (TDUST)

ACGIH TLV:10 MG/M3 (TDUST)

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

LD50 LC50 Mixture:NOT RELEVANT

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:NO

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Health Hazards Acute and Chronic:EYE CONTACT: POSSIBLE CONJUNCTIVAL IRRITATION, LACRIMATION. SKIN CONTACT: POSSIBLE IRRITATION, DERMATITIS, ECZEMA, SENSITIZATION OR CHROME LESIONS, DISCOLORATION TO THE HAIR AND SKIN. INHALATION: POSSIBLE IRRITATION TO THE RESPIRATORY SYSTEM, NASAL MUCOUS MEMBRANE IRRITATION OR ULCERATION, METALLIC/SWEET TASTE, COUGH, WHEEZING, SHORTNESS OF BREATH. INGESTION: POSSIBLE IRRITATION TO THE RESPIRATORY SYSTEM AND GASTROINTESTINAL TRACT, LOSS

OF MUSCULAR COORDINATION, CONFUSION AND CONVULSIONS.

Explanation of Carcinogenicity:CONTAINS CHROMIUM AND NICKEL.

Effects of Overexposure:EYE CONTACT: POSSIBLE CONJUNCTIVAL IRRITATION, LACRIMATION. SKIN CONTACT: POSSIBLE IRRITATION, DERMATITIS, ECZEMA, SENSITIZATION OR CHROME LESIONS, DISCOLORATION TO THE HAIR AND SKIN. INHALATION: POSSIBLE IRRITATION TO THE RESPIRATORY SYSTEM, NASAL MUCOUS MEMBRANE IRRITATION OR ULCERATION, METALLIC/SWEET TASTE, COUGH, WHEEZING, SHOR

TNESS OF BREATH. INGESTION: POSSIBLE IRRITATION TO THE RESPIRATORY SYSTEM AND GASTROINTESTINAL TRACT, LOSS OF MUSCULAR COORDINATION, CONFUSION AND CONVULSIONS.

Medical Cond Aggravated by Exposure:CONSULT A PHYSICIAN

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

First Aid:EYE CONTACT: FLUSH EYE WITH WATER FOR AT LEAST 15-20 MINUTES WHILE HOLDING EYELID OPEN. IF IRRITATION PERSISTS, CONSULT A PHYSICIAN. SKIN CONTACT: WASH WITH SOAP AND WATER. IF IRRITATION

PERSISTS, CONSULT A PHYSICIAN. INHALATION: EXPOSE TO FRESH AIR.
CONSULT A PHYSICIAN IF IRRITATION OR RESPIRATORY DISTRESS PERSISTS.
INGESTION: CONSULT A PHYSICIAN.

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

Extinguishing Media:USE CLASS D FIRE EXTINGUISHER

Fire Fighting Procedures:TREAT AS A METALLIC FIRE. USE NIOSH/MSHA
APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE
CLOTHING IF INVOLVED IN A FIRE.

Unusual Fire/Explosion Hazard:FI

NE METAL DUSTS OF MOLYBDENUM ARE

FLAMMABLE AND MAY EXPLODE WHEN EXPOSED TO HEAT, FLAME/OXIDIZERS.
IRON AND CHROMIUM MAY IGNITE IF AIRBORNE IN PRESENCE OF AN IGNITION
SOURCE. TUNGSTEN CARBIDE OXIDIZES ON HEATING IN AIR, BURNS IN
FLUORINE AT ROOM TEMPERATURE. COBALT MAY IGNITE IF AIRBORNE
WITH/WITHOUT IGNITION SOURCE.

===== Accidental Release Measures =====

Spill Release Procedures:VACUUM LOOSE POWDER ONLY WITH VACUUMS EQUIPPED
WITH HEPA FILTER

ATION. VACUUMS APPROPRIATE FOR USE WITH METALLIC

DUSTS SHOULD BE UTILIZED. WIPE THE AREA CLEAN. DO NOT USE WATER FOR
CLEAN UP OPERATIONS. DO NOT SWEEP. AVOID GENERATING AIRBORNE DUST.

Neutralizing Agent:NOT RELEVANT

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

Handling and Storage Precautions:STORE AWAY FROM INCOMPATIBLES. STORE
PRODUCT CONTAINERS IN A WELL-VENTILATED, CLEAN, COOL AND DRY AREA.
STORE IN A MANNER TO MINIMIZE PUNCTURES AND BREAKAGE OF CON
TAINERS.

Other Precautions:AVOID INGESTION, INHALATION AND EXCESSIVE SKIN
CONTACT.

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

Respiratory Protection:A RESPIRATOR APPROVED BY NIOSH WITH FILTER
CARTRIDGES APPROVED FOR DUST/FUMES/MISTS SHOULD BE WORN AT ALL
TIMES DURING THE THERMAL SPRAY PROCESS TO PROTECT THE OPERATOR FROM
EXPOSURE TO DUST AND FUMES . RESPIRATORS MAY ALSO BE WORN WHEN
PRODUCT HANDLING GENERATES DUST.

Ventilation:PRODUCT SHOULD BE USED

WITH THE APPROPRIATE LOCAL EXHAUST VENTILATION PROVIDED.

Protective Gloves:ALUMINIZED, RUBBER OR OTHER APPROPRIATE GLOVES MAY BE WORN AS NECESSARY.

Eye Protection:COMBUSTION SPRAYING SHADE #5, PLASMA SPRAYING 40KW SHADE #9, 40-60KW SHADE10/11

Other Protective Equipment:EAR PROTECTION MUST BE WORN WHEN THE OPERATOR IS SUBJECTED TO EXCESSIVE NOISE LEVELS. (REFER TO THE APPROPRIATE REGULATORY GUIDELINES.) AN ALUMINIZED APRON IS TO BE WORN DURING THE PLASMA SPRAY PROCESS.

Work

Hygienic Practices:NOT PROVIDED

Supplemental Safety and Health

EYE WASH STATIN(S) IS/ARE RECOMMENDED. WASH FACILITIES ARE RECOMMENDED.

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

HCC:N1

NRC/State Lic Num:NOT RELEVANT

Melt/Freeze Pt:M.P/F.P Text:1800-2100 F

Decomp Temp:Decomp Text:NOT PROVIDED

Spec Gravity:(H2O=): 4.4

Solubility in Water:INSOLUBLE

Appearance and Odor:POWDER, NO ODOR

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

WATER, OXIDIZER

S, ALKALIS, SODIUM, AZIDE, ACETYLENE, FLUORINE, CHLORINE TRIFLUORIDE, NITROGEN OXIDES, LEAD DIOXIDE, ACIDS, SULFUR, SELENIUM, WOOD, NICKEL NITRATE, AMMONIUM NITRATE

Stability Condition to Avoid:NOT PROVIDED

Hazardous Decomposition Products:OZONE AND NITRIC OXIDE ARE FORMED BY PLASMA FLAME. WHEN MOLYBDENUM IS HEATED TO DECOMPOSITION, TOXIC FUMES OF MOLYBDENUM ARE EMITTED. ORGANIC BINDER MAY EMIT TOXIC FUMES OF SODIUM OXIDE WHEN HEATED.

===== Toxicological Information =====

Toxicological Information:NOT PROVIDED

===== Ecological Information =====

Ecological:NOT PROVIDED

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

Waste Disposal Methods:EMPTY PRODUCT CONTAINERS, PRODUCT WASTE AND CLEANING MEDIA SHOULD BE STORED AND DISPOSED OF ACCORDING TO THE APPROPRIATE LOCAL, STATE, AND FEDERAL REGULATORY GUIDELINES.

===== MSDS Transport Information =====

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Transport Information:NOT PROVIDED

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===== Regulatory Information =====

SARA Title III Information:COPPER, CHROMIUM, NICKEL, COBALT ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) AND SUPPLIER NOTIFICATION REQUIREMENTS (40 CFR PART 372).

Federal Regulatory Information:CHROMIUM, NICKEL, AND COBALT ARE ON THE LIST OF HAZARDOUS POLLUTANTS THAT ARE REGULATED UNDER SECTION 112 OF THE CLEAN AIR ACT, 1990.

State Regulatory Information:NOT PROVIDED

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===== Other Information =====

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