

PRAXAIR SURFACE TECHNOLOGIES INC -- 032011-10, CO-111 -- 3439-01-425-9631

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Product Identification  
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Product ID:032011-10, CO-111

MSDS Date:02/25/1998

FSC:3439

NIIN:01-425-9631

Status Code:A

MSDS Number: CLNPJ

=== Responsible Party ===

Company Name:PRAXAIR SURFACE TECHNOLOGIES INC

Address:1555 MAIN STREET

City:INDIANAPOLIS

State:IN

ZIP:46224-3283

Country:US

Info Phone Num:317-240-2650

Eme

rgency Phone Num:317-240-2187

Chemtrec Ind/Phone:(800)424-9300

CAGE:0FGH2

=== Contractor Identification ===

Company Name:PRAXAIR SURFACE TECHNOLOGIES INC

Address:1555 MAIN STREET

Box:City:INDIANAPOLIS

State:IN

ZIP:46224-3283

Country:US

Phone:317-240-2650

CAGE:0FGH2

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Composition/Information on Ingredients  
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Ingred Name:COBALT

CAS:7440-48-4

RTECS #:GF8750000

Minimum % Wt:50.

Maxumum % Wt:75.

OSHA PEL:0.1 MG/M3

ACGIH TLV:0.02 MG/M3

Ingred Name:MOLYBDENUM

CAS:7439-98-7

RTECS #:QA4680000  
Minumum % Wt:20.  
Maxumum % Wt:50.  
ACGIH TLV:10 MG/M3

Ingred Name:CHROMIUM  
CAS:7440-47-3  
RTECS #:GB4200000  
Minumum % Wt:5.  
Maxumum % Wt:20.  
OSHA PEL:1 MG/M3  
ACGIH TLV:0.5 MG/M3  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:SILICON  
CAS:7440-21-3  
RTECS #:VW0400000  
Minumum % Wt:1.  
Maxumum % Wt:5.  
OSHA PEL:15 MG/M3  
ACGIH TLV:10 MG/M3

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

LD50 LC50 Mixture:NOT PROVIDED BY MFR

Routes of Entry: Inhalation:YES Skin:YE

S Ingestion:YES

Reports of Carcinogenicity:NTP:YES IARC:YES

Health Hazards Acute and Chronic:SKIN: MAY CAUSE ALLERGIC DERMTTITIS IN SUSCEPTIBLE INDIVIDUALS, WHICH USUALLY OCCURS IN THE FOLDS OF THE SKIN. EYE: MAY CAUSE IRRITATION EXPERIENCED AS REDNESS OF THE CONJUNCTIVA. SWALLOWING: MAY CUAS E NAUSEA, ABDOMINAL PAIN, VOMITING AND DIARRHEA. INHALATION: MAY CAUSE RESPIRATORY TRACT IRRITATION, WITH CHEST PAIN, VOMITING, AND DIARRHEA, MAY ALSO CAUSE INTERSTITIAL PNEUMONI

TIS AND SENSITIZATION OF THE RESPIRATORY TRACT IN SUSCEPTBLE INDIVIDUALS. BREATHING OF DUST MAY AGGRAVATE ASTHMA AND INFLAMMATORY FIBROTIC PULMONARY DISEASE WITH OVEREXPOSURE.

Explanation of Carcinogenicity:CHROMIUM HAS BEEN DETERMINED TO CAUSE CANCER IN EXPERMIMENTAL ANIMALS (IARC, NTP). CHROMIUM IS LISTED AS A HUMAN CARCINOGEN.

Effects of Overexposure:SKIN: MAY CAUSE ALLERGIC DERMTTITIS IN SUSCEPTIBLE INDIVIDUALS, WHICH USUALLY OCCURS IN THE FOLDS OF THE SKIN. EYE:

MAY CAUSE IRRITATION EXPERIENCED AS REDNESS OF THE CONJUNCTIVA. SWALLOWING: MAY CAUSE NAUSEA, ABDOMINAL PAIN, VOMITING AND DIARRHEA. INHALATION: MAY CAUSE RESPIRATORY TRACT IRRITATION, WITH CHEST PAIN, VOMITING, AND DIARRHEA, MAY ALSO CAUSE INTERSTITIAL PNEUMONITIS AND SENSITIZATION OF THE RESPIRATORY TRACT IN SUSCEPTIBLE INDIVIDUALS.

Medical Condition Aggravated by Exposure: BREATHING OF DUST MAY AGGRAVATE ASTHMA AND INFLAMMATORY FIBROTIC PULMONARY DISEASE WITH OVEREXPOSURE

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

First Aid: IN CASE OF SKIN CONTACT WASH THOROUGHLY WITH SOAP AND WATER. IF CONTACT WITH EYE OCCURS, FLUSH THOROUGHLY WITH PLENTY OF WATER. IF DISCOMFORT PERSISTS, SEEK MEDICAL ATTENTION. IF INHALED, REMOVE TO FRESH AIR AND GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. OXYGEN MAY BE GIVEN IF NECESSARY. CALL A PHYSICIAN. IF SWALLOWED, GIVE AT LEAST 2 GLASSES OF MILK OR WATER. INDUCE VOMITING UNLESS PATIENT IS

UNCONSCIOUS. CALL A PHYSICIAN. THE HAZARDS OF THIS MATERIAL ARE MAINLY DUE TO ITS SENSITIZING AND MILD IRRITATING PROPERTIES. THERE IS NO SPECIFIC ANTIDOTE. TREATMENT OF OVEREXPOSURE SHOULD BE DIRECTED AT THE CONTROL OF SYMPTOMS AND THE CLINICAL CONDITION

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

Extinguishing Media: USE SPECIAL DRY POWDER METAL EXTINGUISHING MATERIAL TO EXTINGUISH METAL FIRES.

Fire Fighting Procedures: USE APPROPRIATE EXTINGUISHER TO EXTINGUISH

COMBUSTIBLE MATERIALS THAT MAY BE IGNITED BY THE THERMAL SPRAY FLAME. (WATER IS NOT RECOMMENDED FOR METAL FIRES OR AROUND ELECTRICAL EQUIPMENT)

Unusual Fire/Explosion Hazard: NOT PROVIDED BY MFR

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

Spill Release Procedures: WEAR PROTECTIVE EQUIPMENT TO PROTECT AGAINST HAZARDS SUCH AS OVER EXPOSURE TO SKIN, EYES, AND RESPIRATORY TRACT. COLLECT ALL MATERIAL, WHICH MAY BE RELEASED, INTO CONTAINERS. LABEL

CONTAINERS AND HOLD FOR PROPER DISPOSAL PER LOCAL, STATE, FEDERAL OR COUNTRY REGULATIONS. THERMAL SPRAY PRODUCTS DO NOT PRESENT A SERIOUS HAZARD TO THE ENVIRONMENT IF THEY ARE COLLECTED SHORTLY AFTER A SPILL OR RELEASE

Neutralizing Agent:NOT PROVIDED BY MFR

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

Handling and Storage Precautions:LOCAL DUST PICKUP RECOMMENDED FOR OPEN FLOWING POWDERED PRODUCTS. WEAR PERSONAL PROTECTIVE EQUIPMENT TO PROTECT HEALT

H IF TLV IS EXCEEDED WHILE HANDLING PRODUCT. STORE MATERIAL IN A DRY LOCATION WITH ADEQUATE SUPPORT FOR THE WEIGHT OF THE PRODUCT.STORE MATERIALS AWAY FROM IGNITION SOURCES.

Other Precautions:USE CAUTION WHEN LIFTING PRODUCT CARTONS NOT TO STRAIN YOUR BACK.

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

Respiratory Protection:IF THERE IS DUSTINESS, WEAR RESPIRATOR SELECTED PER OSHA 1910.134 AND OSHA 29 CFR 1910.252 AND ANSI Z49.1

Ventilation:NOT PROVIDED BY MFR

Protective Gloves:NOT REQUIRED

Eye Protection:WHEN DUSTY USE GOGGLES PER OSHA 1910.133. OR FACE SHIELD

Other Protective Equipment:NOT PROVIDED BY MFR

Work Hygienic Practices:NOT PROVIDED BY MFR

Supplemental Safety and Health NOT PROVIDED BY MFR

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

HCC:T6

Melt/Freeze Pt:M.P/F.P Text:1493 TO 2610 DEG C

Decomp Temp:Decomp Text:NOT PROVIDED BY MFR

Vapor Density:NOT PROVIDED

Spec Gravity:NOT PROVIDED BY MFR

Evaporation Rate &

Reference:NOT PROVIDED BY MFR

Solubility in Water:INSOLUBLE

Appearance and Odor:POWDER, DUSTY LIGHT GRAY COLOR, ODORLESS

Percent Volatiles by Volume:NOT PROVIDED

Corrosion Rate:NOT PROVIDED BY MFR

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

AIRBORNE DUST PARTICLES, ESPECIALLY METAL DUST, AND ACCUMULATION OF SUCH SHOULD BE TREATED AS EXPLOSIVES

Hazardous Decomposition Products:WHEN THERMAL SPRAYING, DECOMPOSITION PRODUCTS WILL VARY WITH OPERATING CONDITIONS. EXP

EXPECTED DECOMPOSITION

OF NORMAL OPERATION INCLUDES OXIDES, SUB-OXIDES, & SIMPLE OXIDES.

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

Toxicological Information: CHROMIUM HAS BEEN DETERMINED TO CAUSE CANCER IN EXPERIMENTAL ANIMALS (IARC, NTP). CHROMIUM IS LISTED AS A HUMAN CARCINOGEN.

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

Ecological: NONE KNOWN AT THIS TIME

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

Waste Dis

posal Methods: COLLECT MATERIAL INTO CONTAINERS FOR RECYCLE OR REUSE. DO NOT THROW IN TRASH OR PLACE IN LANDFILL. REFER TO GOVERNMENTAL AND REGIONAL REQUIREMENTS.

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

SARA Title III Information: SECTION 311/312: THE HAZARD CLASS FOR THIS PRODUCT IS AS FOLLOWS: IMMEDIATE: NO, DELAYED: YES, REACTIVITY: NO, FLAMMABLE: NO. SECTION 313: REQUIRE SUBMISSION OF ANNUAL REPORTS OF RELEASE OF TOXIC CHEMICALS THAT APPEAR IN

40 CFR PART 372,  
CHROMIUM (7440-47-3)

Federal Regulatory Information: CLASSIFICATION AND LABELING: HARMFUL. INGESTION/INHALATION, POSSIBLE IRREVERSIBLE EFFECT. SKIN CONTACT MAY CAUSE SENSITIZATION, MAY CAUSE SENSITIZATION BY INHALATION. AVOID BREATHING DUST, WEAR SUITABLE PROTECTIVE EQUIPMENT. CAUTION CONTAINS CHROMIUM. TSCA ALL INGREDIENTS IN THIS PRODUCT ARE LISTED IN THE TSCA INVENTORY. PROP 65- WARNING; THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALI

FORNIA TO CAUSE CANCER;  
CHROMIUM (7440-47-3)

State Regulatory Information: PROP 65- WARNING; THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER; CHROMIUM (7440-47-3)

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