

SIFCO SELECTIVE PLATING DIV OF SIFCO INDUSTRIES INC. -- 2043, SIFCO DALIC SOLUTION
COBALT (HEAVY BUILD) -- 6850-01-266-6620

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

Product ID:2043, SIFCO DALIC SOLUTION COBALT (HEAVY BUILD)

MSDS Date:03/06/2000

FSC:6850

NIIN:01-266-6620

Status Code:A

MSDS Number: CLKRP

=== Responsible Party ===

Company Name:SIFCO SELECTIVE PLATING DIV OF SIFCO INDUSTRIES INC.

Address

s:5708 SCHAAF ROAD

City:CLEVELAND

State:OH

ZIP:44131-1394

Country:US

Info Phone Num:216-524-0099/ FAX: -6331

Emergency Phone Num:800-424-9300

Resp. Party Other MSDS Num.:2043

Preparer's Name:NOT PROVIDED

Chemtrec Ind/Phone:(800)424-9300

CAGE:11924

==== Contractor Identification ====

Company Name:SIFCO SELECTIVE PLATING DIV OF SIFCO INDUSTRIES INC.

Address:5708 SCHAAF ROAD

Box:City:CLEVELAND

State:OH

ZIP:44131-1394

Country:US

Phone:216-524-0099/ FAX: -6331

Contract Num:SP0450-01-M-ZG28

CAGE:119

24

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

Ingred Name:COBALT SULFATE

CAS:10124-43-3

RTECS #:GG3100000

Minumum % Wt:10.

Maxumum % Wt:20.

Other REC Limits:NIOSH 0.05 MG/M3

OSHA PEL:0.1 MG/M3

ACGIH TLV:0.02 MG/M3

Ingred Name:SULFURIC ACID

CAS:7664-93-9

RTECS #:WS5600000

Minumum % Wt:0.

Maxumum % Wt:1.

Other REC Limits:NIOSH 1 MG/M3

OSHA PEL:1 MG/M3

ACGIH TLV:1 MG/M3

ACGIH STEL:3 MG/M3

EPA Rpt Qty:1000 LBS

:ZC0110000

Minumum % Wt:79.

Maxumum % Wt:90.

Other REC Limits:NOT PROVIDED

Code:F

Code:F

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

LD50 LC50 Mixture:NOT PROVIDED

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

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

Health Hazards Acute and Chronic:EYE: MAY CAUSE EYE IRRITATION. SKIN

CONTACT: MAY CAUSE SKIN IRRITATION. MAY CAUSE SKIN SENSITIZATION

AND ALLERGIC REACTION, DERMITITIS. INHALATION: VAPOR OR

MIST MAY BE

HARMFUL IF INHALED. MAY CAUSE S NEEZING, NASAL DISCHARGE, COUGHING,
HEADACHES, DIZZINESS, NAUSEA, FATIGUE OR DIFFICULTY IN BREATHING.

IRRITATING TO THE EYES, NOSE, THROAT, AND LUNGS. MAY CAUSE

SENSITIZATION OF RESPIRATORY TRACT. ING ESTION: HARMFUL IF

SWALLOWED. CAN IRRITATE MOUTH, THROAT AND STOMACH. MAY CAUSE LIVER

DAMAGE AND JAUNDICE, KIDNEY AND GASTROINTESTINAL DAMAGE. CHRONIC:

SKIN, EYES, RESPIRATORY SYSTEM, TEETH DAMAGE, RE SPIRATORY

SENSITIZATI

ON AND DERMATITIS.

Explanation of Carcinogenicity:CONTAINS COBALT SULFATE.

Effects of Overexposure:EYE: MAY CAUSE EYE IRRITATION. SKIN CONTACT:

MAY CAUSE SKIN IRRITATION. MAY CAUSE SKIN SENSITIZATION AND

ALLERGIC REACTION, DERMITITIS. INHALATION: MAY CAUSE SNEEZING,

NASAL DISCHARGE, COUGHING, HEADACHES, DIZZINESS, NAUSEA, FATIGUE

OR DIFFICULTY IN BREATHING. IRRITATING TO THE EYES, NOSE, THROAT,

AND LUNGS. MAY CAUSE SENSITIZATION OF RESPIRATORY TRACT. INGESTION:

CAN IRRIT

ATE MOUTH, THROAT AND ST OMACH. MAY CAUSE LIVER DAMAGE AND

JAUNDICE, KIDNEY AND GASTROINTESTINAL DAMAGE.

Medical Cond Aggravated by Exposure:PREEXISTING SKIN AND EYE

CONDITIONS; RESPIRATORY SYSTEM DISORDERS; PREEXISTING SENSITIZATION

TO COBALT.

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

First Aid:EYES: HOLD EYELIDS APART AND FLUSH WITH PLENTY OF WATER FOR

AT LEAST 15 MINUTES. SKIN: IMMEDIATELY FLUSH WITH WATER FOR AT

LEAST 15 MINUTES WHILE REMOVING

CONTAMINATED CLOTHING AND SHOES.

THOROUGHLY DECONTAMINATE (OR DISCARD) CLOTHING AND SHOES.

INHALATION: REMOVE TO FRESH AIR. LAY VICTIM DOWN, LEGS RAISED.

LOOSEN TIGHT CLOTHING, COVER WITH A BLANKET. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT GIVE OXYGEN.

INGESTION: DO NOT INDUCE VOMITING, UNLESS ADVISED BY EMS. GIVE VICTIM LARGE QUANTITIES OF WATER OR MILK. GIVE MILK OF MAGNESIA OR FRESH EGGS. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

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Fire Fighting Measures
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Flash Point:NONE

Lower Limits:NONE

Upper Limits:NONE

Extinguishing Media:ALL

Fire Fighting Procedures:NIOSH/MSHA APPROVED POSITIVE-PRESSURE SELF-CONTAINED BREATHING APPARATUS. STRUCTURAL FIREFIGHTERS' PROTECTIVE CLOTHING MAY NOT PROVIDE ADEQUATE PROTECTION.

Unusual Fire/Explosion Hazard:CONTAINERS CAN BUILD UP PRESSURE AND BURST IF EXPOSED TO HEAT (FIRE). CONTACT WITH METALS MAY FORM FLAMMABLE HYD

ROGEN GAS. WATER RUNOFF CAN CAUSE ENVIRONMENTAL DAMAGE. DIKE AREA FOR LATER DISPOSAL.

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Accidental Release Measures
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Spill Release Procedures:DO NOT TOUCH/WALK THROUGH SPILLED MATERIAL. ISOLATE HAZARD AREA AND KEEP PEOPLE AWAY. ELIMINATE SOURCES OF IGNITION. PROVIDE MAXIMUM VENTILATION. DO NOT RELEASE INTO SOIL, SEWERS/NATURAL BODIES OF WATER. WEAR PROPER PERSONAL PROTECTIVE EQUIPMENT. CAREFULLY MOP UP OR VACUUM SPILL AND TRIPLE RINSE WITH

WATER INTO SUITABLE CONTAINER. REPORT RELEASE OF REPORTABLE QUANTITY (RQ) TO PROPER AUTHORITIES.

Neutralizing Agent:NOT PROVIDED

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Handling and Storage
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Handling and Storage Precautions:KEEP CONTAINER TIGHTLY CLOSED IN UPRIGHT POSITION. STORE AT 60-90F AWAY FROM INCOMPATIBLE MATERIALS AND PHYSICAL HAZARDS. DO NOT REMOVE OR DEFACE CONTAINER LABELS.

Other Precautions:USE "BUDDY SYSTEM" WHEN WORKING WITH CHEMICALS. DO NOT GET IN

EYES, ON SKIN, ON CLOTHING. DO NOT BREATHE VAPOR, MIST, OR GAS. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING. TRIPLE RINSE CONTAINER CLEAN BEFORE DISCARDING. PUT NOTHING ELSE IN THIS CONTAINER.

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

Respiratory Protection:IF ENGINEERING CONTROLS ARE NOT FEASIBLE, THE RESPIRATORY PROTECTION PROGRAM MUST COMPLY WITH OSHA 29 CFR 1910.134.

Ventilation:LOCAL EXHAUST VENTILATION IS REQUIRED TO MEET THE

PERMISSIBLE EXPOSURE LIMITS (PEL) DURING THE USE OF THIS PRODUCT.

Protective Gloves:NITRILE, NEOPRENE, VINYL, LATEX GLOVES

Eye Protection:FACE SHIELD AND SAFETY GLASSES W/SIDE SHIELDS OR SPLASH-PROOF CHEMICAL GOGGLES.

Other Protective Equipment:IMPERVIOUS BOOTS, APRON, PROTECTIVE CLOTHING AS REQUIRED BY JOB CONDITIONS. EYE WASH STATION, SAFETY SHOWER, WASHING FACILITIES NEAR WORK AREA.

Work Hygienic Practices:DO NOT WEAR CONTACT LENSES.

Supplemental Safety and Health

ABBREVIATIONS:

N/A = NOT APPLICABLE. N/AV = NOT AVAILABLE. N/K = UNKNOWN. N/P = NOT PROVIDED. N/R = NOT RELEVANT. N/D = NOT DETERMINED. N/E = NOT ESTABLISHED. GI = GASTROINTESTINAL.

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

HCC:C1

NRC/State Lic Num:NOT RELEVANT

Boiling Pt:=100.C, 212.F

Melt/Freeze Pt: