

SIFCO SELECTIVE PLATING DIV OF SIFCO INDUSTRIES INC. -- 7280, SIFCO DALIC SOLUTION  
AERONIKL 250 (SULFAMATE NICKEL) -- 6850-01-292-9738

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Product Identification  
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Product ID:7280, SIFCO DALIC SOLUTION AERONIKL 250 (SULFAMATE NICKEL)

MSDS Date:03/13/2000

FSC:6850

NIIN:01-292-9738

Status Code:A

MSDS Number: CLKZB

=== Responsible Party ===

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

Address: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 216-524-0099

Resp. Party Other MSDS Num.:MSDS # 7280

Preparer's Name:WERNER A. EHRENSCHEIDER

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

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099/ FAX: -6331

Contract Num:SP0450-99-M-C683

CAGE:11924

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Composition/Information on Ingredients  
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Ingred Name:NICKEL (SARA 313) (CERCLA)

CAS:7440-02-0

RTECS #:QR5950000

Minumum % Wt:5.

Maxumum % Wt:10.

Other REC Limits:NONE RECOMMENDED

OSHA PEL:1 MG/M3

ACGIH TLV:1 MG/M3; 9596

Ingred Name:SULFAMIC ACID

CAS:5329-14-6

RTECS #:WO5950000

Minumum % Wt:20.

Maxumum % Wt:30.

Other REC Limits:NONE RECOMMENDED

Ingred Name:BORIC ACID

CAS:10043-35-3

RTECS #:ED4550000

% Wt:1.  
Maxumum % Wt:5.  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:10 MG BORATES/M3  
ACGIH TLV:5 MG BORATES/M3

Ingred Name:WATER  
CAS:7732-18-5  
RTECS #:ZC0110000  
Minumum % Wt:55.  
Maxumum % Wt:74.  
Other REC Limits:NONE RECOMMENDED

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===== Hazards Identification =====  
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LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES  
Health Hazards Acute and Chronic:TA  
RGET ORGANS: SKIN,EYES,NASAL CAVITY,  
LUNGS, KIDNEYS AND LIVER. EYE: CAUSES EYE IRRITATION, BURNS  
POSSIBLE. SKIN CONTACT: MAY CAUSE SKIN IRRITATION. MAY CAUSE SKIN  
SENSITIZATION, AND ALLERGIC REACTIO N (NICKEL RASH). INHALATION:  
MAY CAUSE SNEEZING, NASAL DISCHARGE, COUGHING, HEADACHES,  
DIZZINESS, NAUSEA, FATIGUE OR DIFFICULTY IN BREATHING. IRRITATING  
TO THE EYES, NOSE THROAT, AND LUNGS. INGESTION: MAY CAUSE BURNS TO  
MUCOUS MEMBRANES. CAN IRRITATE MOUTH, THROAT, AND ST  
OMACH. MAY  
CAUSE LIVER DAMAGE WITH JAUNDICE,KIDNEY AND GASTROINTESTINAL  
DAMAGE.  
Explanation of Carcinogenicity:NICKEL COMPOUNDS ARE LISTED BY IARC &  
NTP AS CARCINOGENS. MFR LISTS AS OSHA REGULATED  
Effects of Overexposure:EYE: CAUSES EYE IRRITATION, BURNS POSSIBLE.  
SKIN CONTACT: MAY CAUSE SKIN IRRITATION. MAY CAUSE SKIN  
SENSITIZATION, AND ALLERGIC REACTION (NICKEL RASH). INHALATION: MAY  
CAUSE SNEEZING, NASAL DISCHARGE, COUGHING, HEADACHES, DIZZINESS,  
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NOSE THROAT, AND LUNGS. INGESTION: MAY CAUSE BURNS TO MUCOUS  
MEMBRANES. CAN IRRITATE MOUTH, THROAT, AND STOMACH. MAY CAUSE  
LIVER DAMAGE WITH JAUNDICE,KIDNEY AND GASTROINTESTINAL DAMAGE.  
Medical Cond Aggravated by Exposure:PRE-EXISTING SKIN & EYE CONDITIONS,  
RESPIRATORY SYSTEM DISORDERS, PRE-EXISTING SENSITIZATION TO NICKEL.

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===== First Aid Measures =====  
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First Aid:EYES: HOLD EYELIDS APART

AND FLUSH EYES WITH PLENTY OF WATER

AT LEAST 15 MINUTES. SKIN: IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER AT LEAST 15 MINUTES 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 BLANKET. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING 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 UNCONSCIOUS PERSON.

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

Flash Point:NONE

Autoignition Temp:Autoignition Temp Text:N.A.

Lower Limits:NONE

Upper Limits:NONE

Extinguishing Media:ALL.

Fire Fighting Procedures:NIOSH/MSHA APPROVED POSITIVE-PRESSURE SELF-CONTAINED BREATHING APPARATUS. STRUCTURAL FIRE FIGHTERS PROTECTIVE CLOTHING MA

Y NOT PROVIDE ADEQUATE PROTECTION.

Unusual Fire/Explosion Hazard:CONTAINERS CAN BUILD-UP PRESSURE & BURST IF EXPOSED TO HEAT (FIRE). CONTACT WITH METALS MAY FORM FLAMMABLE HYDROGEN GAS.WATER RUNOFF CAN CAUSE ENVIRONMENTAL DAMAGE. DIKE AREA FOR LATER DISPOSAL.

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

Spill Release Procedures:ISOLATE & DENY ENTRY. DO NOT TOUCH SPILLED MATERIAL. ELIMINATE ALL SOURCES OF IGNITION. NOTIFY FACILITY EMERGENCY COORDINATOR

. PROVIDE MAXIMUM VENTILATION. KEEP PRODUCT OUT OF SURFACE WATERS/SEWERS. WEAR PROPER PERSONAL PROTECTIVE EQUIPMENT (PPE). CAREFULLY MOP UP OR VACUUM INTO PLASTIC CONTAINER. RELEASE OF REPORTABLE QUANTITY (RQ) REQUIRES NOTIFICATION OF PROPER AUTHORITIES.

Neutralizing Agent:SODA ASH AND CRUSHED LIMESTONE.

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

Handling and Storage Precautions:KEEP CONTAINER TIGHTLY CLOSED IN UPRIGHT POSITION. STORE AT 60-90F AW

AY FROM INCOMPATIBLE MATERIALS

AND PHYSICAL HAZARDS. DO NOT REMOVE OR DEFACE LABELS. USE "BUDDY SYSTEM" WHEN WORKING WITH CHEMICALS . DO NOT GET IN EYES, ON SKIN, ON CLOTHING. DO NOT BREATH VAPOR, MIST OR GAS.

Other Precautions:USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING. TRIPLE RINSE CONTAINER CLEAN BEFORE DISCARDING. PUT NOTHING ELSE IN THIS CONTAINER.

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

Respiratory Protection:IF ENGINEERING CONTROLS ARE NOT FEASIBLE, THE RESPIRATORY PROTECTION PROGRAM MUST COMPLY WITH OSHA'S 29 CFR 1910.134, 30 CFR 11 AND ANSI Z88.2 REQUIREMENTS.

Ventilation:LOCAL EXHAUST IS REQUIRED TO MEET THE PERMISSABLE EXPOSURE LIMIT (PEL) DURING THE USE OF THIS PRODUCT.

Protective Gloves:NITRILE, NEOPRENE, VINYL, LATEX.

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

Other Protective Equipment:EYE WASH STATION, SAFETY SHOWER, WASHING FACILITY

TIES NEAR WORK AREA, IMPERVIOUS BOOTS, APRON, PROTECTIVE CLOTHING AS REQUIRED BY JOB CONDITIONS.

Work Hygienic Practices:WASH HANDS AFTER HANDLING AND BEFORE EATING, DRINKING, OR SMOKING. LAUNDRY CONTAMINATED CLOTHES BEFORE REUSE.

Supplemental Safety and Health  
NONE SPECIFIED BY MANUFACTURER.

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

HCC:C1

Boiling Pt.=100.C, 212.F

Melt/Freeze Pt: