

LIQUID DEVELOPMENT CO INC -- LDC-2803 HI-SPEED NICKEL -- 6850-01-064-1687

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

Product ID:LDC-2803 HI-SPEED NICKEL

MSDS Date:01/01/2000

FSC:6850

NIIN:01-064-1687

MSDS Number: BGJXQ

=== Responsible Party ===

Company Name:LIQUID DEVELOPMENT CO INC

Address:3748 E 91ST STREET

City:CLEVELAND

State:OH

ZIP:44105-2156

Country:US

Info Phone Num:216-641-9366/FAX -6416

Emergency

Phone Num:(800)424-9300

Preparer's Name:NOT PROVIDED

Chemtec Ind/Phone:(800)424-9300

CAGE:57868

=== Contractor Identification ===

Company Name:FAISON AND CO

Address:5821 ARROWHEAD DR SUITE 102

Box:3131

City:VIRGINIA BEACH

State:VA

ZIP:23454

Country:US

Phone:757-490-6090

Contract Num:SP0450-00-M-SH28

CAGE:1P430

Company Name:LIQUID DEVELOPMENT CO INC

Address:3748 E 91ST STREET

Box:City:CLEVELAND

State:OH

ZIP:44105-2156

Country:US

Phone:216-641-9366/800-424-9300(CHEMTREC)

CAGE:57868

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= Composition/Information on Ingredients =====

Ingred Name:WATER
CAS:7732-18-5
RTECS #:ZC0110000
Minumum % Wt:50.
Maxumum % Wt:60.
Other REC Limits:NOT PROVIDED

Ingred Name:NICKEL SULFATE (SARA 313) (CERCLA)
CAS:7786-81-4
RTECS #:QR9350000
Minumum % Wt:10.
Maxumum % Wt:20.
Other REC Limits:NONE ESTABLISHED
OSHA PEL:1 MG/M3
ACGIH TLV:0.1 MG/M3
EPA Rpt Qty:100 LBS
DOT Rpt Qty:100 LBS

Ingred Name:CITRIC ACID
CAS:77-92-9
RTECS #:GE7350000
Minumum % Wt:1.
Maxumum % Wt:10.
Other REC Limit
s:NOT PROVIDED
OSHA PEL:NONE ESTABLISHED
ACGIH TLV:NONE ESTABLISHED

Ingred Name:FORMIC ACID
CAS:64-18-6
RTECS #:LQ4900000
Minumum % Wt:1.
Maxumum % Wt:10.
Other REC Limits:NONE ESTABLISHED
OSHA PEL:9 MG/M3;5 PPM
ACGIH TLV:9.4 MG/M3;5 PPM
ACGIH STEL:19 MG/M3;10 PPM
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

Ingred Name:AMMONIUM HYDROXIDE
CAS:1336-21-6
RTECS #:BQ9625000
Minumum % Wt:10.
Maxumum % Wt:20.
Other REC Limits:NOT PROVIDED
OSHA PEL:35 MG/M3
ACGIH TLV:17 MG/M3
EPA Rpt Qty:1000 LBS
DOT Rp

t Qty:1000 LBS

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

LD50 LC50 Mixture:NOT PROVIDED

Routes of Entry: Inhalation:YES Skin:NO Ingestion:YES

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

Health Hazards Acute and Chronic:SKIN- NICKEL ITCH OR RASH. EYE-AMMONIA VAPORS ARE IRRITATING AND MAY DAMAGE. EXPOSURE TO VAPORS CAN CAUSE PERMANENT UPPER RESPIRATORY TRACT IRRITATION, PNEUMONITIS. INGESTION- COULD CAUSE CORROSIVE EFFECTS ON THROAT AND MOUTH.

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Explanation of Carcinogenicity:SOLUBLE NICKEL COMPOUNDS: NTP: YES, IARC: YES, OSHA: YES. ALL CONCLUDE THAT NICKEL COMPOUNDS MAY REASONABLY BE ANTICIPATED TO BE CARCINOGENS.

Effects of Overexposure:SKIN ITCH, BURNING, TEARING OF EYES, RUNNY NOSE, COUGHING, AND CHEST PAIN.

Medical Cond Aggravated by Exposure:ASTHMA, ALLERGIES, KNOWN SENSITIZATION TO NICKEL, EASILY IRRITATE: EYES OR RESPIRATORY PROBLEMS, CHRONIC SKIN DISORDERS.

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

First Aid:SKIN AND EYES- REMOVE CONTAMINATED CLOTHING. FLUSH WITH LARGE QUANTITIES OF WATER, SEEK MEDICAL ATTENTION. INHALATION- MOVE TO FRESH AIR. GET MEDICAL ATTENTION. INGESTION- GET IMMEDIATE MEDICAL ATTENTION. DO NOT INDUCE VOMITING.

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

Flash Point:NONE

Autoignition Temp:Autoignition Temp Text:NP

Lower Limits:NA

Upper Limits:NA

Extinguishing Media:WATER, CO2, DRY CHEMICAL.

Fire Fighting

Procedures:CHEMICAL RESISTANT CLOTHING AND SELF-CONTAINED BREATHING APPARATUS SHOULD BE WORN IN CASE OF SPILL.

Unusual Fire/Explosion Hazard:UNDER CERTAIN CIRCUMSTANCES AMMONIA VAPORS AND AIR CAN CREATE AN EXPLOSIVE MIXTURE.

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

Spill Release Procedures:VENTILATE AREA. WEAR PROTECTIVE CLOTHING. SMOTHER WITH NEUTRALIZING AGENT, SCOOP INTO CONTAINER FOR PROPER DISPOSAL.

Neutralizing Agent:NOT PROVIDED

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

Handling and Storage Precautions:STORE BETWEEN 45-75F, OUT OF DIRECT LIGHT, WITH CONTAINER SEALED TIGHT.

Other Precautions:DO NOT EAT, DRINK, OR SMOKE IN WORK AREA.

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

Respiratory Protection:A NIOSH/MSHA APPROVED RESPIRATOR AS NECESSARY.

Ventilation:LOCAL EXHAUST: SHOULD BE USED TO MAINTAIN CONCENTRATIONS BELOW TLV.

Protective Gloves:RUBBER GLOVES

Eye Protection:FACES

SHIELD OR CHEMICAL GOGGLES

Other Protective Equipment:CHEMICAL RESISTANT CLOTHING (APRON,BOOTS,ETC).

Work Hygienic Practices:WASH HANDS THOROUGHLY WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES.

Supplemental Safety and Health

NONE

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

HCC:T6

NRC/State Lic Num:NOT RELEVANT

Boiling Pt:>93.3C, 200.F

Melt/Freeze Pt:M.P/F.P Text:NOT AVAILABLE

Decomp Temp:Decomp Text:NOT PROVIDED

Vapor Pres:NOT A

AVAILABLE

Vapor Density:NA

Spec Gravity:1.16-1.18

pH:7.4-7.8

Viscosity:NOT PROVIDED

Evaporation Rate & Reference:NOT AVAILABLE

Solubility in Water:COMPLETE

Appearance and Odor:BLUE-GREEN LIQUID; STRONG AMMONIA SMELL

Corrosion Rate:NOT PROVIDED

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

Stability Indicator/Materials to Avoid:YES

NONE EXPECTED

Hazardous Decomposition Products:NONE

===== **Toxicological Information**=====

Toxicological Inform

ation:NOT PROVIDED

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Ecological Information
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Ecological:NOT PROVIDED

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Disposal Considerations
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Waste Disposal Methods:DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND
FEDERAL LAWS. DO NOT FLUSH DOWN THE SEWER SYSTEM.

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MSDS Transport Information
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Transport Information:NOT PROVIDED

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Regulatory Information
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SARA Title III

Information:NOT PROVIDED

Federal Regulatory Information:NOT PROVIDED

State Regulatory Information:NOT PROVIDED

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Other Information
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