

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

Chemtrec 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

=====

= 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

=====
===== 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.

H.

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.

=====
===== 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.

=====
===== 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.

=====
===== 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

=====

=====
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

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

Ecological:NOT PROVIDED

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

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

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

Transport Information:NOT PROVIDED

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

SARA Title III

Information:NOT PROVIDED

Federal Regulatory Information:NOT PROVIDED

State Regulatory Information:NOT PROVIDED

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

Disclaimer (provided with this information by the compiling agencies):
This information is formulated for use by elements of the Department
of Defense. The United States of America in no manner whatsoever,
expressly or implied, warrants this information to be accurate and
disclaims all liability for its use. An
y person utilizing this
document should seek competent professional advice to verify and
assume responsibility for the suitability of this information to their
particular situation.