

LCI (LUCIER CHEMICAL INDUSTRIE -- FLUOROSILICIC ACID

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MSDS Safety Information
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FSC: 6810
NIIN: 00-935-5817
MSDS Date: 03/01/1999
MSDS Num: CGXCK
Product ID: FLUOROSILICIC ACID
MFN: 02
Responsible Party
Cage: 0K1E4
Name: LCI (LUCIER CHEMICAL INDUSTRIES) LTD
Box: 49000
City: JACKSONVILLE BEACH FL 3
2240-9000
Info Phone Number: 904-241-1200
Emergency Phone Number: 904-241-1200/800-424-9300(CHEMTREC)

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Item Description Information
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Item Manager: S9G
Item Name: HYDROFLUOSILICIC ACID
Specification Number: NONE
Type/Grade/Class: NONE
Unit of Issue: DR
Quantitative Expression: 00000000140LB
UI Container Qty: 0
Type of Container: DRUM

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Ingredients
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Cas: 16961-83-4
RTECS #: VV8225000
Name: HYDROFLUOROSILICIC ACID
% Wt: 23 - 27
Other REC Limits: NONE RECOMMENDED
OSHA PEL: NOT ESTABLISHED
ACGIH TLV: 2.5 MG/M3 AS F

Cas: 7732-18-5
RTECS #: ZC0110000
Name: WATER
% Wt: 73 - 77
Other REC Limits: NONE RECOMMENDED
OSHA PEL: NOT RELEVANT
ACGIH TLV: NOT RELEVANT

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Health Hazards Data
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LD50 LC50 Mixture: LD50 (ORAL, GUINEA PIG) IS 200 MG/KG.

Route Of Entry Inds - Inhalation: YES

Skin: YES

Carcinogenicity Inds - NTP: NO

IARC: NO

OSHA: NO

Effects of Exposure: ACUTE: LIQUID OR VAPOR CAN CAUSE SEVERE IRRITATION AND BURNS WHICH MAY NOT BE APPARENT FOR HOURS. CAN CAUSE SEVERE IRRITATION TO THE LUNGS, NOSE AND THROAT. IF SWALLOWED, CAN CAUSE SEVERE DAMAGE TO TH ROAT AND STOMACH. CHRONIC: PROLONGED EXPOSURE COULD RESULT IN BONE CHANGES , CORROSIVE

EFFECTS ON MUCOUS MEMBRANES INCLUDING ULCERATION OF NOSE, THROAT AND BRONCHIAL TUBES, COUGH, SHOCK, PULMONARY EDE MA, FLUOROSIS, COMA AND DEATH.

Explanation Of Carcinogenicity: NONE

Signs And Symptoms Of Overexposure: ACUTE: LIQUID OR VAPORS CAN CAUSE SEVERE IRRITATION & BURNS WHICH MAY NOT BE APPARENT FOR HOURS. CAN CAUSE SEVERE IRRITATION TO THE LUNGS, NOSE AND THROAT. IF SWALLOWED, CAN CAUSE SEVERE DAMAGE TO THR OAT AND STOMACH. CHRONIC: PROLONGED EXPOSURE COULD RE SULT IN

BONE CHANGES, CORROSIVE EFFECTS ON MUCOUS MEMBRANES INCLUDING ULCERATION OF NOSE, THROAT AND BRONCHIAL TUBES, COUGH, SHOCK, PULMONARY EDEM A, FLUOROSIS, COMA AND DEATH.

Medical Cond Aggravated By Exposure: ANY SKIN CONDITION AND/OR PREEXISTING RESPIRATORY DISEASE INCLUDING ASTHMA AND EMPHYSEMA.

First Aid: GET IMMEDIATE MEDICAL HELP FOR ALL CASES OF EXPOSURE.

EYES/SKIN:FLUSH WITH WATER FOR AT LEAST 15 MINUTES. HOLD EYELIDS OPEN.

INHALED:REMOVE TO FRESH AIR. PROVIDE CPR/OXYGEN

IF NECESSARY. ORAL:DO NOT I

NDUCE VOMITING. IF CONSCIOUS, DRINK LARGE AMOUNT OF MILK OR WATER. NOTE TO PHYSICIAN: LATE ONSET (PULMONARY EDEMA UP TO 48 HOURS). TREAT SEVERE BURNS SIMILAR TO HYDROFLUORIC ACID EXPOSURE.

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Handling and Disposal

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Spill Release Procedures: WEAR NIOSH APPROVED AIR SUPPLIED ACID SUIT. DIKE OR CONTAIN MATERIAL. DO NOT ALLOW SOLUTION TO ENTER SEWERS OR SURF ACE WATER.

NEUTRALIZE SPILL WITH WATER & LIME(HYDRATED LIME). TAKE UP WITH SAND OR NO N-COMBUSTIBLE ABSORBENT MATERIAL AND PLACE IN SUITABLE CONTAINER FOR DISPOSAL. PROVIDE VENTILATION AND BE WARY OF HYDROGEN GENERATION UPON REACTION WITH SOME METALS. CONTACT CHEMTREC 800-424-9300.

Neutralizing Agent: WATER AND LIME(HYDRATED LIME).

Waste Disposal Methods: DISPOSER MUST COMPLY WITH LOCAL, STATE AND FEDERAL DISPOSAL OR DISCHARGE LAWS.

Handling And Storage Precautions: STORE CONTAINER

S IN COOL, DRY, WELL

VENTILATED AREA AWAY FROM SOURCES OF HEAT OR IGNITION. DO NOT STORE IN GLASS OR STONWARE. USE NON-SPARKING TOOLS. KEEP SEPARATE FROM ALKALI METALS, OXIDIZING AGENTS, COMBUSTIBLE SOLIDS AND ORGANIC PEROXIDES.

Other Precautions: THIS CONTAINER IS HAZARDOUS WHEN EMPTY BECAUSE THE EMPTY CONTAINER STILL RETAINS PRODUCT RESIDUE. ALL LABELED HAZARD PRECAUTIONS MUST BE OBSERVED. AVOID BREATHING FUMES. IF PUNGENT, IRRITATING ODOR CAN BE DETECTED, WORKERS ARE BEING OVER

-EXPOSED. EYE WASH & SAFETY SHOWER SHOULD BE AVAILABLE IN ALL HANDLING AREAS.

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Fire and Explosion Hazard Information
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Flash Point Text: NONE

Lower Limits: NOT RELEVANT

Upper Limits: NOT RELEVANT

Extinguishing Media: USE AGENT WHICH IS APPROPRIATE FOR SURROUNDING FIRE.

Fire Fighting Procedures: WEAR NIOSH APPROVED SELF-CONTAINED ACID SUITS.

Unusual Fire/Explosion Hazard: REACTS

WITH MANY METALS TO PRODUCE FLAMMABLE AND

EXPLOSIVE HYDROGEN GAS. KEEP CONTAINER COOL WITH WATER, USING FOG NOZZLES, AS DECOMPOSITION WILL OCCUR ABOVE 222F AND PRODUCE TOXIC AND CORROSIVE FUMES OF FLUORIDES.

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Control Measures
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Respiratory Protection: A NIOSH APPROVED CARTRIDGE RESPIRATOR WITH FULL FACE SHIELD. CHEMICAL CARTRIDGE SHOULD PROVIDE PROTECTION AGAINST ACID FUMES, (HYDROGEN FLUORIDE). FOR CONCENTRATIONS GREATER THAN 20PPM, A NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS WITH FULL FACE SHIELD SHOULD BE USED.

Ventilation: GENERAL OR LOCAL EXHAUST SYSTEMS SUFFICIENT TO MAINTAIN VAPORS BELOW 2.5MG/M3(AS F).

Protective Gloves: ACID PROOF

Eye Protection: TIGHT FITTING CHEMICAL SPLASH GOGGLES WITH FULL FACE SHIELD 8 INCH MINIMUM

Other Protective Equipment: EYE WASH STATION, QUICK DRENCH SHOWER AND ACID-PROOF CLOTHING, GLOVES AND SHOES. USE NIOSH

APPROVED ACID PROOF SUIT AND

BOOTS WHERE LIQUID OR HIGH VAPOR CONCENTRATION IS POSSIBLE.

Work Hygienic Practices: CONTACT LENSES SHOULD NOT BE WORN.

Supplemental Safety and Health: DOT CHEMICAL NAME: FLUOROSILICIC ACID.

SYNONYMS: HYDROFLUOSILICIC ACID, FLUOSILICIC ACID, HEXAFLUOSILICIC ACID.

CHEMICAL FAMILY: INORGANIC ACID. FORMULA: H₂SIF₆. NIOSH REGISTRY NUMBER: V V 8225000. CAS NUMBER: 16961-83-4. NOTE: N/A INDICATES NOT APPLICABLE WHERE SHOWN.

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Physical/Chemical Properties
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HCC: C1
NRC/State LIC No: NOT RELEVANT
Boiling Point: =105.6C, 222.F
Melt/Freeze Pt: =-15.4C, 4.F
Decomp Temp: =105.6C, 222.F
Vapor Pres: 24 @ 77F
Vapor Density: UNKNOWN
Spec Gravity: 1.234 @25%
PH: 1.2 %
Viscosity: UNKNOWN
Evaporation Rate & Reference: UNKNOWN
Solubility in Water: COMPLETE
Appearance and Odor: WATER WHITE TO STRAW YELLOW, BURNING LIQUID WITH A PUNGENT
ODOR
Corrosion Rate: UNKNOWN

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Reactivity Data
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Stability Indicator: YES
Stability Condition To Avoid: EXCESSIVE HEAT.
Materials To Avoid: METALS, STRONG CONCENTRATED ACIDS, STRONG ALKALIS, GLASS,
STONEWARE.
Hazardous Decomposition Products: HYDROGEN FLUORIDE, SILICA TETRAFLUORIDE AND
HYDROGEN GAS.
Hazardous Polymerization Indicator: NO
Conditions To Avoid Polymerization: WILL NOT OCCUR.

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Toxicological Information
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Toxicological Information: HEALTH INFORMATION: OSHA PERMISSIBLE EXPOSURE LIMIT
(PEL): 2.5 MG/M3 (AS F). ACGIH THRESHOLD LIMIT VALUE (TLV): 2.5 MG/M3 (AS F).
TOXIC DATA: LD50 200 MG/KG (ORAL-GUINEA PIG).

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Ecological Information
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MSDS Transport Information
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Transport Information: DOT PROPER SHIPPING NAME: FLUOROSILIC ACID. DOT HAZARD CLASS: 8 (CORROSIVE). PACKING GROUP: II. SUBSIDIARY HAZARD CLASS: N/A. IDENTIFICATION NUMBER: UN 1778. PLACARDING REQUIREMENTS: CORROSIVE.
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Regulatory Information
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Federal Regulatory Information: EP
A HAZARDOUS SUBSTANCE: NO. REPORTABLE
QUANTITY: N/A. RCRA STATUS OF UNUSED MATERIAL IF DISCARDED: NOT LISTED.
HAZARDOUS WASTE NUMBER: NOT LISTED.
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Other Information
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Other Information: ADDITIONAL COMMENTS: FOR INTERNATIONAL TRANSPORTATION. FLUOROSILIC ACID IS REGULATED BY THE INTERNATIONAL MARITIME ORGANIZATION (IMO) AND THE INTERNATIONAL AIR TRANSPORT (IATA) FOR VESSEL AND AIR MOVEMENT AS A CLASS 8. PACKAGING, MARKING, LABELING AND SHIPPING PAPER DESCRIPTION MUST PRECISELY REFLECT REGULATION FOR EXPORT MOVEMENT.
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Transportation Information
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Responsible Party Cage: 0K1E4
Trans ID NO: 93279
Product ID: FLUOROSILICIC ACID
MSDS Prepared Date: 03/01/1999
Review Date: 07/29/2000
MFN: 2
Net Unit Weight: 140 LBS
Multiple KIT Number: 0
Review IND: Y
Unit Of Issue
: DR
Container QTY: 0
Type Of Container: DRUM
Additional Data: PROPER SHIPPING NAME, UN ID NUMBER, PACKING GROUP AND DOT HAZARD CLASS PER MSDS. "FORBIDDEN BY AIR". THE MAXIMUM ALLOWED BY PASSENGER AIRCRAFT IS 1L AND BY AIR CARGO IS: 30 LITERS.
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Detail DOT Information
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DOT PSN Code: GMU
DOT Proper Shipping Name: FLUOROSILICIC ACID
Hazard Class: 8
UN ID Num: UN1778
DOT Packaging Grou

p: II
Label: CORROSIVE
Special Provision: A6,A7,B2,B15,N3,N34,T12,T27
Packaging Exception: NONE
Non Bulk Pack: 202
Bulk Pack: 242
Max Qty Pass: 1 L
Max Qty Cargo: 30 L
Vessel Stow Req: A

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Detail IMO Information
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IMO PSN Code: HLP
IMO Proper Shipping Name: FLUOROSILICIC ACID
IMDG Page Number: 8176
UN Number: 1778
UN Hazard Class: 8
IMO Packaging Group: II
Subsidiary Risk Label: -
EMS Num
ber: 8-06
MED First Aid Guide NUM: 750

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Detail IATA Information
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IATA PSN Code: XXX
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Detail AFI Information
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AFI PSN Code: XXX
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HAZCOM Label
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Product ID: FLUOROSILICIC
ACID
Cage: 0K1E4
Company Name: LUCIER CHEMICAL INDUSTRY DBA LCI LTD
Street: 415 PABLO AVE N
PO Box: 49000
City: JACKSONVILLE BEACH FL
Zipcode: 32240-9000
Health Emergency Phone: 904-241-1200/800-424-9300(CHEMTREC)
Label Required IND: Y
Date Of Label Review: 04/19/2001
Status Code: C
MFG Label NO: UNKNOWN
Label Date: 06/05/1998
Year Procured: 2000
Origination
Chronic Hazard IND: Y
Eye Protection IND: YES
Skin Protection IND: YES
Signal Word: DANGER
Health Hazard: Severe
Contact Hazard: Severe
F

ire Hazard: None

Reactivity Hazard: None

Hazard And Precautions: CORROSIVE! TARGET ORGANS:EYES, SKIN, RESPIRATORY & GI TRACTS. ACUTE-EYES/SKIN: CAUSES SEVERE BURNS, EYE DAMGE. ORAL:CAUSES SEVERE BURNS OF MOUTH, THROAT, STOMACH. INHALE:SEVERE IRRITATION, PAIN. CHRONIC- MAY CAUSE FLUOROSIS, BONE CHANGES. STORE IN VENTILATED AREA, AWAY FROM INCOMPATIBLES. PICK UP SPILL WITH SAND. PLACE IN SUITABLE CONTAINER FOR DISPOSAL. FIRST AID- GET IMMEDIATE MEDICAL HELP FOR A LL CASES OF EXPOSUR

E.

EYES/SKIN:IMMEDIATELY FLUSH WITH WATER FOR AT LEAST15 MINUTES. HOLD EYELIDS OPEN. INHALED:MOVE TO FRESH AIR. PROVIDE CPR/OXYGEN IF NEEDED. ORAL:DO NOT INDUCE VOMITING. IF CONSCIOUS, DRINK LARGE AMOUNT OF MILK OR WATER.

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