

LCI LTD. -- SODIUM FLUORIDE

=====

MSDS Safety Information

=====

FSC: 6810

NIIN: 00-680-1079

MSDS Date: 03/01/1999

MSDS Num: CJQBF

Product ID: SODIUM FLUORIDE

MFN: 01

Responsible Party

Cage: TO289

Name: LCI LTD.

Address: UNK

Box: 49000

City: JACKSONVILLE BEACH FL 32240-9000

Info Phon

e Number: 304-241-1200

Emergency Phone Number: 904-241-1200

=====

Item Description Information

=====

Item Manager: S9G

Item Name: SODIUM FLUORIDE,TECHNICAL

Specification Number: NONE

Type/Grade/Class: NONE

Unit of Issue: BG

Quantitative Expression: 00000000100LB

UI Container Qty: 1

Type of Container: BAG

=====

Ingredients

=====

=====

Cas: 7681-49-4

RTECS #: WB0350000

Name: SODIUM FLUORIDE

Percent by Wt: 97.7

EPA Rpt Qty: 1000 LBS

DOT Rpt Qty: 1000 LBS

=====

Health Hazards Data

=====

LD50 LC50 Mixture: LD50 = 180 MG/KG (RAT)

Route Of Entry Inds - Inhalation: YES

Skin: YES

Ingestion: YES

Carcinogenicity Inds - NTP: NO

IARC: NO

OSHA: NO

Effects of Exposure: ACUTE: INHALATION OF DUST OR MIST MAY CA

USE SEVERE MUCOUS
MEMBRANE IRRITATION AND BURNS. EFFECTS MAY NOT BE IMMEDIATELY APPARENT,
ESPECIALLY WITH DILUTE SOLUTIONS. CHRONIC: CAUSES SEVERE SKIN IRRITATION AND
BURNS. INGESTION OR INHALATION MAY BE HARMFUL AND POSSIBLY FATAL DEPENDING ON
SEVERITY AND LENGTH OF OVER EXPOSURE. CHRONIC OVER EXPOSURE MAY CAUSE
FLUOROSIS. PRODUCT MAY BE ABSORBED THROUGH THE SKIN AND PRODUCE SIGNS OF
FLUOROSIS SUCH AS WEIGHT LOSS, BRITTLINESS OF BONES, ANEMIA, WEAKNESS AND
STIFFNESS OF JOINTS. IN

TERNAL BLEEDING MAY DEVELOP.

Explanation Of Carcinogenicity: NONE LISTED.

Signs And Symptoms Of Overexposure: IRRITATION, BURNS. CHRONIC OVER EXPOSURE
MAY CAUSE FLUOROSIS.

Medical Cond Aggravated By Exposure: ANY SKIN, RESPIRATORY OR MUCOUS MEMBRANE
CONDITIONS.

First Aid: INHALE: REMOVE TO FRESH AIR. IF BREATHING HAS STOPPED, PERFORM
ARTIFICIAL RESPIRATION. KEEP THIS PERSON WARM AND AT REST. GET MEDICAL
ATTENTION. EYE: FLUSH WITH LARGE AMOUNTS OF WATER, LIFTING THE UPPER AND
LOWER LID

DS AT PERIODIC INTERVALS TO INSURE CONTACT OF WATER WITH ALL
ACCESSIBLE TISSUE OF THE EYES AND LIDS. IMMEDIATE MEDICAL ATTENTION. SKIN:
USE SOAP AND MILD DETERGENT AND WATER TO WASH CONTAMINATED SKIN. REMOVE
CONTAMINATED CLOTHING. INGEST: IF CONSCIOUS, GIVE LARGE QUANTITIES OF WATER
IMMEDIATELY. DO NOT INDUCE VOMITING. SEVERAL GLASSES OF MILK MAY BE GIVEN FOR
SOOTHING EFFECT. CALL A PHYSICIAN.

=====

Handling and Disposal

=====

=====

Spill Release Procedures: ANY PERSONNEL IN AREA SHOULD WEAR A NIOSH APPROVED
PROTECTIVE CLOTHING AND BREATHING APPARATUS. ISOLATE PRODUCT SPILL AREA.
CAREFULLY SHOVEL MATERIAL AND PLACE IN CLEAN, DRY CONTAINER AND COVER. REMOVE
CONTAINER FROM SPILL SITE AND DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE,
AND LOCAL REGULATIONS.

Waste Disposal Methods: CONTACT CHEMTREC AT 1-800-424-9300 FOR 24-HOUR
EMERGENCY ASSISTANCE. FOLLOW ALL FEDERAL, STATE, AND
LOCAL REGULATIONS.

Handling And Storage Precautions: STORE IN A COOL, DRY PLACE AND AWAY FROM
ACIDS. USE ONLY WITH ADEQUATE VENTILATION, DUST MASK OR SELF-CONTAINED
BREATHING APPARATUS. PROTECTIVE CLOTHING SHOULD ALWAYS BE WORN. AVOID CONTACT
WITH EYES, SKIN, AND CLOTHING. KEEP BAG OR CONTAINERS CLOSED WHEN NOT IN
USE.

Other Precautions: AVOID BREATHING DUST OR MIST.

=====

Fire and Explosion Hazard Information

=====

=====

Flash Point Text: NON COMBUSTIBLE

Extinguishing Media: THIS CHEMICAL IS NOT FLAMMABLE,BUT FOR FIRES WHERE THIS CHEMICAL IS STORED, USE FOAM,DRY CHEMICALS OR CARBON DIOXIDE.

Fire Fighting Procedures: ALTHOUGH THIS CHEMICAL IS NOT FLAMMABLE,WHEN HEATED TO TEMPERATURES SUCH AS FIRE, IT WILL RELEASE HYDROGEN FLUORIDE GAS.

Unusual Fire/Explosion Hazard: FIREFIGHTERS SHOULD AVOID ALL BODILY CONTACT, WEAR FULL PROTECTIVE CLOTHING AND SELF-CONTAINED BREATHING APPARATUS.

=====

Control Measures

=====

Respiratory Protection: USE NIOSH-APPROVED SINGLE-USE DUST RESPIRATOR. SELF-CONTAINED BREATHING APPARATUS REQUIRED WHEN DEALING WITH SPILLS OR WHEN HEATED TO DECOMPOSITION.

Ventilation: ADEQUATE VENTILATION TO MAINTAIN FLUORIDE CONCENTRATIONS BELOW APPLICABLE STANDARDS.

Protective Gloves: IMPERVIOS GLOVES

Eye Protection: SPLASH-PROOF GOGGLES

Other Protective

Equipment: PROTECTIVE IMPERVOUS CLOTHING SHOULD BE WORN IN PRESENCE TO PREVENT CONTACT WITH SKIN(COVERALLS,BOOTS,ETC).

Work Hygienic Practices: PROTECT OPEN WOUNDS.HEATING TO DECOMPOSITION REQUIRES FULL PROTECTIVE CLOTHING AND SELF-CONTAINED BREATHING APPARATUS.

=====

Physical/Chemical Properties

=====

HCC: T4

Boiling Point: =1704.C, 3099.2F

Melt/Freeze Pt: =992.C, #####F

Spec Gravity: 2.

56

PH: ~7

Solubility in Water: 4G/100G OFH2O

Appearance and Odor: WHITE,CRYSTALLINE POWDER;NO ODOR

=====

Reactivity Data

=====

Stability Indicator: YES

Stability Condition To Avoid: EXTREME TEMPERATURES,SUCH AS FIRES,THEY WILL CAUSE DECOMPOSITION OF HYDROFLUORIC ACID AND FLUORINE

Materials To Avoid: STRONG ACIDS WILL PRODUCE HYDROGEN FLUORIDE.

Hazardous Decomposition Products: HYDROFLUORIC ACID

AND FLUORINE
Hazardous Polymerization Indicator: NO

=====

Toxicological Information

=====

=====

Ecological Information

=====

=====

MSDS Transport Information

=====

Transport Information: DOT: SODI
UM FLUORIDE, HAZARD CLASS 6.1, PACKAGING GROUP
III. UN 1690

=====

Regulatory Information

=====

Other Information

=====

Transportation Information

=====

Responsible Party Cage: TO289
T
rans ID NO: 149265
Product ID: SODIUM FLUORIDE
MSDS Prepared Date: 03/01/1999
Review Date: 10/15/1999
MFN: 1
Net Unit Weight: 100 LB BAG
Multiple KIT Number: 0
Unit Of Issue: BG
Container QTY: 1
Type Of Container: BAG

=====

Detail DOT Information

=====

DOT PSN Code: NFI
DOT Proper Shipping Name: SODIUM FLUORIDE
Hazard Class: 6.1
UN ID Num: UN1690
DOT Packaging Group: III
Label: KEEP AWAY FROM FOO

D
Special Provision: T8
Packaging Exception: 153
Non Bulk Pack: 213
Bulk Pack: 240
Max Qty Pass: 100 KG
Max Qty Cargo: 200 KG
Vessel Stow Req: A
Water/Ship/Other Req: 26

=====

Detail IMO Information

=====

IMO PSN Code: NRR
IMO Proper Shipping Name: SODIUM FLUORIDE, SOLID
IMDG Page Number: 6258
UN Number: 1690
UN Hazard Class: 6.1
IMO Packaging Group: III
Subsidiary Risk Label: -
EMS Number: 6.1-0
4
MED First Aid Guide NUM: 750

=====

Detail IATA Information

=====

IATA PSN Code: WQB
IATA UN ID Num: 1690
IATA Proper Shipping Name: SODIUM FLUORIDE
IATA UN Class: 6.1
IATA Label: TOXIC
UN Packing Group: III
Packing Note Passenger: 619
Max Quant Pass: 100KG
Max Quant Cargo: 200KG
Packaging Note Cargo: 619

=====

Detail AFI Information

=====

AFI PSN Code: WQB
AFI Proper Shipping Name: SODIUM FLUORIDE
AFI Hazard Class: 6.1
AFI UN ID NUM: UN1690
AFI Packing Group: III
Special Provisions: P5
Back Pack Reference: A10.6

=====

HAZCOM Label

=====

Product ID: SODIUM FLUORIDE
Cage: TO289
Assigned IND: Y
Company Name: LCI LTD.
Street: UNK
PO Box: 49000
City: JACKSONVILLE BEACH FL
Zipcode: 32240-9000

Health Emergency Phone: 904-241-1200

Label Required IND: Y

Date Of Label Review: 10/15/1999

Status Code: A

Origination Code: F

Eye Protection IND: YES

Skin Protection IND: YES

Signal Word: WARNING

Respiratory Protection IND: YES

Health Hazard: Moderate

Contact Hazard: Slight

Fire Hazard: None

Reactivity Hazard: None

Hazard And Precautions: ACUTE: INHALATION OF DUST OR MIST MAY CAUSE SEVERE MUCOUS MEMBRANE IRRITATION AND BURNS. EFFECTS MAY NOT BE IMMEDIATELY APPARENT, ESPECIALLY WITH DILUTE

SOLUTIONS. CHRONIC: CAUSES SEVERE SKIN

IRRITATION AND BURNS. INGESTION OR INHALATION MAY BE HARMFUL AND POSSIBLY FATAL DEPENDING ON SEVERITY AND LENGTH OF OVER EXPOSURE. CHRONIC OVER EXPOSURE MAY CAUSE FLUOROSIS. PRODUCT MAY BE ABSORBED THROUGH THE SKIN AND PRODUCE SIGNS OF FLUOROSIS SUCH AS WEIGHT LOSS, BRITTLINESS OF BONES, ANEMIA, WEAKNESS AND STIFFNESS OF JOINTS. INTERNAL BLEEDING MAY DEVELOP.

Product ID: SODIUM FLUORIDE

Cage: 1LFJ4

Company Name: CHEMICAL MANAGEMENT SYSTEMS LLC DB

A CHEMICAL MANAGEMENT SYST

Street: 11029 NATURAL BRIDGE

City: BRIDGETON MO

Zipcode: 63044

Health Emergency Phone: 904-241-1200

Label Required IND: Y

Date Of Label Review: 10/15/1999

Status Code: A

Origination

Eye Protection IND: YES

Skin Protection IND: YES

Signal Word: WARNING

Respiratory Protection IND: YES

Health Hazard: Moderate

Contact Hazard: Slight

Fire Hazard: None

Reactivity Hazard: None

Hazard And Precautions

PRECAUTIONS: INHALATION: IF A PERSON BREATHE IN CHEMICAL DUST OR MIST, REMO

VE

EXPOSED PERSON TO FRESH AIR. EYE CONTACT: FLUSH WITH LARGE AMOUNTS OF WATER, LIFTING EYELIDS AT PERIODIC INTERVALS TO INSURE CONTACT OF WATER WITH ALL ACCESSIBLE TISSUE OF THE EYE AND EYELIDS. SKIN: WASH CONTAMINATED SKIN USING SOAP OR MILD DETERGENT AND WATER. INGEST: IF CONSCIOUS, GIVE THE EXPOSED PERSON LARGE QUANTITIES OF WATER IMMEDIATELY. DO NOT INDUCE VOMITING. SEE MSDS FOR ADDITIONAL INFORMATION. STORE THE MATERIAL IN A COOL, DRY PLACE AND AWAY FROM ACIDS. USE ONLY WITH ADEQUATE VENTILATION.

=====

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, states, or intends said information to have any application, use or viability by or to any person or persons outside the Department of Defense nor any person or persons contracting with any instrumentality of the United States of America and disclaims all liability for such use. Any person utilizing this instruction who is not a military or civilian employee of the United States of America should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation regardless of similarity to a corresponding Department of Defense or other government situation.