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Material Safety Data Sheet

Transportation Emergency: 1-800-451-8346

Date last revised: June 4, 2008

Date printed: June 4, 2008

SECTION 1. ----- CHEMICAL IDENTIFICATION -----

CATALOG #: M020-2-06
NAME: CALCIUM FLUORIDE
SYNONYMS: ACID-SPAR * CALCIUM DIFLUORIDE * FLUORSPAR *
IRTRAN 3 * LIPARITE * MET-SPAR

SECTION 2. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

CAS #: 7789-75-5
MF: $\text{CAF}_2 = 78.08$

SECTION 3. ----- HAZARDS IDENTIFICATION -----

LABEL PRECAUTIONARY STATEMENTS

IRRITANT.
IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.

HMIS RATING

HEALTH: 2
FLAMMABILITY: 0
REACTIVITY: 1

SECTION 4. ----- FIRST-AID MEASURES -----

ORAL EXPOSURE

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN.

INHALATION EXPOSURE

IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

DERMAL EXPOSURE

IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER.

EYE EXPOSURE

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES.

SECTION 5. ----- FIRE FIGHTING MEASURES -----

EXTINGUISHING MEDIA

SUITABLE: WATER SPRAY. CARBON DIOXIDE, DRY CHEMICAL POWDER, OR APPROPRIATE FOAM.

FIREFIGHTING

PROTECTIVE EQUIPMENT: WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.
SPECIFIC HAZARD(S): EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

WEAR RESPIRATOR, CHEMICAL SAFETY GOGGLES, RUBBER BOOTS, AND HEAVY RUBBER GLOVES.

METHODS FOR CLEANING UP

SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL. AVOID RAISING DUST. VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7. ----- HANDLING AND STORAGE-----

HANDLING

USER EXPOSURE: DO NOT BREATHE DUST. AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. AVOID PROLONGED OR REPEATED EXPOSURE.

STORAGE

SUITABLE: KEEP TIGHTLY CLOSED.

SPECIAL REQUIREMENTS

HYGROSCOPIC.

SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION-----

ENGINEERING CONTROLS

SAFETY SHOWER AND EYE BATH. MECHANICAL EXHAUST REQUIRED.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY: USE RESPIRATORS AND COMPONENTS TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN (EU). WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING RESPIRATORS ARE APPROPRIATE USE A DUST MASK TYPE N95 (US) OR TYPE P1 (EN 143) RESPIRATOR.

HAND: COMPATIBLE CHEMICAL-RESISTANT GLOVES.

EYE: CHEMICAL SAFETY GOGGLES.

GENERAL HYGIENE MEASURES

WASH THOROUGHLY AFTER HANDLING.

EXPOSURE LIMITS, RTECS

<u>COUNTRY</u>	<u>SOURCE</u>	<u>TYPE</u>	<u>VALUE</u>
USA	ACGIH	TWA	2.5 mg(F)/m ³
USA	MSHA STANDARD-AIR	TWA	2.5 mg(F)/m ³
USA	OSHA	PEL	8H TWA 2.5 mg(F)/m ³
USA	NIOSH	TWA	2.5 mg(F)/m ³

SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES -----

APPEARANCE PHYSICAL STATE

SOLID
PHYSICAL PROPERTIES
DENSITY: 3.18 g/cm³
BOILING POINT: 2513 °C
MELTING POINT: 1360 °C

SECTION 10. -----STABILITY AND REACTIVITY -----

STABILITY
STABLE: STABLE.
MATERIALS TO AVOID: ACIDS.
HAZARDOUS DECOMPOSITION PRODUCTS
HAZARDOUS DECOMPOSITION PRODUCTS: HYDROGEN FLUORIDE.
HAZARDOUS POLYMERIZATION
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

ROUTE OF EXPOSURE
SKIN CONTACT: CAUSES SKIN IRRITATION.
SKIN ABSORPTION: MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN.
EYE CONTACT: CAUSES EYE IRRITATION.
INHALATION: MAY BE HARMFUL IF INHALED. MATERIAL IS IRRITATING TO
MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.
INGESTION: MAY BE HARMFUL IF SWALLOWED.
SIGNS AND SYMPTOMS OF EXPOSURE
TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND
TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

TOXICITY DATA

ORAL	INTRAPERITONEAL
RAT	RAT
4250 mg/kg	>1500 mg/kg
LD50	LD50
REMARKS: LUNGS, THORAX, OR	INTRAPERITONEAL
RESPIRATION: RESPIRATORY	MOUSE
DEPRESSION. BEHAVIORAL: ATAXIA.	2638 mg/kg
BEHAVIORAL: SOMNOLENCE	LD50
(GENERAL DEPRESSED ACTIVITY).	

CHRONIC EXPOSURE - CARCINOGEN

RESULT: THIS PRODUCT IS OR CONTAINS A COMPONENT THAT IS NOT
CLASSIFIABLE AS TO ITS CARCINOGENICITY BASED ON ITS IARC, ACGIH,
NTP, OR EPA CLASSIFICATION.

ACGIH CARCINOGEN LIST

RATING: A4

CHRONIC EXPOSURE - TERATOGEN

SPECIES: MOUSE

DOSE: 67200 mg/kg

ROUTE OF APPLICATION: INTRAPERITONEAL

EXPOSURE TIME: (1-21D PREG)

RESULT: SPECIFIC DEVELOPMENTAL ABNORMALITIES: OTHER
DEVELOPMENTAL ABNORMALITIES.

CHRONIC EXPOSURE - MUTAGEN

SPECIES: RAT

DOSE: 1 g/kg

CELL TYPE: ASCITES TUMOR
MUTATION TEST: CYTOGENETIC ANALYSIS
CHRONIC EXPOSURE - REPRODUCTIVE HAZARD
SPECIES: MOUSE
DOSE: 3200 mg/kg
ROUTE OF APPLICATION: INTRAPERITONEAL
EXPOSURE TIME: (9D PREG)
RESULT: EFFECTS ON FERTILITY: POST-IMPLANTATION MORTALITY (E.G.,
DEAD AND/OR RESORBED IMPLANTS PER TOTAL NUMBER OF IMPLANTS).

SECTION 12. ----- ECOLOGICAL INFORMATION -----

DATA NOT YET AVAILABLE.

SECTION 13. ----- DISPOSAL CONSIDERATIONS -----

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION
CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE
OF THIS MATERIAL. DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE
SOLVENT AND BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN
AFTERBURNER AND SCRUBBER. OBSERVE ALL FEDERAL, STATE, AND LOCAL
ENVIRONMENTAL REGULATIONS.

SECTION 14. ----- TRANSPORT INFORMATION -----

DOT
UNRESTRICTED

SECTION 15. ----- REGULATORY INFORMATION -----

EU ADDITIONAL CLASSIFICATION
SYMBOL OF DANGER: Xi
INDICATION OF DANGER: IRRITANT.
R: 36/37/38
RISK STATEMENTS: IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.
S: 26
SAFETY STATEMENTS: IN CASE OF CONTACT WITH EYES, RINSE
IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.
US CLASSIFICATION AND LABEL TEXT
INDICATION OF DANGER: IRRITANT.
RISK STATEMENTS: IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.
SAFETY STATEMENTS: IN CASE OF CONTACT WITH EYES, RINSE
IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.
UNITED STATES REGULATORY INFORMATION
TSCA INVENTORY ITEM: YES

SECTION 16. ----- OTHER INFORMATION -----

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO
BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. SYNQUEST LABS, INC. SHALL
NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT
WITH THE ABOVE PRODUCT.