
SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

BASSTECH INTERNATIONAL LLC
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SUBSTANCE: BARIUM FLUORIDE

TRADE NAMES/SYNONYMS:

BARIUM DIFLUORIDE; BARIUM FLUORIDE (BAF2); BAF2; BTI02400; RTECS CQ9100000

CHEMICAL FAMILY: inorganic, salt

CREATION DATE: Feb 24 1997

REVISION DATE: Jun 19 2001

SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: BARIUM FLUORIDE
CAS NUMBER: 7787-32-8
EC NUMBER (EINECS): 232-108-0
PERCENTAGE: 100.0

SECTION 3 HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=2 FIRE=0 REACTIVITY=0

EMERGENCY OVERVIEW:

COLOR: colorless to white

PHYSICAL FORM: crystalline powder

ODOR: odorless

MAJOR HEALTH HAZARDS: harmful if swallowed

POTENTIAL HEALTH EFFECTS:

INHALATION:

SHORT TERM EXPOSURE: same as effects reported in other routes of exposure, irritation (possibly severe), nausea, difficulty breathing, asthma, lung congestion

LONG TERM EXPOSURE: same as effects reported in long term ingestion, lung damage

SKIN CONTACT:

SHORT TERM EXPOSURE: same as effects reported in short term ingestion, irritation (possibly severe)

LONG TERM EXPOSURE: same as effects reported in short term exposure

EYE CONTACT:

SHORT TERM EXPOSURE: irritation (possibly severe)

LONG TERM EXPOSURE: same as effects reported in short term exposure

INGESTION:

SHORT TERM EXPOSURE: burns, rash, metallic taste, ringing in the ears,

digestive disorders, difficulty breathing, irregular heartbeat, headache, drowsiness, dizziness, tingling sensation, visual disturbances, dilated pupils, bluish skin color, kidney damage, paralysis, convulsions, coma
LONG TERM EXPOSURE: no information on significant adverse effects

CARCINOGEN STATUS:

OSHA: No

NTP: No

IARC: No

SECTION 4 FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

SKIN CONTACT: Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

EYE CONTACT: Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

INGESTION: If a large amount is swallowed, get medical attention.

ANTIDOTE: calcium gluconate, intravenous; milk of magnesia. sodium sulfate solution, oral, gastric tube; potassium.

SECTION 5 FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Negligible fire hazard.

EXTINGUISHING MEDIA: Use extinguishing agents appropriate for surrounding fire.

FIRE FIGHTING: Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

SECTION 6 ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL RELEASE:

Collect spilled material in appropriate container for disposal.

SECTION 7 HANDLING AND STORAGE

STORAGE: Store and handle in accordance with all current regulations and standards. Store in a tightly closed container. Store in a cool, dry place. Store in a well-ventilated area. Keep separated from incompatible substances.

HANDLING: Use methods to minimize dust.

SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:

BARIUM FLUORIDE:

BARIUM, SOLUBLE COMPOUNDS (as Ba):

- 0.5 mg/m³ OSHA TWA
- 0.5 mg/m³ ACGIH TWA
- 0.5 mg/m³ NIOSH recommended TWA 10 hour(s)

INORGANIC FLUORIDES (as F):

- 2.5 mg/m³ OSHA TWA
- 2.5 mg/m³ ACGIH TWA
- 2.5 mg/m³ NIOSH recommended TWA 10 hour(s)

VENTILATION: Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

EYE PROTECTION: Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

CLOTHING: Wear appropriate chemical resistant clothing.

GLOVES: Wear appropriate chemical resistant gloves.

RESPIRATOR: Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use.

Measurement Element:

Barium (Ba)

5 mg/m³

Any dust and mist respirator except single-use and quarter-mask respirators.
Any supplied-air respirator.

12.5 mg/m³

Any supplied-air respirator operated in a continuous-flow mode.
Any powered, air-purifying respirator with a dust and mist filter.

25 mg/m³

Any air-purifying respirator with a full facepiece and a high-efficiency particulate filter.
Any supplied-air respirator with a tight-fitting facepiece that is operated in a continuous-flow mode.
Any powered, air-purifying respirator with a tight-fitting facepiece and a high-efficiency particulate filter.
Any self-contained breathing apparatus with a full facepiece.
Any supplied-air respirator with a full facepiece.

50 mg/m³

Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode.

Escape -

Any air-purifying respirator with a full facepiece and a high-efficiency particulate filter.
Any appropriate escape-type, self-contained breathing apparatus.

For Unknown Concentrations or Immediately Dangerous to Life or Health -

Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a

separate escape supply.
Any self-contained breathing apparatus with a full facepiece.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: solid
COLOR: colorless to white
PHYSICAL FORM: crystalline powder
ODOR: odorless
MOLECULAR WEIGHT: 175.32
MOLECULAR FORMULA: BA-F2
BOILING POINT: 3879 F (2137 C)
MELTING POINT: 2336-2471 F (1280-1355 C)
VAPOR PRESSURE: Not applicable
VAPOR DENSITY: Not applicable
SPECIFIC GRAVITY (water=1): 4.89
WATER SOLUBILITY: 0.12%
PH: Not applicable
VOLATILITY: Not applicable
ODOR THRESHOLD: Not available
EVAPORATION RATE: Not applicable
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available
SOLVENT SOLUBILITY:
 Soluble: hydrochloric acid, nitric acid, hydrofluoric acid, ammonium
 chloride solutions, ammonium chloride solutions

SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

CONDITIONS TO AVOID: None reported.

INCOMPATIBILITIES: acids, oxidizing materials

HAZARDOUS DECOMPOSITION:

 Thermal decomposition products: acid halides, oxides of barium

POLYMERIZATION: Will not polymerize.

SECTION 11 TOXICOLOGICAL INFORMATION

BARIUM FLUORIDE:

TOXICITY DATA:

 250 mg/kg oral-rat LD50

ACUTE TOXICITY LEVEL:

 Toxic: ingestion

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: central nervous system disorders,
 bone, joint or tooth disorders, eye disorders, kidney disorders, respiratory
 disorders, skin disorders and allergies

REPRODUCTIVE EFFECTS DATA: Available.

ADDITIONAL DATA: May cross the placenta. May be excreted in breast milk.

SECTION 12 ECOLOGICAL INFORMATION

Not available

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations. Hazardous Waste Number(s): D005. Dispose of in accordance with U.S. EPA 40 CFR 262 for concentrations at or above the Regulatory level. Regulatory level- 100.0 mg/L. Dispose in accordance with all applicable regulations.

SECTION 14 TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION: No classification assigned.

SECTION 15 REGULATORY INFORMATION

U.S. REGULATIONS:

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4): Not regulated.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30):
Not regulated.

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.40):
Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):
ACUTE: Yes
CHRONIC: Yes
FIRE: No
REACTIVE: No
SUDDEN RELEASE: No

SARA TITLE III SECTION 313 (40 CFR 372.65):
BARIUM, SOLUBLE COMPOUNDS (as Ba)

OSHA PROCESS SAFETY (29CFR1910.119): Not regulated.

STATE REGULATIONS:

California Proposition 65: Not regulated.

CANADIAN REGULATIONS:

WHMIS CLASSIFICATION: Not determined.

EUROPEAN REGULATIONS:

EC CLASSIFICATION (CALCULATED):
Xn Harmful

DANGER/HAZARD SYMBOL:

Xn Harmful

EC RISK AND SAFETY PHRASES:

R 22 Harmful if swallowed.
R 64 May cause harm to breastfed babies.

S 2 Keep out of reach of children.
S 13 Keep away from food, drink and animal feedingstuffs.
S 24 Avoid contact with skin.
S 36 Wear suitable protective clothing.
S 46 If swallowed, seek medical advice immediately and show this container or label.

NATIONAL INVENTORY STATUS:

U.S. INVENTORY (TSCA): Listed on inventory.

TSCA 12(b) EXPORT NOTIFICATION: Not listed.

CANADA INVENTORY (DSL): Not determined.

CANADA INVENTORY (NDSL): Not determined.

SECTION 16 OTHER INFORMATION

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