

MATERIAL SAFETY DATA SHEET

Ashland Chemical Co.

Page 001
Date Prepared: 01/21/98
Date Printed: 05/29/99
MSDS No: 308.0279845-002.003

AMMONIUM FLUORIDE 40% CR

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: AMMONIUM FLUORIDE 40% CR
Product Code: 3019244
General or Generic ID: BLEND

Company

Ashland Chemical Co.
P.O. Box 2219
Columbus, OH 43216
614-790-3333

Emergency Telephone Number:

1-800-ASHLAND (1-800-274-5263)
24 hours everyday

Regulatory Information Number:
1-800-325-3751

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
WATER	7732-18-5	58.0- 62.0
AMMONIUM FLUORIDE	12125-01-8	38.0- 42.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

Can cause severe eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure eye tissue.

Skin

May cause mild skin irritation. Symptoms may include redness and burning of skin.

Swallowing

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

Inhalation

This material is a dust or may produce dust. Breathing this material may be harmful or fatal. Symptoms may include severe irritation and burns to the nose, throat, and respiratory tract.

Symptoms of Exposure

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea).

Target Organ Effects

No data

Developmental Information

No data

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Cancer Information

No data

Other Health Effects

No data

Primary Route(s) of Entry

Inhalation, Skin absorption, Skin contact.

4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Swallowing

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Note to Physicians

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: lung (for example, asthma-like conditions).

5. FIRE FIGHTING MEASURES

Flash Point

Not applicable

Explosive Limit

Not applicable

Autoignition Temperature

No data

Hazardous Products of Combustion

May form: ammonia, fluoride compounds, hydrogen fluoride, nitrogen compounds.

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Fire and Explosion Hazards

No special fire hazards are known to be associated with this product.

Extinguishing Media

water fog.

Fire Fighting Instructions

Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

NFPA Rating

Health - 3, Flammability - 0, Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES

Small Spill

Absorb liquid on vermiculite, floor absorbent or other absorbent material.

Large Spill

Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Skin Protection

Wear resistant gloves (consult your safety equipment supplier).. To prevent repeated or prolonged skin contact, wear impervious clothing and boots..

Respiratory Protections

If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

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Engineering Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Exposure Guidelines

Component

WATER (7732-18-5)
No exposure limits established

AMMONIUM FLUORIDE (12125-01-8)
No exposure limits established

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point

(for product) 212.0 F (100.0 C) @ 760 mmHg

Vapor Pressure

(for component) 17.500 mmHg @ 68.00 F

Specific Vapor Density

> 1.000 @ AIR=1

Specific Gravity

1.112 @ 77.00 F

Liquid Density

9.260 lbs/gal @ 77.00 F
1.112 kg/l @ 25.00 C

Percent Volatiles

> 60.0 %

Evaporation Rate

SLOWER THAN ETHYL ETHER

Appearance

No data

State

LIQUID

Physical Form

HOMOGENEOUS SOLUTION

Color

COLORLESS

Odor

No data

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pH
No data

10. STABILITY AND REACTIVITY

Hazardous Polymerization

Product will not undergo hazardous polymerization.

Hazardous Decomposition

May form: ammonia, fluoride compounds, hydrogen fluoride, nitrogen compounds.

Chemical Stability

Stable.

Incompatibility

Avoid contact with: strong mineral acids.

11. TOXICOLOGICAL INFORMATION

No data

12. ECOLOGICAL INFORMATION

No data

13. DISPOSAL CONSIDERATION

Waste Management Information

Dispose of in accordance with all applicable local, state and federal regulations.

14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101

DOT Description:

AMMONIUM FLUORIDE, 6.1, UN2505, III

Container/Mode:

55 GAL DRUM/TRUCK PACKAGE

NOS Component:

None

RQ (Reportable Quantity) - 49 CFR 172.101

Product Quantity (lbs) Component

250

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15. REGULATORY INFORMATION

US Federal Regulations

TSCA (Toxic Substances Control Act) Status

TSCA (UNITED STATES) The intentional ingredients of this product are listed.

CERCLA RQ - 40 CFR 302.4(a)

Component	RQ (lbs)
AMMONIUM FLUORIDE	100

CERCLA RQ - 40 CFR 302.4(b)

Materials without a "listed" RQ may be reportable as an "unlisted hazardous substance". See 40 CFR 302.5 (b).

SARA 302 Components - 40 CFR 355 Appendix A

None

Section 311/312 Hazard Class - 40 CFR 370.2

Immediate(x) Delayed() Fire() Reactive() Sudden Release of Pressure()

SARA 313 Components - 40 CFR 372.65

None

International Regulations

Inventory Status

Not determined

State and Local Regulations

California Proposition 65

None

New Jersey RTK Label Information

AMMONIUM FLUORIDE

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Pennsylvania RTK Label Information

AMMONIUM FLUORIDE ((NH4)F)

12125-01-8

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.