

# Material Safety Data Sheet

## Ammonium hydrogen fluoride / Aminoethylethanolamine (1/1)

ACC# 10012

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Ammonium hydrogen fluoride / Aminoethylethanolamine (1/1)

**Catalog Numbers:** AC381200000

**Synonyms:**

**Company Identification:**

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01

**For emergencies in the US, call CHEMTREC:** 800-424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
111-41-1	Aminoethylethanolamine	50%	203-867-5
1341-49-7	Ammonium hydrogen fluoride	50%	215-676-4

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Not available.

**Target Organs:** Respiratory system, skeletal structures, eyes, skin.

#### Potential Health Effects

**Eye:** Causes eye burns.

**Skin:** Causes skin burns. May cause sensitization by skin contact.

**Ingestion:** Causes gastrointestinal tract burns. Causes severe digestive tract burns with abdominal pain, vomiting, and possible death. May cause headache. May cause nausea and vomiting. Toxic if swallowed.

**Inhalation:** May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. Causes chemical burns to the respiratory tract. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema.

**Chronic:** Chronic inhalation and ingestion may cause chronic fluoride poisoning (fluorosis) characterized by weight loss, weakness, anemia, brittle bones, and stiff joints. May cause digestive tract disturbances. Possible risk of harm to the unborn child.

### Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin:** Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:** Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Notes to Physician:** Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

**Extinguishing Media:** Use water spray to cool fire-exposed containers. Use foam, dry chemical, or carbon dioxide.

**Flash Point:** Not available.

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** 3 - health, 1 - flammability, 0 - instability

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

### Section 7 - Handling and Storage

**Handling:** Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Use only in a chemical fume hood.  
**Storage:** Keep away from heat and flame. Store in a cool, dry place. Store in a tightly closed container. Corrosives area.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Aminoethylethanolamine	none listed	none listed	none listed
Ammonium hydrogen fluoride	2.5 mg/m3 TWA (as F) (listed under Fluorides).	2.5 mg/m3 TWA (inorganic solids, as F) (listed under Fluorides, inorganic).	2.5 mg/m3 TWA (as F) (listed under Fluorides).2.5 mg/m3 TWA (as F) (listed under Fluorides).

**OSHA Vacated PELs:** Aminoethylethanolamine: No OSHA Vacated PELs are listed for this chemical. Ammonium hydrogen fluoride: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Not available.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

**Physical State:** Viscous liquid

**Appearance:** Not available.

**Odor:** Not available.

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:**Not available.

**Viscosity:** Not available.

**Boiling Point:** Not available.

**Freezing/Melting Point:**Not available.

**Decomposition Temperature:**Not available.

**Solubility:** Not available.

**Specific Gravity/Density:**Not available.

**Molecular Formula:**H5F2N.C14H12N2O

**Molecular Weight:**161.54

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures. Hygroscopic: absorbs moisture or water from the air.

**Conditions to Avoid:** Incompatible materials, moisture, exposure to moist air or water, temperatures above 300°C.

**Incompatibilities with Other Materials:** Metals, strong oxidizing agents, oxidizing agents, acids, bases, copper, copper alloys, glass, iron, zinc.

**Hazardous Decomposition Products:** Nitrogen oxides, carbon monoxide, carbon dioxide, hydrogen fluoride gas, ammonia and/or derivatives.

**Hazardous Polymerization:** Has not been reported

## Section 11 - Toxicological Information

### RTECS#:

**CAS#** 111-41-1: KJ6300000

**CAS#** 1341-49-7: BQ9200000

### LD50/LC50:

**CAS#** 111-41-1:

Dermal, guinea pig: LD50 = 1800 uL/kg;

Draize test, rabbit, eye: 50 mg Severe;

Oral, mouse: LD50 = 3550 mg/kg;

Oral, rabbit: LD50 = 2 gm/kg;

Oral, rat: LD50 = 3 gm/kg;

Skin, rabbit: LD50 = 3560 uL/kg;

Skin, rat: LD50 = 2250 mg/kg;

**CAS#** 1341-49-7:

### Carcinogenicity:

**CAS#** 111-41-1: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 1341-49-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No data available.

**Teratogenicity:** No data available.

**Reproductive Effects:** No data available.

**Mutagenicity:** No data available.

**Neurotoxicity:** No data available.

**Other Studies:**

## Section 12 - Ecological Information

No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	Not regulated as a hazardous material	No information available.
<b>Hazard Class:</b>		
<b>UN Number:</b>		
<b>Packing Group:</b>		

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 111-41-1 is listed on the TSCA inventory.

CAS# 1341-49-7 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

CAS# 1341-49-7: 100 lb final RQ; 45.4 kg final RQ

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 111-41-1: immediate.

CAS # 1341-49-7: immediate, delayed.

#### Section 313

No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act:

CAS# 1341-49-7 is listed as a Hazardous Substance under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 111-41-1 can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts.

CAS# 1341-49-7 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, (listed as Fluorides, inorganic), Minnesota, (listed as Fluorides), Massachusetts.

### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

#### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

T C

#### Risk Phrases:

R 25 Toxic if swallowed.

R 34 Causes burns.  
R 43 May cause sensitization by skin contact.  
R 63 Possible risk of harm to the unborn child.  
R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety Phrases:**

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
S 37 Wear suitable gloves.  
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**WGK (Water Danger/Protection)**

CAS# 111-41-1: 1  
CAS# 1341-49-7: 1

**Canada - DSL/NDSL**

CAS# 111-41-1 is listed on Canada's DSL List.  
CAS# 1341-49-7 is listed on Canada's DSL List.

**Canada - WHMIS**

WHMIS: Not available.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

CAS# 111-41-1 is listed on the Canadian Ingredient Disclosure List.  
CAS# 1341-49-7 (listed as Fluorides, inorganic) is listed on the Canadian Ingredient Disclosure List.

<b>Section 16 - Additional Information</b>
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**MSDS Creation Date:** 9/20/2004

**Revision #0 Date:** Original.

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