

Safety Data Sheet

Section 1 IDENTIFICATION

GHS Product identifier: Ammonium hydrogen difluoride, solid.

Other means of identification: Ammonium Bifluoride

Recommended use of the chemical and restrictions on use: This material can be used as chemical agent, glass etching agent, disinfectant, preservative, etc.

Supplier's details: Connection Chemical, LP

Address: 126 South State Street, Suite 200 Newtown, PA 18940 USA

Phone Number: +1-215-493-4240

Emergency phone number: CHEMTREC 1-800-424-9300

Section 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Acute toxicity, oral Category 3

Skin corrosion/irritation Category 1B

Serious eye damage/eye irritation Category 1

GHS Label elements, including precautionary statements:



Signal word: Danger

Hazard statement(s): Toxic if swallowed. Causes severe skin burns and eye damage.

Precautionary statement(s):

Precaution:

Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dusts or mists. Wear protective gloves/protective clothing/eye protection/face protection.

Response:

If swallowed: Immediately call a poison center/doctor. Specific treatment (see under for further information). Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor. Specific treatment (see under for further information). If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.

Storage:

Store locked up.

Disposal:

Dispose of contents/container in accordance with local/regional/national/international

regulations. **Other hazards which do not result in classification:** no data available

Section 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration%
Ammonium hydrogen difluoride	1341-49-7	98%

Section 4 FIRST AID MEASURES

Description of necessary first aid measures

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If Ingestion: Rinse mouth with water. Do not induce vomit. Consult a physician.

Most important symptoms/effects, acute and delayed: no data available

Indication of immediate medical attention and special treatment needed, if necessary: no data available

Section 5 FIREFIGHTING MEASURES

Suitable extinguishing media: Use chemical powder, etc.

Special hazards arising from the chemical: This material may decompose and burn at high temperature and fire and release toxic fumes.

Special protective actions for fire-fighters: Wear self-contained breathing apparatus for firefighting if necessary. Use water spray to cool unopened containers.

Section 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

Environmental precautions: Do not enter into spillage area. Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up: Contain spillage, and then collect in a clean container according to local regulations.

Section 7 HANDLING AND STORAGE

Precautions for safe handling: Wear protective gloves/eye protection/face protection/protective clothing. Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking.

Conditions for safe storage, including any incompatibilities: Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep away from flammable materials and

oxidizers.

Section 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters: no data available

Appropriate engineering controls: Local exhaust ventilation or a process enclosure ventilation system may be required.

Individual protection measures

Eye/face protection: Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.

Skin protection: Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber. Impervious clothing,

Respiratory protection: Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant.

Thermal hazards: no data available

Section 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, colour etc)	White crystal powder.
Odour	no data available
Odour Threshold	no data available
pH	no data available
Melting point/freezing point	125°C.
Initial boiling point and boiling range	230°C.
Flash point	no data available
Evaporation rate	no data available
Flammability (solid, gas)	no data available
Upper/lower flammability or explosive limits	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Solubility(ies)	630 g/L(20°C).
Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available

Section 10 STABILITY AND REACTIVITY

Reactivity: no data available

Chemical stability: The material is stable in normal temperature.

Possibility of hazardous reactions: Aqueous solution of this material is a kind of weak acid. It can corrode glass.

Conditions to avoid: Spark, high temperature, moisture air and static electricity.

Incompatible materials: Oxidizers and flammable materials.

Hazardous decomposition products: Nitrogen oxides, hydrogen fluoride, etc.

Section 11 TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure: Inhaled, swallowed, skin, eyes.

Symptoms related to the physical, chemical and toxicological characteristics: no data available

Acute health effects: Accidental ingestion of the material may be corrosive and cause cough and throat pain. Oral intake is corrosive to the mouth and cause headache, giddiness, vomit and other symptoms. This material may cause skin and eyes burn.

Chronic health effects: The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may produce respiratory tract irritation. Symptoms of pulmonary irritation may include coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and a burning sensation. The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterized by skin redness (erythema) and swelling the epidermis.

Numerical measures of toxicity(such as acute toxicity estimates):

Inhalation (mouse) LC50: 342 ppm/1hr

Inhalation (rat) LC50: 1276 ppm/1hr

Oral (human) LDLo: 50 mg/kg

Oral (human) TDLo: 3 mg/kg

Section 12 ECOLOGICAL INFORMATION

Toxicity: no data available

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Other adverse effects: no data available

Section 13 DISPOSAL CONSIDERATIONS

Disposal methods: Burial in a land-fill specifically licensed to accept chemical. Reuse of broken container is forbidden.

Section 14 TRANSPORT INFORMATION

DOT(US)
UN number: 1727.

UN proper shipping name: AMMONIUM HYDROGENDIFLUORIDE, SOLID.

Transport hazard class(es) : 8.

Packing group, if applicable: II.

Environmental hazards: no data available

Special precautions for user: no data available

IMDG
UN number: 1727.

UN proper shipping name: AMMONIUM HYDROGENDIFLUORIDE, SOLID.

Transport hazard class(es) : 8.

Packing group, if applicable: II.

EMS No.: F-A, S-B.

Marine pollutant:No.

Section 15 REGULATORY INFORMATION

Regulations: This safety data sheet is in compliance with the following national standards: GB 16483-2008, GB 13690-2009, GB/T 15098-2008, GB 18218-2009, GB 15258-2009, GB 6944-2012, GB 190-2009, GB 191-2009, GB 12268-2008, GA 57-1993, GBZ 2-2007 as well as the following national regulations: Dangerous Goods Transport Administrative Regulation [Published by the Ministry of Railways, 2008], Dangerous Chemicals Safety Administrative Regulation [Published by the State Council, 2011].

Section 16 OTHER INFORMATION

References	UN Recommendations on the Transport of Dangerous Goods Model Regulations UN Globally Harmonized System of Classification and Labelling of Chemicals
Form Date	24-May-2014

Further information

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