

Revision: 16.03.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: <u>BUFFERD HYDROFLUORIC ACID 130</u> Article number: 130 **1.2 Relevant identified uses of the substance or mixture and uses advised against:** No further relevant information available.

1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier: DAIKIN INDUSTRIES, LTD. CHEMICALS DIVISION: Umeda Center Bldg., 4-12, Nakazaki-Nishi 2-chome, Kita-Ku, Osaka, JAPAN Phone: (+81) 6-6373-4345 Fax: (+81) 6-6373-4281

Further information obtainable from: http://www.daikin.com/ *1.4 Emergency telephone number: Japan:* +81-6-6349-7521 *China:* +86-512-5-232-0949, +86-21-34151689 *South Korea:* +82-2-568-1722 *Americas: CHEMTREC* +1-800-424-9300 (Outside US/Canada: +1-703-527-3887) *Europe:* +49-211-179 225-0

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008



Acute Tox. 3 H301 Toxic if swallowed.



STOT SE 2H371 May cause damage to organs.STOT RE 2H373 May cause damage to organs through prolonged or repeated exposure.



Met. Corr.1 H290 May be corrosive to metals. Skin Corr. 1A H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008: The product is classified and labelled according to the CLP regulation. Signal word: Danger

Hazard-determining components of labelling: Ammonium fluoride Ammonium bifluoride
Precautionary statements: P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405 Store locked up.



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P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 3: Composition/information on ingredients

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

Remove breathing equipment only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Seek immediate medical advice.

After inhalation:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

After rinsing with water thoroughly, apply 2.5% Ca-gluconate solution or Ca-gluconate gel immediately. Do not rub hard.

Apply the solution or the gel every 1-2 hours. Continue applying them every several hours even after the pain is eased.

If they are not at hand, keep rinsing with warm water for at least 30 minutes and call for a doctor immediately. Hand this SDS to the doctor.

Immediately wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water. Then consult an opthalmologist.

After swallowing:

Do not induce vomiting; Consult a doctor immediately.

Drink plenty of water and provide fresh air. Consult a doctor immediately.

4.2 Most important symptoms and effects, both acute and chronic: No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed:

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
5.2 Special hazards arising from the substance or mixture:
Formation of toxic gases is possible during heating or in case of fire.
5.3 Advice for firefighters:
Protective equipment:
Wear self-contained breathing apparatus and protective suit.

Wear fully protective suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Wear appropriate protective devices (See Section 8 Exposure Controls/Personal Protection).
Avoid contact with eyes and skin.
Do not inhale the product.
Wear protective clothing.
6.2 Environmental precautions:
Dilute with plenty of water.
Do not allow to enter sewers/surface or ground water.
6.3 Methods and material for containment and cleaning up:
For a small amount of leakage: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders) or collect in an empty container that can be sealed tightly.
Use neutralising agent.



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Dispose contaminated material as hazardous waste according to section 13.
Ensure adequate ventilation.
6.4 Reference to other sections:
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:

Ensure good ventilation/exhaustion at the workplace. Open and handle receptacle with care. Prevent formation of aerosols. Information about fire - and explosion protection: Keep respiratory protective device available. 7.2 Conditions for safe storage, including any incompatibilities: Storage Requirements to be met by storerooms and receptacles: Store only in the original receptacle. Provide acid-resistant floor. Information about storage in one common storage facility: Do not store together with alkalis (caustic solutions). Further information about storage conditions: Keep container tightly sealed. Store under lock and key and with access restricted to technical experts or their assistants only. 7.3 Specific end use(s): No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Appropriate engineering controls No further data; see item 7. Individual protection measures, such as personal protective equipment General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Store protective clothing separately. Avoid contact with the eyes and skin. Keep away from tobacco products. Respiratory protection: In case of brief exposure or low pollution use respiratory filter device.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. Hand protection



Protective gloves

Material of gloves: Fluorocarbon rubber

Penetration time of glove material The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed. **Eye/face protection**



Tightly sealed goggles



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Body protection: Acid resistant protective clothing. Boots Apron Full head, face and neck protection Protective work clothing

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical prope	rties
General Information	
Colour:	Colourless
Odour:	Pungent
Melting point/freezing point:	<i>ca15</i> ° <i>C</i>
Boiling point or initial boiling point and boiling range	No further information available.
Fundamental burning velocity:	
Lower and upper explosion limit	
Lower explosive limit:	No further information available.
Upper explosive limit:	No further information available.
Flash point:	Not applicable.
Auto-ignition temperature:	Product is not selfigniting.
рН	6
Solubility	
water:	Fully miscible.
Partition coefficient n-octanol/water (log value)	No further information available.
Vapour pressure:	No further information available.
Density and/or relative density	
Density at 20 °C:	1.115 g/cm ³
9.2 Other information:	
Appearance	
Form:	Liquid
Explosive properties:	Product does not present an explosion hazard.
Information with regard to physical hazard classes	
Explosives	Not applicable
Flammable gases	Not applicable
Aerosols	Not applicable
Oxidising gases	Not applicable
Gases under pressure	Not applicable
Flammable liquids	Not applicable
Flammable solids	Not applicable
Self-reactive substances and mixtures	Not applicable
Pyrophoric liquids	Not applicable
Pyrophoric solids	Not applicable
Self-heating substances and mixtures	Not applicable
Substances and mixtures, which emit flammable gases	5
in contact with water	Not applicable
Oxidising liquids	Not applicable
Oxidising solids	Not applicable
	Noi applicable
Organic peroxides	Not applicable
	* *
Organic peroxides Corrosive to metals May be corrosive to metals.	Not applicable
Organic peroxides Corrosive to metals	* *

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.
10.2 Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.



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10.3 Possibility of hazardous reactions: Reacts with alkali (lyes).
10.4 Conditions to avoid: No further relevant information available.
10.5 Incompatible materials: Glass, concrete and silicon
10.6 Hazardous decomposition products: Hydrogen fluoride

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 Acute toxicity Toxic if swallowed. LD/LC50 values relevant for classification: No further information available. Skin corrosion/irritation Causes severe skin burns and eye damage. Serious eye damage/irritation Causes serious eye damage. Respiratory or skin sensitisation Based on available data, the classification criteria are not met. Germ cell mutagenicity Based on available data, the classification criteria are not met. *Carcinogenicity* Based on available data, the classification criteria are not met. Reproductive toxicity Based on available data, the classification criteria are not met. STOT-single exposure May cause damage to organs. STOT-repeated exposure May cause damage to organs through prolonged or repeated exposure. Aspiration hazard Based on available data, the classification criteria are not met. 11.2 Information on other hazards Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: No further relevant information available. 12.2 Persistence and degradability: No further relevant information available. 12.3 Bioaccumulative potential: No further relevant information available. 12.4 Mobility in soil: No further relevant information available. 12.5 Results of PBT and vPvB assessment PBT: No further relevant information available. No further relevant information available. Not applicable. vPvB: No further relevant information available. No further relevant information available. Not applicable. 12.6 Endocrine disrupting properties For information on endocrine disrupting properties see section 11. 12.7 Other adverse effects: Additional ecological information: General notes: Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Must not reach sewage water or drainage ditch undiluted or unneutralised.

SECTION 13: Disposal considerations

13.1 Waste treatment methods Recommendation:

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging

Recommendation: Disposal must be made according to official regulations.



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Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information	
14.1 UN number or ID number	
ADR, IMDG, IATA	2922
14.2 UN proper shipping name:	
IMDG, IATA	CORROSIVE LIQUID, TOXIC, N.O.S. (AMMONIUM HYDROGENDIFLUORIDE, AMMONIUM FLUORIDE)
14.3 Transport hazard class(es):	
ADR, IMDG, IATA	
Class:	8 Corrosive substances.
Label:	8+6.1
14.4 Packing group:	
ADR, IMDG, IATA	II
14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user:	Warning: Corrosive substances.
Hazard identification number (Kemler code):	86
EMS Number:	F-A,S-B
14.7 Maritime transport in bulk according to IM	10
instruments	Not applicable.
Transport/Additional information:	
ADR	
Limited quantities (LQ):	LQ22
Transport category:	2
Tunnel restriction code:	Ε
UN "Model Regulation":	UN2922, CORROSIVE LIQUID, TOXIC, N.O.S., 8 (6.1), II

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available. Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation. Hazard pictograms



Signal word Danger

Hazard-determining components of labelling:
Ammonium fluoride
Ammonium bifluoride
Hazard statements
H290 May be corrosive to metals.
H301 Toxic if swallowed.
H314 Causes severe skin burns and eye damage.
H371 May cause damage to organs.
H373 May cause damage to organs through prolonged or repeated exposure.



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Precautionary statements *P301+P310* IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. *P304+P340* IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P405 Store locked up. P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

The product is for the industrial use only. We do not guarantee the safety in case the product is used for the other purposes. When using the product for health-care application or food/feed application, consult us in advance. This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS: EHS Department Contact: http://www.daikin.com/ Abbreviations and acronyms: ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Met. Corr.1: Corrosive to metals - Category 1 Acute Tox. 3: Acute toxicity - Category 3 Skin Corr. 1A: Skin corrosion/irritation - Category 1A Skin Corr. 1B: Skin corrosion/irritation - Category 1B Eye Dam. 1: Serious eye damage/eye irritation - Category 1 STOT SE 2: Specific target organ toxicity (single exposure) - Category 2 STOT RE 2: Specific target organ toxicity (repeated exposure) - Category 2