

according to the Globally Harmonized System

Regeneration solution

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product name	Regeneration solution
Synonyms	Reconditioning solution (9927)
Product code	52118033, 51350104

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture	Laboratory chemicals
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1.3. Details of the supplier of the safety data sheet

Company/Undertaking Identification	Mettler-Toledo GmbH Im Langacher 44 CH-8606 Greifensee Switzerland Tel: +41 22 567 53 22 Fax: +41 22 567 53 23 Email: ph.lab.support@mt.com
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Lieferant / Supplier:
Carl Roth GmbH + Co KG
Schoemperlenstr. 3-5
76185 Karlsruhe, Germany
+49 721 5606 0
sicherheit@carlroth.de

1.4. Emergency telephone number	(24-Hour-Number): GBK GmbH +49 6132 84463
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Issuing date	22.03.2023
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Version	GHS 3 (Previous versions: GHS 2)
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SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No. 1272/2008	Skin corrosion/irritation, Cat. 2, H315 Serious eye damage/eye irritation, Cat. 2, H319
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Additional information	For the full text of the phrases mentioned in this Section, see Section 16.
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2.2. Label elements



Signal Word

Warning

Hazard Statements

H315: Causes skin irritation.
H319: Causes serious eye irritation.

Precautionary statements

P280: Wear protective gloves, protective clothing, eye protection and face protection.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental information

None.

Product identifier

None.

Contents of package < 125 ml

Warning



2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Water based solution of inorganic salts.

Components		CLP Classification	Product identifier
Deionised water	95% - 99%	-	CAS-No.: 7732-18-5 EC-No.: 231-791-2
Ammonium bifluoride; ammonium hydrogen difluoride	0.5% - 1%	Acute Tox. 3 H301, Skin Corr. 1B H314 [Skin Corr. 1B H314: $C \geq 1\%$ Skin Irrit. 2 H315: $0,1\% \leq C < 1\%$ Eye Irrit. 2 H319: $0,1\% \leq C < 1\%$]	CAS-No.: 1341-49-7 EC-No.: 215-676-4 Index-No: 009-009-00-4

For the full text of the phrases mentioned in this Section, see Section 16.

Hazardous impurities

None known.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move to fresh air in case of accidental inhalation of vapours or decomposition products. Call a physician or poison control centre immediately.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. Consult an ophthalmologist.
Ingestion	Rinse mouth. If swallowed, seek medical advice immediately and show this container or label.

4.2. Most important symptoms and effects, both acute and delayed None known.

4.3. Indication of any immediate medical attention and special treatment needed None known.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry extinguishing agent or carbon dioxide.

Unsuitable extinguishing media None.

5.2. Special hazards arising from the substance or mixture The product is not flammable. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

5.3. Advice for firefighters

Special protective equipment for firefighters Standard procedure for chemical fires. In the event of fire, wear self-contained breathing apparatus. Wear protective suit.

Specific methods Water mist may be used to cool closed containers.



SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Ensure adequate ventilation. Use personal protective equipment. Sweep up to prevent slipping hazard. Avoid contact with skin and eyes.
For emergency responders	Evacuate personnel to safe areas. Use personal protective equipment. Sweep up to prevent slipping hazard. Do not breathe vapours/dust.

6.2. Environmental precautions Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up Soak up with inert absorbent material. Keep in suitable and closed containers for disposal (Plastic container of HDPE).

6.4. Reference to other sections See chapter 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling	Wear personal protective equipment. Practice care and caution to avoid skin contact and inhalation of vapours or mists if generated. Avoid contact with skin and eyes.
7.2. Conditions for safe storage, including any incompatibilities	Store at room temperature in the original container. Storage class 8.
7.3. Specific end use(s)	No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit(s)	No data is available on the product itself.
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8.2. Exposure controls

Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing.

Personal protection equipment

Respiratory protection In case of insufficient ventilation wear suitable respiratory equipment. Respirator with combination filter for vapour/particulate (EN 14387).



Hand protection	Hydrofluoric acid-resistant and solvent-resistant gloves (gloves made of VITON (R)). The selected protective gloves have to satisfy the specifications of Regulation (EU) No. 2016/425 and the standard EN 374 derived from it. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Break through time: > 4 h.
Eye protection	Safety glasses with side-shields conforming to EN166.
Skin and body protection	Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Thermal hazards	No special measures required.
Environmental exposure controls	Prevent product from entering surface water or sewage.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Colour	Colourless.
Odour	None.
Odour Threshold	Not determined.
pH:	~ 2
Melting point/ freezing point:	Not determined.
Boiling point or initial boiling point / range:	Not determined.
Flash point:	Not determined.
Evaporation Rate:	Not determined.
Flammability:	Not determined.
Lower and upper explosion limit:	Not determined.
Vapour pressure:	Not determined.
Relative vapour density:	Not determined.
Density and/or relative density:	1.0
Water solubility:	completely miscible
Partition coefficient n-octanol/water (log value):	Not determined.
Auto-ignition temperature:	Not determined.
Decomposition temperature:	Not determined.
Kinematic viscosity:	Not determined.
Explosive properties:	not hazardous
Oxidising properties:	None

9.2. Other information

General Product Characteristics	No information available.
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SECTION 10: Stability and reactivity

10.1. Reactivity	No information available.
10.2. Chemical stability	Stable at normal conditions.
10.3. Possibility of hazardous reactions	No information available.
10.4. Conditions to avoid	Not required.
10.5. Incompatible materials	None.
10.6. Hazardous decomposition products	None reasonably foreseeable.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity	No data is available on the product itself. Deionised water (CAS 7732-18-5) Oral LD50 Rat > 90 mL/kg (FOOD_JOURN) Ammonium bifluoride; ammonium hydrogen difluoride (CAS 1341-49-7) Oral LD50 Rat = 130 mg/kg (IUCLID)
Skin corrosion/irritation	Corrosive.
Serious eye damage/eye irritation	Corrosive.
Respiratory / Skin Sensitisation	No data available.
Carcinogenicity	No data available.
Germ cell mutagenicity	No data available.
Reproductive toxicity	No data available.
Specific target organ toxicity (single exposure)	No data available.
Specific target organ toxicity (repeated exposure)	No data available.
Aspiration hazard	No data available.
Human experience	No data available.
Information on likely routes of exposure	dermal

Symptoms related to the physical, chemical and toxicological characteristics

Inhaled corrosive substances can lead to a toxic oedema of the lungs.

SECTION 12: Ecological information

12.1. Toxicity	No data is available on the product itself. May change pH of waters.
12.2. Persistence and degradability	Expected to be biodegradable.
12.3. Bioaccumulative potential	Bioaccumulation is unlikely.
12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).
12.6. Other adverse effects	No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Dispose of as unused product.

SECTION 14: Transport information

ADR/RID	UN 2817. Proper shipping name: AMMONIUM HYDROGENDIFLUORIDE SOLUTION. Class 8. Packing group III. ADR/RID-Labels 8+6.1. Classification code CT1. Hazard identification no. 86. Limited quantity 5 L. Excepted quantity E1. Transport category 3. Tunnel restriction code (E).
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IMDG

UN 2817.
Proper shipping name: AMMONIUM HYDROGENDIFLUORIDE SOLUTION.
Class 8.
Packing group III.
IMDG-Labels 8+6.1.
Limited quantity 5 L.
Excepted quantity E1.
EmS F-A, S-B.
Marine pollutant: No.

IATA

UN 2817.
Proper shipping name: Ammonium hydrogendifluoride solution.
Class 8.
Packing group III.
IATA label 8+6.1.
Packing instruction (passenger aircraft): 852 (5 L).
Packing instruction (LQ): Y841 (1 L).
Packing instruction (cargo aircraft): 856 (60 L).

Inland navigation ADN

UN 2817.
Proper shipping name: AMMONIUM HYDROGENDIFLUORIDE SOLUTION.
Class 8.
Packing group III.
ADN labels 8+6.1.
Classification code CT1.
Limited quantity 5 L.
Excepted quantity E1.

Further Information

Due to low concentration of components, the Packing Group III is correct.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Regulatory Information**

The product is classified and labelled in accordance with EC directives or respective national laws.

Ammonium bifluoride; ammonium hydrogen difluoride (CAS 1341-49-7)	
EU - Control of Exports of Dual Use Items (2021/821)	1C350.42
EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	Use restricted. See item 75.
EU - REACH (1907/2006) - List of Registered Intermediates	Present ([215-676-4])
EU - REACH (1907/2006) - List of Registered Substances	Present

15.2. Chemical safety assessment

Not required.



SECTION 16: Other information

Revision Note	Safety datasheet sections which have been updated: 1, 9.
Key or legend to abbreviations and acronyms	None.
Key literature references and sources for data	Information taken from reference works and the literature.
Classification procedure	Calculation method.
Full text of phrases referred to under sections 2 and 3	H301: Toxic if swallowed. H314: Causes severe skin burns and eye damage. H315: Causes skin irritation. H319: Causes serious eye irritation.
Disclaimer	The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release. It is not to be considered a warranty or quality specification.

