

SAFETY DATA SHEET

according to the Global Harmonized System (and with all of the information required by the HPR)

Revision Date 08/08/2019

Version 1.6

SECTION 1. Identification**Product identifier**

Product number 103776
Product name Ammonium iron(III) sulfate dodecahydrate for analysis
EMSURE® ACS,ISO,Reag. Ph Eur
CAS-No. 7783-83-7

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

Identified uses Reagent for analysis

Details of the supplier of the safety data sheet

Company Millipore (Canada) Ltd. | 2149 Winston Park Dr. | Oakville |
Ontario L6H 6J8 | Canada | General Inquiries: +1 905 829
9500 | Monday to Friday, 9:00 AM to 4:00 PM Eastern Time
(GMT-5)
MilliporeSigma is a business of Merck KGaA, Darmstadt,
Germany.

Emergency telephone 800-424-9300 CHEMTREC (USA)
+1-703-527-3887 CHEMTREC (International)
24 Hours/day; 7 Days/week

SECTION 2. Hazards identification**GHS-Labeling**

Not a dangerous substance according to GHS.

Other hazards

None known.

SECTION 3. Composition/information on ingredients

Formula $(\text{NH}_4)\text{Fe}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}$ $\text{H}_4\text{NFeO}_8\text{S}_2 \cdot 12\text{H}_2\text{O}$
(Hill)

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Molar mass 482.19 g/mol

Remarks WHMIS hazardous composition: No ingredients are hazardous according to the HPR criteria.

SECTION 4. First aid measures

Description of first-aid measures

Inhalation

After inhalation: fresh air.

Skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

Eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

Ingestion

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

irritant effects

The following applies to soluble iron compounds: nausea and vomiting after swallowing. The absorption of large quantities is followed by cardiovascular disorders. Toxic effect on liver and kidneys.

The following applies to ammonium salts in general: after swallowing: local irritation symptoms, nausea, vomiting, diarrhea. Systemic effect: after the uptake of very large quantities: drop in blood pressure, collapse, CNS disorders, spasms, narcotic conditions, respiratory paralysis, hemolysis.

Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Not combustible.

Ambient fire may liberate hazardous vapors.

Fire may cause evolution of:

Sulfur oxides, nitrogen oxides

Advice for firefighters

Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

SECTION 7. Handling and storage

Precautions for safe handling

Observe label precautions.

Conditions for safe storage, including any incompatibilities

Protected from light.

Tightly closed. Dry.

Store below +15°C (+59°F).

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SECTION 8. Exposure controls/personal protection

Exposure limit(s)

Components

Basis	Value	Threshold limits	Remarks
<i>Ammonium iron(III) sulfate dodecahydrate 7783-83-7</i>			
CAD AB OEL	Time Weighted Average (TWA):	1 mg/m ³	Expressed as: as Fe
CAD BC OEL	Short Term Exposure Limit (STEL):	2 mg/m ³	Expressed as: as Fe
	Time Weighted Average (TWA):	1 mg/m ³	Expressed as: as Fe
CAD MB OEL	Time Weighted Average (TWA):	1 mg/m ³	Expressed as: as Fe
CAD ON OEL	Time Weighted Average (TWAEV):	1 mg/m ³	Expressed as: as Fe
OEL (QUE)	Time Weighted Average (TWA):	1.0 mg/m ³	Expressed as: as Fe
CAD SK OEL	8 hour average contamination limit:	1 mg/m ³	Expressed as: as Fe
	15 minute average contamination limit:	3 mg/m ³	Expressed as: as Fe

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures

Change contaminated clothing. Wash hands after working with substance.

Eye/face protection

Safety glasses

Hand protection

full contact:

Glove material: Nitrile rubber
Glove thickness: 0.11 mm
Break through time: 480 min

splash contact:

Glove material: Nitrile rubber
Glove thickness: 0.11 mm

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Break through time: 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet and supplied by us as well as to the purpose specified by us. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Respiratory protection

required when dusts are generated.

Recommended Filter type: Filter P 1 (acc. to DIN 3181) for solid particles of inert substances

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are performed according to the instructions of the producer.

These measures have to be properly documented.

SECTION 9. Physical and chemical properties

Physical state	solid
Color	violet
Odor	odorless
Odor Threshold	Not applicable
pH	ca. 1.8 at 100 g/l 68 °F (20 °C)
Melting point	102 - 106 °F (39 - 41 °C)
Boiling point	No information available.
Flash point	Not applicable
Evaporation rate	No information available.

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Flammability (solid, gas)	The product is not flammable.
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Vapor pressure	No information available.
Relative vapor density	No information available.
Density	No information available.
Relative density	No information available.
Water solubility	1,240 g/l at 77 °F (25 °C)
Partition coefficient: n-octanol/water	No information available.
Autoignition temperature	Not applicable
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none
Ignition temperature	Not applicable
Bulk density	ca.750 kg/m ³

SECTION 10. Stability and reactivity

Reactivity

See below

Chemical stability

Sensitivity to light

The product is chemically stable under standard ambient conditions (room temperature) .

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Possibility of hazardous reactions

Violent reactions possible with:

Strong oxidizing agents

Generates dangerous gases or fumes in contact with:

Strong acids

Conditions to avoid

no information available

Incompatible materials

no information available

Hazardous decomposition products

in the event of fire: See section 5.

SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure

Eye contact, Skin contact, Ingestion

Acute oral toxicity

Symptoms: Swallowing may result in damage to the following: , Gastrointestinal tract

Skin irritation

Possible damages: slight irritation

Eye irritation

Possible damages: slight irritation

Specific target organ systemic toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ systemic toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated

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NTP	carcinogens. No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
ACGIH	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Further information

After uptake of large quantities:

Systemic effects:

acidosis

The following applies to soluble iron compounds: nausea and vomiting after swallowing. The absorption of large quantities is followed by cardiovascular disorders. Toxic effect on liver and kidneys.

The following applies to ammonium salts in general: after swallowing: local irritation symptoms, nausea, vomiting, diarrhea. Systemic effect: after the uptake of very large quantities: drop in blood pressure, collapse, CNS disorders, spasms, narcotic conditions, respiratory paralysis, hemolysis.

However, when the product is handled appropriately, hazardous effects are unlikely to occur.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12. Ecological information

Ecotoxicity

No information available.

Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Additional ecological information

Discharge into the environment must be avoided.

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SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. Transport information

Land transport (DOT)

Not classified as dangerous in the meaning of transport regulations.

Air transport (IATA)

Not classified as dangerous in the meaning of transport regulations.

Sea transport (IMDG)

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. Regulatory information

United States of America

Canada

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

Notification status

TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL

SECTION 16. Other information

Training advice

Provide adequate information, instruction and training for operators.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

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