

## Safety Data Sheet

according to UK REACH Regulation

### Ammonium Iron (III) Sulfate with Glycerine

Revision date: 06.12.2022

Product code: 15535.xxxxx

Page 1 of 10

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

##### 1.1. Product identifier

Ammonium Iron (III) Sulfate with Glycerine

##### **Further trade names**

This MSDS covers this product in all container sizes.

UFI: 3S0D-01EC-500A-2PXA

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

##### **Use of the substance/mixture**

Use as laboratory reagent. Intended for scientific research and development.

##### **Uses advised against**

Any non-intended use.

##### 1.3. Details of the supplier of the safety data sheet

Company name:	MORPHISTO GmbH	
Street:	Schumannstr. 142/144	
Place:	D-63069 Offenbach	
Telephone:	+49 (0) 69 / 400 3019-60	Telefax: +49 (0) 69 / 400 3019-64
e-mail:	info@morphisto.de	
Contact person:	Morphisto GmbH	
e-mail:	info@morphisto.de	
Internet:	http://www.morphisto.de	

##### 1.4. Emergency telephone number:

Morphisto GmbH, Tel: +49(0)69 400 3019-60, Mo-Fr.: 09-16Uhr

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

##### **GB CLP Regulation**

This mixture is not classified as hazardous in accordance with GB CLP Regulation.

##### 2.2. Label elements

##### **GB CLP Regulation**

##### **Special labelling of certain mixtures**

EUH210 Safety data sheet available on request.

##### **Additional advice on labelling**

Labelling according to Regulation (EC) No. 1272/2008 [CLP]: none

##### 2.3. Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

No risks worthy of mention. Please observe the information on the safety data sheet at all times.

#### SECTION 3: Composition/information on ingredients

##### 3.2. Mixtures

##### **Chemical characterization**

GLYCERIN

**Safety Data Sheet**

according to UK REACH Regulation

**Ammonium Iron (III) Sulfate with Glycerine**

Revision date: 06.12.2022

Product code: 15535.xxxxx

Page 2 of 10

**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
56-81-5	Glycerol			10 - < 15 %
	200-289-5			
7783-83-7	Ammonium iron bis(sulphate)			1 - < 5 %
	233-382-4			
	Skin Irrit. 2, Eye Irrit. 2; H315 H319			

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
56-81-5	200-289-5	Glycerol	10 - < 15 %
		inhalation: LC50 = >2,57 mg/l (vapours); dermal: LD50 = >21900 mg/kg; oral: LD50 = 12600 mg/kg	

**Further Information**

Product does not contain listed SVHC substances &gt; 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

**SECTION 4: First aid measures**
**4.1. Description of first aid measures**
**General information**

Take off contaminated clothing and wash it before reuse. In all cases of doubt, or when symptoms persist, seek medical advice.

**After inhalation**

Provide fresh air. In case of respiratory tract irritation, consult a physician.

**After contact with skin**

Wash with plenty of water. Take off contaminated clothing and wash it before reuse. Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water. Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

**After ingestion**

Rinse mouth immediately and drink 1 glass of water. Rinse mouth thoroughly with water. Let water be drunk in little sips (dilution effect). In all cases of doubt, or when symptoms persist, seek medical advice.

**4.2. Most important symptoms and effects, both acute and delayed**

No information available. Dizziness Headache Gastrointestinal complaints Vomiting Diarrhoea Cyanosis (blue coloured blood)

**4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically. Treat symptomatically.

**SECTION 5: Firefighting measures**
**5.1. Extinguishing media**
**Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings. Co-ordinate fire-fighting measures to the fire

**Safety Data Sheet**

according to UK REACH Regulation

**Ammonium Iron (III) Sulfate with Glycerine**

Revision date: 06.12.2022

Product code: 15535.xxxxx

Page 3 of 10

surroundings. Carbon dioxide (CO<sub>2</sub>). Dry extinguishing powder. alcohol resistant foam. Atomized water.

**Unsuitable extinguishing media**

High power water jet.

**5.2. Special hazards arising from the substance or mixture**

Non-flammable. Pure substance: Combustible. In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO<sub>2</sub>).

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus. In case of fire: Wear self-contained breathing apparatus.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Safe handling: see section 7

Personal protection equipment: see section 8

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Do not allow to enter into surface water or drains. Discharge into the environment must be avoided.

**6.3. Methods and material for containment and cleaning up****For cleaning up**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

**Other information**

Wipe up with absorbent material (eg. cloth, fleece).

Treat the recovered material as prescribed in the section on waste disposal.

Clean contaminated objects and areas thoroughly observing environmental regulations.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13 Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Wear suitable protective clothing. (See section 8.). Wash hands and face before breaks and after work and take a shower if necessary.

**Advice on protection against fire and explosion**

Usual measures for fire prevention.

**Advice on general occupational hygiene**

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff. Take off contaminated clothing and wash it before reuse. Always close containers tightly after the removal of product.

**Further information on handling**

General protection and hygiene measures: See section 8.

## Safety Data Sheet

according to UK REACH Regulation

### Ammonium Iron (III) Sulfate with Glycerine

Revision date: 06.12.2022

Product code: 15535.xxxxx

Page 4 of 10

#### 7.2. Conditions for safe storage, including any incompatibilities

##### Requirements for storage rooms and vessels

Keep container tightly closed. Keep container tightly closed in a cool, well-ventilated place.

##### Hints on joint storage

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and animal feedingstuff.

##### Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorption of humidity.

Recommended storage temperature: 15-20°C

Protect against: frost. UV-radiation/sunlight. heat. Humidity

#### 7.3. Specific end use(s)

See section 1.

## SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
56-81-5	Glycerol, mist	-	10		TWA (8 h)	WEL

##### DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
56-81-5	Glycerol			
Worker DNEL, long-term		inhalation	local	56 mg/m <sup>3</sup>

#### 8.2. Exposure controls

##### Appropriate engineering controls

Provide adequate ventilation.

##### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Wear eye/face protection. Safety goggles with side protection. In case of increased risk add protective face shield.

##### Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Suitable material: NBR (Nitrile rubber) Thickness of glove material: >0,11mm Breakthrough time >480min. Take recovery periods for skin regeneration. Protect skin by using skin protective cream.

##### Skin protection

Use of protective clothing. Suitable protective clothing: Lab apron. Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D).

##### Respiratory protection

In case of inadequate ventilation wear respiratory protection. In case of inadequate ventilation wear respiratory

**Safety Data Sheet**

according to UK REACH Regulation

**Ammonium Iron (III) Sulfate with Glycerine**

Revision date: 06.12.2022

Product code: 15535.xxxxx

Page 5 of 10

protection. Type A. With correct and proper use, and under normal conditions, breathing protection is not required.

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

**SECTION 9: Physical and chemical properties**
**9.1. Information on basic physical and chemical properties**

Physical state:	liquid
Colour:	brownish clear
Odour:	characteristic
Odour threshold:	No information available.
Melting point/freezing point:	18-20 °C
Boiling point or initial boiling point and boiling range:	290 °C
Flammability	
Solid/liquid:	not applicable
Gas:	not applicable
Lower explosion limits:	2,6 vol. %
Upper explosion limits:	11,3 vol. %
Flash point:	191 °C
Auto-ignition temperature:	not determined
Decomposition temperature:	>290 °C
pH-Value (at 20 °C):	~ 2
Viscosity / kinematic:	not determined
Water solubility:	1.000 g/L
(at 20 °C)	
Solubility in other solvents	not determined
Partition coefficient n-octanol/water:	-1,76
Vapour pressure:	<0,1 hPa
(at 20 °C)	
Vapour pressure:	<0,1 hPa
(at 50 °C)	
Density (at 20 °C):	~1 g/cm <sup>3</sup>
Relative vapour density:	not determined

**9.2. Other information**
**Information with regard to physical hazard classes**
**Explosive properties**

The product is not: Explosive. The product is not: Explosive.

**Sustaining combustion:**

Not sustaining combustion

**Self-ignition temperature**

Solid:

not applicable

Gas:

not determined

**Oxidizing properties**

none

**Other safety characteristics**

Evaporation rate:	not determined
Solvent separation test:	not determined
Solvent content:	not determined
Solid content:	not determined
Sublimation point:	not determined
Softening point:	not determined

**Safety Data Sheet**

according to UK REACH Regulation

**Ammonium Iron (III) Sulfate with Glycerine**

Revision date: 06.12.2022

Product code: 15535.xxxxx

Page 6 of 10

Pour point:	not determined
Viscosity / dynamic: (at 20 °C)	1412 mPa·s
Flow time:	not determined

**SECTION 10: Stability and reactivity**
**10.1. Reactivity**

Vapours can form explosive mixtures with air.

**10.2. Chemical stability**

The product is chemically stable under recommended conditions of storage, use and temperature.

**10.3. Possibility of hazardous reactions**

 Explosion hazard with: Oxidising agent, strong.Hydrogen peroxide.permanates, e.g. potassium permanganate.Chlorine (Cl<sub>2</sub>).Peroxides. Nitric acid.sulphuric acid.Perchlorates. Chromium oxides.

**10.4. Conditions to avoid**

Protect against: UV-radiation/sunlight. heat.

**10.5. Incompatible materials**

No information available.

**10.6. Hazardous decomposition products**

 In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO<sub>2</sub>)..

**SECTION 11: Toxicological information**
**11.1. Information on hazard classes as defined in GB CLP Regulation**
**Toxicokinetics, metabolism and distribution**

Is not to be classified as acutely toxic.

**Acute toxicity**

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
56-81-5	Glycerol				
	oral	LD50 mg/kg	12600	Rat.	
	dermal	LD50 mg/kg	>21900	Rat.	
	inhalation (4 h) vapour	LC50 mg/l	>2,57	Rat.	ECHA

**Irritation and corrosivity**

Based on available data, the classification criteria are not met.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

**STOT-single exposure**

Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Safety Data Sheet**

according to UK REACH Regulation

**Ammonium Iron (III) Sulfate with Glycerine**

Revision date: 06.12.2022

Product code: 15535.xxxxx

Page 7 of 10

**Specific effects in experiment on an animal**

No information available.

**11.2. Information on other hazards**
**Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

**Further information**

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

**SECTION 12: Ecological information**
**12.1. Toxicity**

The product has not been tested.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
56-81-5	Glycerol					
	Acute fish toxicity	LC50 mg/l	54000	96 h	Oncorhynchus mykiss	

**12.2. Persistence and degradability**

Easily biodegradable (concerning to the criteria of the OECD)

**12.3. Bioaccumulative potential**

Does not significantly accumulate in organisms.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
56-81-5	Glycerol	-1,76

**12.4. Mobility in soil**

There is no data available.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

slightly hazardous to water

**Further information**

Avoid release to the environment. Avoid release to the environment..Do not allow to enter into surface water or drains.

**SECTION 13: Disposal considerations**
**13.1. Waste treatment methods**
**Disposal recommendations**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation. Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation. Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal.

Non-contaminated packages may be recycled.

According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

**Safety Data Sheet**

according to UK REACH Regulation

**Ammonium Iron (III) Sulfate with Glycerine**

Revision date: 06.12.2022

Product code: 15535.xxxxx

Page 8 of 10

Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

**List of Wastes Code - residues/unused products**

160509 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

**List of Wastes Code - used product**

160509 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

**List of Wastes Code - contaminated packaging**

150203 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; absorbents, filter materials, wiping cloths and protective clothing; absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02

**Contaminated packaging**

Wash with plenty of water. Completely emptied packages can be recycled. Wash with plenty of water. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

**SECTION 14: Transport information****Land transport (ADR/RID)**

**14.1. UN number or ID number:** Not restricted  
**14.2. UN proper shipping name:** Not restricted  
**14.3. Transport hazard class(es):** Not restricted  
**14.4. Packing group:** Not restricted

**Inland waterways transport (ADN)**

**14.1. UN number or ID number:** Not restricted  
**14.2. UN proper shipping name:** Not restricted  
**14.3. Transport hazard class(es):** Not restricted  
**14.4. Packing group:** Not restricted

**Marine transport (IMDG)**

**14.1. UN number or ID number:** Not restricted  
**14.2. UN proper shipping name:** Not restricted  
**14.3. Transport hazard class(es):** Not restricted  
**14.4. Packing group:** Not restricted

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number or ID number:** Not restricted  
**14.2. UN proper shipping name:** Not restricted  
**14.3. Transport hazard class(es):** Not restricted  
**14.4. Packing group:** Not restricted

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

Refer to section 6-8

**14.7. Maritime transport in bulk according to IMO instruments**

not relevant

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



**Safety Data Sheet**

according to UK REACH Regulation

**Ammonium Iron (III) Sulfate with Glycerine**

Revision date: 06.12.2022

Product code: 15535.xxxxx

Page 9 of 10

**EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 65

2010/75/EU (VOC): No information available.

2004/42/EC (VOC): No information available.

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

**Additional information**The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].  
REACH 1907/2006 Appendix XVII: not relevant**National regulatory information**

Water hazard class (D): 1 - slightly hazardous to water

**Additional information**

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****Changes**

Rev. 2,0; 06.12.22, Individual safety data sheet based on 13599\_collect

**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route

CAS Chemical Abstracts Service

DNEL: Derived No Effect Level

IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

LOAEL: Lowest observed adverse effect level

LOAEC: Lowest observed adverse effect concentration

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NOAEL: No observed adverse effect level

NOAEC: No observed adverse effect level

NTP: National Toxicology Program

N/A: not applicable

OSHA: Occupational Safety and Health Administration

PNEC: predicted no effect concentration

PBT: Persistent bioaccumulative toxic

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail )

SARA: Superfund Amendments and Reauthorization Act

SVHC: substance of very high concern

TRGS Technische Regeln fuerGefahrstoffe

TSCA: Toxic Substances Control Act

VOC: Volatile Organic Compounds

**Safety Data Sheet**

according to UK REACH Regulation

**Ammonium Iron (III) Sulfate with Glycerine**

Revision date: 06.12.2022

Product code: 15535.xxxxx

Page 10 of 10

VwVwS: Verwaltungsvorschrift wassergefährdender Stoffe  
WGK: Wassergefährdungsklasse  
CLP: Classification, labelling and Packaging  
REACH: Registration, Evaluation and Authorization of Chemicals  
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals  
UN: United Nations  
CAS: Chemical Abstracts Service  
DNEL: Derived No Effect Level  
DMEL: Derived Minimal Effect Level  
PNEC: Predicted No Effect Concentration  
ATE: Acute toxicity estimate  
LL50: Lethal loading, 50%  
EL50: Effect loading, 50%  
EC50: Effective Concentration 50%  
ErC50: Effective Concentration 50%, growth rate  
NOEC: No Observed Effect Concentration  
BCF: Bio-concentration factor  
PBT: persistent, bioaccumulative, toxic  
vPvB: very persistent, very bioaccumulative  
ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Regulations concerning the international carriage of dangerous goods by rail  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)  
EmS: Emergency Schedules  
MFAG: Medical First Aid Guide  
MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
IBC: Intermediate Bulk Container  
For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>  
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

**Relevant H and EUH statements (number and full text)**

H315	Causes skin irritation.
H319	Causes serious eye irritation.
EUH210	Safety data sheet available on request.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*