

SAFETY DATA SHEET (SDS)

in accordance with Regulation (EC) No 1907/2006 (REACH), Annex II — Regulation (EU) 2020/878

Date: 23.08.2026 | Version: 1 | EN

siarczan amonu

CAS 7783-20-2

H₈N₂O₄S

EC 231-984-1

MOLAR MASS

132.14

HAZARD CLASSIFICATION (GHS / CLP)



Warning

H402

H412

Non-harmonised classification (no entry in Annex VI to CLP) — assigned from aggregated ECHA C&L notifications; the H-statements require verification against the official source (ECHA C&L / manufacturer's data sheet).

1. Identification of the substance/mixture and of the company/undertaking

1.1 Substance name	siarczan amonu
1.1 IUPAC name	diazanium;sulfate
1.1 CAS number	7783-20-2
1.1 EC number	231-984-1
1.1 PubChem CID	6097028
1.1 InChIKey	BFNBHQBVMNNAN-UHFFFAOYSA-N
1.1 SMILES	[NH4+].[NH4+].[O-]S(=O)(=O)[O-]
1.1 Molecular formula	H ₈ N ₂ O ₄ S ^[7]
1.1 Molar mass	132.14 g/mol ^[7]
1.1 Exact mass	132.0205 Da ^[7]

1.2 Uses

For laboratory and research purposes. Not for use in the production of food, medicines or cosmetics without appropriate authorisation.

1.3 Details of the supplier

Supplier details have not been configured (MOL-GOD → Label generator → Producer details).

1.4 Emergency telephone number

Emergency telephone +48 42 631 47 24

Toxicological Information Centre (CIT), Łódź — available 24/7

2. Hazards identification

GHS:



PPE:



Warning

Hazard statements (H) ^{[3][4]}

H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects

Precautionary statements (P) ^{[3][4]}

P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P273	Avoid release to the environment
P391	Collect spillage
P501	Dispose of contents/container to an approved waste collection point

Non-harmonised classification (no entry in Annex VI to CLP) — assigned from aggregated ECHA C&L notifications; the H-statements require verification against the official source (ECHA C&L / manufacturer's data sheet).

3. Composition/information on ingredients

Substance type	pure substance
CAS Number	7783-20-2
EC number	231-984-1
Molecular formula	$\text{H}_8\text{N}_2\text{O}_4\text{S}$
Concentration	≥99% (typical reagent-grade purity — to be confirmed by the supplier's specification)

4. First aid measures



Inhalation

Move the affected person to fresh air. Keep at rest. If not breathing: artificial respiration (qualified personnel only). [\[1\]](#)[\[2\]](#)[\[10\]](#)

Skin contact

Remove contaminated clothing. Rinse skin with soap and water (min. 15 minutes). [\[1\]](#)[\[2\]](#)[\[10\]](#)

Eye contact

Rinse eyes with running water (min. 15 minutes). Remove contact lenses if possible. If irritation persists — consult an ophthalmologist. [\[1\]](#)[\[2\]](#)[\[10\]](#)

Ingestion

Do NOT induce vomiting (unless directed by a physician). Rinse mouth with water. Never give anything by mouth to an unconscious person. Poison Centre Łódź: +48 42 631 47 24 (24/7). Emergency number: 112. [\[1\]](#)[\[2\]](#)[\[10\]](#)

Symptoms and effects

No specific symptoms described in the literature. [\[3\]](#)

Notes for physician

Requires verification

Emergency numbers: CIT Łódź: +48 42 631 47 24 (24/7) | Emergency: 112

5. Firefighting measures

Suitable extinguishing media	Adapt extinguishing media to surroundings. CO ₂ , dry powder, foam.
Unsuitable extinguishing media	No specific restrictions.
Specific hazards	Thermal decomposition products:NOx, SOx. [11]
Advice for firefighters	Use self-contained breathing apparatus (SCBA). Full protective suit.

6. Accidental release measures

Personal precautions	Use personal protective equipment (see Section 8). Avoid breathing dust. [1] [2] [10]
Environmental precautions	Prevent entry into sewers, groundwater and surface water. [1] [2] [10]
Methods for containment and cleaning up	Collect mechanically into suitable containers. Absorption: sand, vermiculite, diatomaceous earth. Do not sweep dry (dust formation). [1] [2] [10]
Related sections	8; 13

7. Handling and storage

Precautions	Work in a fume hood or with adequate ventilation. No eating, drinking or smoking in the work area. [1] [2] [10]
Storage temperature	Store at room temperature (15-25°C) or as indicated on the label. [1] [2] [10]
Humidity	Store in a dry place (<60% RH). [1] [2] [10]

Light	Protect from direct sunlight. ^{[1][2][10]}
Incompatible materials	Strong oxidizers, strong acids, strong bases. ^[11]

8. Exposure controls/personal protection

8.1 Control parameters

OEL — NDS (Poland)	No NDS (OEL) value in the available working list — verify in the current MRPiPS regulation before use; do not assume the absence of a limit value.
OEL (EU)	The EU OEL value has not been verified against the available dataset — check the IOELV/BOELV directives; do not assume the absence of a value.
DNEL	No data available.
PNEC	No data available.

8.2 Personal protective equipment (PPE) ^{[5][6][12]}

 Chemical-resistant protective gloves EN ISO 374-1:2016+A1:2018 nitrile (min. 0.11 mm)	 Closed safety spectacles or goggles EN ISO 16321-1:2022 / EN 166:2001	 Closed safety footwear with toe protection EN ISO 20345:2022 (S2/S3)
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9. Physical and chemical properties

Property (item 9.1)	Value	Source
Physical state	Solid	
Colour	No data available.	
Odour	No data available.	
pH (1% aqueous solution)	No data available.	
Melting point	280°C (experimental data) ^[7]	
Boiling point	No data available.	
Flash point	Not applicable (REACH 9.1(h))	
Flammability	No data available.	
Lower and upper explosion limit	Not applicable (REACH 9.1(g))	
Density (20°C)	1.7752 g/cm ³ ^[7]	
Vapour pressure	1.871 kPa, 20°C (experimental data) ^[7]	
Relative vapour density	Not applicable (REACH 9.1(q))	
Kinematic viscosity	Not applicable (REACH 9.1(l))	
Refractive index n_D²⁰	1.521 (experimental data) ^[7]	
Auto-ignition temperature	No data available.	
Decomposition temperature	No data available.	
Rozpuszcz. w wodzie	764 g/L, 25°C ^[7]	

Property (item 9.1)	Value	Source
Particle characteristics	The particle size distribution has not been determined for this commercial form – required under Annex II 9.1(r); to be completed from the supplier's specification.	
log Kow (XLogP3)	No data available.	
Molar mass	132.14 g/mol ^[7]	
Molecular formula	H ₈ N ₂ O ₄ S ^[7]	

10. Stability and reactivity

Reactivity	Stable under normal storage and handling conditions.
Chemical stability	Thermally stable under recommended conditions.
Hazardous reactions	No hazardous reactions known under normal conditions.
Conditions to avoid	High temperatures, direct sunlight, moisture.
Incompatible materials	Strong oxidizers, strong acids, strong bases.
Decomposition products	Thermal decomposition products:NOx, SOx.

11. Toxicological information

LD50 (oral)	LD50 3000 mg/kg; 4250 mg/kg (rat, oral) ^[7]
LD50 (dermal)	LD50 >2000 mg/kg (rat) ^[7]
LC50 (inhalation)	No data available.
Skin irritation	No data available.
Eye irritation	No data available.
Sensitisation	No data available.
Mutagenicity	No data available.
Carcinogenicity	No data available.
IARC classification (carcinogenicity)	No individual IARC monograph for this CAS — this is not confirmation of the absence of carcinogenicity (cf. CLP/GHS classification in section 2).
Reproductive toxicity	No data available.
STOT — single exposure	No data available.
STOT — repeated exposure	No data available.
Aspiration hazard	No data available.

12. Ecological information

Aquatic toxicity	Classification per ECHA C&L notifications (self-classification, Art. 4(3)): H412 — Harmful to aquatic life with long lasting effects (Aquatic Chronic 3). LC ₅₀ (fish): 36.7 mg/L (<i>Oncorhynchus mykiss</i> , 96 h). EC ₅₀ (<i>Daphnia</i>): 59 mg/L (<i>Ceriodaphnia dubia</i> , 48 h) ^[13]
Persistence / biodegradability	No data available.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
PBT/vPvB assessment	Insufficient data to assess PBT/vPvB.
Endocrine disrupting properties	Zgłoszone efekty endokrynne u organizmów wodnych (dane ekotoksykologiczne, US EPA ECOTOX; nie stanowią regulacyjnej klasyfikacji ED wg 2018/605). [PL] ^[13]

13. Disposal considerations

Disposal method	Hand over for disposal to licensed contractors in accordance with national and local regulations. Do not discharge into sewers.
Waste code (EWC)	16 05 06* — Laboratory and analytical chemicals (np. chemical reagents) zawierające substancje niebezpieczne. EWC code verification required. ^[9]
Packaging	Cleaned packaging may be recycled. Contaminated packaging must be treated as hazardous waste.

14. Transport information

UN number	VERIFICATION REQUIRED — no verified UN assignment.
Environmental hazard	Environmental hazard for transport: not verified. Non-harmonised classification (outside CLP Annex VI) — verify aquatic toxicity (Section 12) and do NOT assume marine pollutant marking is not required; confirm per ADR 2.2.9 / IMDG before shipping.
Special precautions	Handle as dangerous goods according to the assigned class (ADR/IMDG/IATA); apply the precautions appropriate to that class.
CN/HS code	CN/HS code: verification required in the Eurostat Combined Nomenclature.
Notes	Transport classification not verified. Do not assume the absence of restrictions — check ADR/IMDG/IATA before shipping.

15. Regulatory information

SVHC status	SVHC status not verified against the available dataset — check the current ECHA Candidate List; do not assume absence. ^[1]
REACH Annex XIV	Not verified against the ECHA Authorisation List — check REACH Annex XIV. ^[1]
REACH Annex XVII	Not confirmed in the available Annex XVII dataset — verify against the current ECHA list before placing on the market; do not assume absence of restriction. ^[1]

16. Other information

Legal status of classification: supplier self-classification under Art. 4(3) CLP — no harmonised entry in Annex VI. Entries with an entry-into-force date after 23.08.2026 were omitted as future (not yet applicable).

Data aggregated automatically from public reference databases (PubChem, ECHA, NIST and others).

Scientific citations (10)

Growth, physiology, and metabolism of *Halomonas meridiana* in aqueous ammonium sulfate with implications for icy moon astrobiology. (2025). DOI: 10.3389/fmicb.2025.1642998

et al.. Morphophysiological and Histopathological Effects of Ammonium Sulfate Fertilizer on <i>Aporrectodea trapezoides</i> (Dugès, 1828) Earthworm.. (2024). DOI: 10.3390/life14091209

How to Handle Hard-to-Purify Polymers: Ammonium Sulfate Precipitation of rPEG as a Prototype for Amorphous and Flexible Polymers.. (2026). DOI: 10.1021/acsmacrolett.6c00187

et al.. Ammonium sulfate (AS)-methanesulfonic acid (MSA) deep eutectic solvents: a tuneable superacidic platform for lithium extraction and mineral processing.. (2026). DOI: 10.1016/j.saa.2026.128170

et al.. Solubilities in Aqueous Solutions of Ammonium Sulfate and Potassium Salts of Malonic, Succinic, or Glutaric Acid.. (2025). DOI: 10.1021/acs.jpca.5c05396

Full text of H statements

H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects

Full text of P statements

P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P273	Avoid release to the environment
P391	Collect spillage
P501	Dispose of contents/container to an approved waste collection point

Abbreviations

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging (Reg. (EC) 1272/2008)
CMR	Carcinogenic, Mutagenic, toxic to Reproduction
DNEL	Derived No-Effect Level
EC	European Community number
EPI	Personal protective equipment
GHS	Globally Harmonized System
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods Code
SDS	Safety Data Sheet
LC50	Lethal Concentration, 50%
LD50	Lethal Dose, 50%
NDS	Maximum admissible concentration (workplace, PL)
NDSch	Short-term exposure limit (PL)
OEL	Occupational Exposure Limit
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (Reg. (EC) 1907/2006)
STOT	Specific Target Organ Toxicity
SVHC	Substance of Very High Concern
TPSA	Topological Polar Surface Area
vPvB	very Persistent and very Bioaccumulative

Version history

v1 (23.08.2026)	Based on supplier self-classification (ECHA C&L notifications; no harmonised entry in Annex VI).
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References

[1] EP and Council. Reg.(EC) No 1907/2006 (REACH). Art.31, Annex II. OJ EU L 396/2006. URL: <https://eur-lex.europa.eu/eli/reg/2006/1907/oj> Accessed: 2026-08-23.

- [2] European Commission. Reg.(EU) 2020/878 — amending Annex II REACH. OJ EU L 203/2020. From 01.01.2023. URL: <https://eur-lex.europa.eu/eli/reg/2020/878/oj> Accessed: 2026-08-23.
- [3] EP and Council. Reg.(EC) 1272/2008 (CLP) + ATP 23. OJ EU L 353/2008. (2026-07-07) URL: <https://eur-lex.europa.eu/eli/reg/2008/1272/oj> Accessed: 2026-08-23.
- [4] United Nations. GHS Rev.9. ST/SG/AC.10/30/Rev.9. New York and Geneva: United Nations, 2021. URL: <https://unece.org/transport/dangerous-goods/ghs-rev9-2021> Accessed: 2026-08-23.
- [5] ISO. ISO 7010:2019 — Graphical symbols. Safety signs. URL: <https://www.iso.org/standard/72424.html> Accessed: 2026-08-23.
- [6] ISO. ISO 3864-1:2011 — Safety colours and safety signs. URL: <https://www.iso.org/standard/51021.html> Accessed: 2026-08-23.
- [7] PubChem. National Center for Biotechnology Information (NIH/NLM), chemical compound database. URL: <https://pubchem.ncbi.nlm.nih.gov/compound/6097028>
- [8] ECHA. REACH Registration Dossier (registered substance, acute toxicity study record). Helsinki: European Chemicals Agency. URL: <https://echa.europa.eu/registration-dossier>
- [9] European Commission. Decision 2000/532/EC establishing a list of wastes (European Waste Catalogue). OJ EU L 226/3. URL: <https://eur-lex.europa.eu/eli/dec/2000/532/oj>
- [10] European Chemicals Agency (ECHA). Guidance on the Compilation of Safety Data Sheets. Version 4.0. Helsinki: European Chemicals Agency, 2020. URL: https://echa.europa.eu/documents/10162/2324906/sds_en.pdf
- [11] Urban, P.G., ed. Bretherick's Handbook of Reactive Chemical Hazards. 8th ed. Oxford: Academic Press.
- [12] CEN. Personal protective equipment standards (EN ISO 374-1, EN 166, EN 149, EN 14387, EN ISO 20345). Brussels: European Committee for Standardization.
- [13] U.S. EPA. ECOTOX Knowledgebase. Washington, DC: U.S. Environmental Protection Agency. URL: <https://cfpub.epa.gov/ecotox/>
- [14] MRIPS Regulation of 12.06.2018 — NDS/NDN. Journal of Laws 2024 item 1017. URL: <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20240001017> Accessed: 2026-08-23.

External links

NIST: <https://webbook.nist.gov/cgi/cbook.cgi?ID=7783-20-2>

Wikidata: <https://www.wikidata.org/wiki/Q191831>

ChEMBL: https://www.ebi.ac.uk/chembl/compound_report_card/CHEMBL2107724

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Generator: Document generated automatically from supplier self-classification (ECHA C&L notifications) and public physicochemical databases.

Author: www.MolGod.org — platform for automated safety data sheets (SDS).

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