

Safety Data Sheet

#47565622 · Full 16-section SDS

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

PRODUCT	CAS NUMBER	FORMULA	VERSION	REVISION DATE
D-Asparagine anhydrous	2058-58-4	H ₂ NCOCH ₂ CH(NH ₂)CO ₂ H	10	19 Oct 2026

SECTION 1

Identification

1.1 Product identifier

Product name D-Asparagine anhydrous

CAS number 2058-58-4

EC / EINECS number 218-163-3

Chemical formula H₂NCOCH₂CH(NH₂)CO₂H

Molecular weight 132.12

SMILES C([C@H](C(=O)O)N)C(=O)N

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

For research and development. Laboratory chemicals. Manufacture of substances. Not suitable for human or veterinary purposes.

1.3 Details of the supplier of the safety data sheet

Molekula Limited
1 Millennium Way, Newton Aycliffe
Durham, DL5 6JW, United Kingdom
info@molekula.com · +44 (0) 3302 000333

1.4 Emergency telephone number

0344 892 0111 — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

Hazard identification

2.1 Classification of the substance or mixture

Not classified

2.2 Label elements

NONE

2.3 Other hazards

Does not meet the PBT or vPvB criteria of REACH Annex XIII.

SECTION 3

Composition / information on ingredients

3.1 Substances

Name	D-Asparagine anhydrous
CAS number	2058-58-4
EC number	218-163-3
Concentration / purity	~100%
Classification according to Regulation (EC) No 1272/2008	Not classified
Hazard statements	None
Acute toxicity estimate (ATE)	No data available
Impurities / stabilising additives	Not applicable

SECTION 4

First-aid measures

4.1 Description of first aid measures

Inhalation	If breathing is difficult, remove to fresh air and keep at rest; give oxygen or artificial respiration if necessary; get medical advice if difficulties persist.
Skin contact	Remove contaminated clothing immediately and wash with plenty of water; consult a doctor if irritation persists.
Eye contact	Rinse immediately with plenty of water, remove contact lenses if easy, continue rinsing; get medical advice if irritation persists.
Ingestion	Rinse mouth with water; do not induce vomiting; get medical advice/attention.

Get medical attention if any discomfort continues. Show this Safety Data Sheet (SDS) to medical personnel. First aiders/ medical personnel need to protect themselves.

4.2 Most important symptoms and effects, both acute and delayed

Treat symptomatically.

4.3 Indication of any immediate medical attention and special treatment needed

Not applicable

SECTION 5

Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Foam, dry powder, carbon dioxide, water spray, sand.

Unsuitable extinguishing media Do not use a heavy water stream.

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products in fire: carbon oxides (CO, CO₂) and nitrogen oxides.

5.3 Advice for firefighters

Do not enter fire area without proper protective equipment including respiratory protection; cool exposed containers with water spray; prevent firefighting water entering the environment.

SECTION 6

Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation and contact with skin, eyes and clothing; eliminate ignition sources; evacuate unnecessary personnel; emergency responders use SCBA and chemically protective clothing.

6.2 Environmental precautions

Prevent entry to sewers and public waters; notify authorities if product enters them.

6.3 Methods and material for containment and cleaning up

Sweep or shovel up and place in a suitable closed container for disposal.

6.4 Reference to other sections

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

7.1 Precautions for safe handling

Avoid creating or spreading dust; provide local exhaust or general ventilation; do not eat, drink or smoke when using; wash hands after handling. Hygroscopic, handle and store under inert gas.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature Ambient

Conditions for safe storage (incompatibilities) Keep in original closed container in a cool, dry, well-ventilated place away from heat, direct sunlight and moisture (hygroscopic); incompatible with strong oxidisers.

7.3 Specific end use(s)

See Section 1.2.

SECTION 8

Exposure controls / personal protection**8.1 Control parameters**

Occupational exposure limits (OEL / WEL) *Not applicable*

DNEC/PNEC data *Not applicable*

8.2 Exposure controls

Eye / face protection Safety glasses
Wear eye/face protection as recommended. All eye/face protection should comply with EN ISO 16321-1:2022.

Skin / hand protection Gloves: Nitrile Rubber, 0.11mm (480 mins).

Respiratory protection Half-mask with filter
Keep self-contained breathing apparatus readily available for emergency use. Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory equipment: Reusable Air-Purifying Respirator (APR). Filter type: ABEK. Standard: EN 14387.

Other protection Emergency eye wash fountains and safety showers should be available; do not eat, drink or smoke during use.

Environmental exposure controls Do not let product enter drains.

SECTION 9

Physical & chemical properties**9.1 Information on basic physical and chemical properties**

Appearance / physical state Crystalline solid
DERIVED FROM: LITERATURE

Colour White to off-white
DERIVED FROM: LITERATURE

Odour Not known
DERIVED FROM: LITERATURE

Melting / freezing point 280 °C
DERIVED FROM: LITERATURE

Boiling point *No data available*

Flammability Non flammable
DERIVED FROM: LITERATURE

Lower and upper explosion limit *No data available*

Flash point *Not applicable*

Auto-ignition temperature *No data available*

Decomposition temperature *No data available*

pH *No data available*

Acidity	Neutral DERIVED FROM: LITERATURE
Kinematic viscosity	No data available
Solubility	No data available
Partition coefficient n-octanol/water (log value)	No data available
Vapour pressure	No data available
Density (g/mL)	Not applicable
Relative vapour density	No data available
Particle characteristics	No data available

9.2 Other information

No data available

SECTION 10

Stability & reactivity

10.1 Reactivity

Non-reactive under normal conditions of use, storage and transport.

10.2 Chemical stability

Stable under recommended handling and storage conditions.

10.3 Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4 Conditions to avoid

Sunlight, heat, hot surfaces, sparks, open flames and other ignition sources, moisture and humidity.

10.5 Incompatible materials

Strong oxidizers.

10.6 Hazardous decomposition products

Thermal decomposition generates carbon oxides (CO, CO₂) and nitrogen oxides.

SECTION 11

Toxicological information

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

Acute toxicity (LD50 / LC50)	LD50 Oral - Rat - male and female - > 16,000 mg/kg
Skin corrosion / irritation	Not applicable
Eye corrosion / irritation	Not applicable
Respiratory / skin sensitisation	Not applicable

Carcinogenicity	<i>Not applicable</i>
Mutagenicity	<i>Not applicable</i>
Reproductive toxicity	<i>Not applicable</i>
STOT (single / repeated exposure)	<i>Not applicable</i>
Aspiration hazard	<i>Not applicable</i>

11.2 Information on other hazards

This product does not contain any known or suspected endocrine disruptors.

SECTION 12

Ecological information

12.1 Toxicity

Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata - > 100 mg/l - 72h
static test NOEC - Pseudokirchneriella subcapitata - 100 mg/l - 72 h

12.2 Persistence and degradability

Not applicable

12.3 Bioaccumulative potential

Not applicable

12.4 Mobility in soil

Not applicable

12.5 Results of PBT and vPvB assessment

Not applicable

12.6 Endocrine disrupting properties

See Section 11.2.

12.7 Other adverse effects

No data available

SECTION 13

Disposal considerations

13.1 Waste treatment methods

Dispose of in accordance with local/national regulations

SECTION 14

Transport information

14.1 UN number or ID number

Not applicable

14.2 UN proper shipping name

Not applicable

14.3 Transport hazard class(es)

Not applicable

14.4 Packing group

Not applicable

14.5 Environmental hazards

Not applicable

14.6 Special precautions for user

Special precautions for user Not applicable

Transport category Not applicable

Tunnel code Not applicable

Packing instruction (ADR) Not applicable

Packing instruction (IMDG) Not applicable

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15

Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Substance-specific regulations (e.g. licences) No REACH Annex XVII restrictions; not on the REACH Candidate List; not subject to the German 12th BImSchV; not listed on Dutch SZW carcinogenic, mutagenic or reproductive toxicant lists.

REACH code Y110

ECHA notification Not applicable

15.2 Chemical safety assessment

Not required

SECTION 16

Other information

Revision notes / other information This SDS replaces v1 issued: 18.04.2019

This Safety Data Sheet was generated automatically from the data Molekula holds against this product, in the 16-section GHS/CLP format. Fields shown as "No data available" carry no recorded value; fields shown as "Not applicable" were assessed as not relevant to this substance. For queries, contact Molekula at info@molekula.com.