

Safety Data Sheet

#16609610 · 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
Cobamamide (pyrogen Free)	13870-90-1	C72H100CoN18O17P	10	03 Aug 2026

SECTION 1

Identification

Product name	Cobamamide (pyrogen Free)
CAS number	13870-90-1
Chemical formula	C72H100CoN18O17P
Molecular weight	1579.58
SMILES	<chem>CC1=CC2=C(C=C1C)N(C=N2)[C@@H]3[C@@H]([C@@H]([C@H](O3)CO)OP(=O)([O-])O[C@H](C)CNC(=O)CC[C@@]4([C@H]([C@@H]5[C@]6([C@@]([C@@H](C(=N6)/C(=C\7/[C@@]([C@@H](C(=N7)/C(=C\8/C([C@@H](C(=N8)/C(=C4\N-5)/C)CCC(=O)N(C)C)CCC(=O)N(C)CC(=O)N)/C)CCC(=O)N(C)CC(=O)N(C)CC(=O)N(C)O.[CH2-][C@@H]1[C@@H]([C@@H]([C@H](O1)N2C=NC3=C(N=CN=C32)N)O)O.[Co+3]</chem>
EC / EINECS number	237-627-6
Recommended use & restrictions	For research use only. Not for human or animal use.
Emergency telephone	0344 892 0111 — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

Hazard identification

NONE

CODE	PRECAUTIONARY STATEMENT
P280	Wear protective gloves/protective clothing/eye protection/face protection
Other hazards (e.g. PBT / vPvB, not classified)	Does not contain components considered to be persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB). Does not contain components considered to have endocrine-disrupting properties. Does not meet PBT or vPvB criteria under REACH Annex XIII.

SECTION 3

Composition / information on ingredients

Purity / concentration	100% Cobamamide (pyrogen Free) (CAS: 13870-90-1)
Impurities / stabilising additives	None

SECTION 4

First-aid measures

Inhalation	Move to fresh air. Get medical attention if any discomfort continues.
Skin contact	Wash with plenty of soap and water. Get medical advice/attention if you feel unwell.
Eye contact	Remove contact lenses if present. Rinse eyes with water. If eye irritation persists: get medical advice/attention.
Ingestion	Rinse mouth. Get medical advice/attention if you feel unwell.
Symptoms / effects & medical attention	See Section 11.

SECTION 5

Fire-fighting measures

Suitable extinguishing media	Alcohol-resistant foam, carbon dioxide, dry powder or water fog. Water spray
Unsuitable extinguishing media	None known
Special hazards	Carbon oxides Nitrogen oxides (NOx) Oxides of phosphorus Cobalt/cobalt oxides Combustible. Development of hazardous combustion gases or vapours possible in the event of fire.
Advice for firefighters	In the event of fire, wear self-contained breathing apparatus. 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 & PPE	Avoid breathing dust/fume/gas/mist/vapours/spray. Provide adequate ventilation. For personal protection, see section 8.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.
Containment & clean-up methods	Collect spillage with shovel, broom or the like.

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

Storage temperature	-15 to -20 °C
Precautions for safe handling	Wear protective clothing, gloves, eye and face protection. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.
Conditions for safe storage (incompatibilities)	Store in a dry place. Store in a closed container

SECTION 8

Exposure controls / personal protection

Occupational exposure limits (OEL / WEL)	EH40/2005 Work Exposure Limits, Fourth edition. Published 2020. STEL: 0.3 mg/m ³ 15 min TWA: 0.1 mg/m ³ 8 hr
DNEC/PNEC data	<i>Not applicable</i>
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	Nitrile gloves Thickness: 0.11mm. Breakthrough time: 480mins.
Respiratory protection	Not required 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.

SECTION 9

Physical & chemical properties

Density (g/mL)	1 g/mL DERIVED FROM: LITERATURE
Flash point	Not applicable
Acidity	Neutral DERIVED FROM: LITERATURE
Appearance / physical state	Solid DERIVED FROM: LITERATURE
Colour	Dark red-brown DERIVED FROM: LITERATURE
Odour	Odourless DERIVED FROM: LITERATURE
Melting / freezing point	Not applicable
Boiling point	Not applicable
Solubility (water)	Not applicable
pH	Not applicable
Vapour pressure	Not applicable
Partition coefficient (log Pow)	Not applicable
Auto-ignition / decomposition temp	Not applicable

SECTION 10

Stability & reactivity

Chemical stability / reactivity	Stable under normal conditions
Conditions to avoid	Keep away from heat/sparks/open flames. No smoking.
Incompatible materials	No data available
Hazardous decomposition products	See section 5

SECTION 11**Toxicological information**

Acute toxicity (LD50 / LC50)	Not classified
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Skin corrosion / irritation	Not classified
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Eye corrosion / irritation	Not classified
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Respiratory / skin sensitisation	Not classified
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Carcinogenicity	Not classified
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Mutagenicity	<i>Not applicable</i>
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Reproductive toxicity	<i>Not applicable</i>
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STOT (single / repeated exposure)	Not classified
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Aspiration hazard	Not classified
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Endocrine disruptors	Not classified
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SECTION 12**Ecological information**

Aquatic toxicity	<i>Not applicable</i>
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Persistence & degradability	<i>Not applicable</i>
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Bioaccumulative potential	<i>Not applicable</i>
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Mobility in soil	<i>Not applicable</i>
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PBT / vPvB assessment	<i>Not applicable</i>
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SECTION 13**Disposal considerations**

Waste treatment / disposal methods	Dispose of in accordance with local/national regulations
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SECTION 14

Transport information

UN number	Not applicable
Proper shipping name	Not applicable
Class	Not applicable
Packing group	Not applicable
Transport category	Not applicable
Tunnel code	Not applicable
Packing instruction (ADR)	Not applicable
Packing instruction (IMDG)	Not applicable
Environmental hazards	Not applicable
Special precautions for user	Handle in accordance with good industrial hygiene and safety practice

SECTION 15

Regulatory information

REACH code	Y110
UFI code	Not applicable
ECHA notification	Not applicable
Chemical safety assessment carried out?	Not applicable

SECTION 16

Other information

Revision notes / other information	Eye/Face protection standards: EN ISO 16321:-2022
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