

Safety Data Sheet

#30365209 · 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
1,3-Dimethyl-2-imidazolidinone	80-73-9	C5H10N2O	10	11 Aug 2026

SECTION 1

Identification

Product name	1,3-Dimethyl-2-imidazolidinone
CAS number	80-73-9
Chemical formula	C5H10N2O
Molecular weight	114.15
SMILES	<chem>O=C1N(C)CCN1C</chem>
EC / EINECS number	201-304-8
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

**DANGER**

CODE	HAZARD STATEMENT
H302	Harmful if swallowed
H318	Causes serious eye damage
H360F	May damage fertility
H373	May cause damage to organs through prolonged or repeated exposure

CODE	PRECAUTIONARY STATEMENT
P260	Do not breathe dust/fume/gas/mist/vapours/spray
P263	Avoid contact during pregnancy/while nursing
P280	Wear protective gloves/protective clothing/eye protection/face protection
P284	Wear respiratory protection
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do, continue rinsing

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	c. 100%1,3-Dimethyl-2-imidazolidinone (CAS: 80-73-9): H302, H318, H360F, H373
Impurities / stabilising additives	None

SECTION 4

First-aid measures

Inhalation	Remove person to fresh air and keep comfortable for breathing. In case of persistent throat irritation or coughing: seek medical attention.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Contact a physician if discomfort continues.
Eye contact	Remove contact lenses if present. Rinse eyes with water. Continue to rinse for at least 15 minutes and seek medical attention.
Ingestion	After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.
Symptoms / effects & medical attention	See Section 11

SECTION 5

Fire-fighting measures

Suitable extinguishing media	Foam, carbon dioxide, dry powder or water fog. Water spray
Unsuitable extinguishing media	None known
Special hazards	Carbon oxides Nitrogen oxides (NOx) Combustible. Vapours are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.
Advice for firefighters	Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. Suppress (knock down) gases/vapours/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	Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.
Containment & clean-up methods	Absorb spillage with a suitable absorbent material.

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

Storage temperature	Ambient
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)	Hygroscopic. Store under inert gas.

SECTION 8

Exposure controls / personal protection

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

DNEC/PNEC data	DNEC: Chronic effects systemic (Dermal): 0.15 mg/kg bw/day Acute effects systemic (Inhalation): 21.2 mg/m³ Chronic effects systemic(Inhalation): 1.1 mg/m³ PNEC Fresh water: 0.1mg/L Fresh water sediment: 0.433 mg/kg sediment dw Water Intermittent: 1 mg/L Microorganisms in sewage treatment: 100 mg/L Soil (Agriculture): 0.028 mg/kg soil dw Marine water: 0.01 mg/l Marine water sediment: 0.0433 mg/kg sediment dw Marine water intermittent: 0.1 mg/L
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: Butyl Rubber, 0.7mm (480 mins).
Respiratory protection	Full-face respirator 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)	1.056 g/mL DERIVED FROM: LITERATURE
Flash point	91 °C DERIVED FROM: LITERATURE
Acidity	Neutral DERIVED FROM: LITERATURE
Appearance / physical state	Liquid DERIVED FROM: LITERATURE
Colour	Colourless DERIVED FROM: LITERATURE
Odour	Not known DERIVED FROM: LITERATURE
Melting / freezing point	8.2°C DERIVED FROM: LITERATURE
Boiling point	224-226°C DERIVED FROM: LITERATURE
Solubility (water)	No data available
pH	7 DERIVED FROM: LITERATURE
Vapour pressure	No data available
Partition coefficient (log Pow)	-0.31 @ 25°C DERIVED FROM: LITERATURE
Auto-ignition / decomposition temp	300°C DERIVED FROM: LITERATURE

SECTION 10

Stability & reactivity

Chemical stability / reactivity	Stable under the prescribed storage conditions Violent reactions possible with: Strong oxidizing agents, Phosphorus halides, Acid chlorides
Conditions to avoid	Excessive heat. Avoid moisture
Incompatible materials	Strong oxidizing agents. Acid chlorides
Hazardous decomposition products	See section 5

SECTION 11

Toxicological information

Acute toxicity (LD50 / LC50)	Information on hazard classes as defined in Regulation (EC) No 1272/2008. Acute Toxicity Estimate (ATE): LD50 > 300 mg/kg < 2000 mg/kg
Skin corrosion / irritation	Not classified
Eye corrosion / irritation	Causes serious eye damage
Respiratory / skin sensitisation	Not classified
Carcinogenicity	Suspected of damaging fertility
Mutagenicity	<i>Not applicable</i>
Reproductive toxicity	<i>Not applicable</i>
STOT (single / repeated exposure)	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	Not classified
Endocrine disruptors	Not Classified

SECTION 12

Ecological information

Aquatic toxicity	LC50 = 100 mg/L, 96h semi-static (<i>Oryzias latipes</i>)
Persistence & degradability	aerobic - Exposure time 28 d Result: 5 % - Not readily biodegradable.
Bioaccumulative potential	Bioaccumulation: <i>Cyprinus carpio</i> (Carp)(1,3-Dimethyl-2-imidazolidone) Bioconcentration factor (BCF): < 0.37
Mobility in soil	<i>No data available</i>
PBT / vPvB assessment	This substance/mixture does not meet the PBT criteria of REACH Annex XIII. This substance/mixture does not meet the vPvB criteria of REACH Annex XIII

SECTION 13

Disposal considerations

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

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	No.
Special precautions for user	Not applicable

SECTION 15

Regulatory information

REACH code	Y110
UFI code	Not applicable
ECHA notification	Not applicable
Chemical safety assessment carried out?	No

SECTION 16

Other information

Revision notes / other information	Hazard classification and labelling according to Regulation (EC)1272/2008 All eye/face protection should comply with EN ISO 16321-1:2022 Respiratory equipment: Reusable air-purifying respirator (APR) Filter Type: ABEK Standard: EN 14387 National Regulations: -Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances Other regulations, limitations and legal regulations: -Directive 94/33/EC- The protection of young people at work
------------------------------------	---

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.