

# SAFETY DATA SHEET

according to 1907/2006/EC, Article 3

Version no. : 2.1  
Prepared on : 30.03.2019  
Revised on : 05.02.2026

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

### 1.1 Product identifiers

**Product name** 1,3-Dimethyl-2-imidazolidinone  
**Product Number** PSR2037  
**Brand** PureSynth research chemicals  
**CAS No.** 80-73-9

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

**Identified uses** : Solvent for analytical purpose

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

**Company** PureSynth Research Chemicals GmbH  
64683 Einhausen Marie-Curie-StraBe. 3, Germany

### 1.4 Emergency telephone number

**Worldwide Helpline No.:** 1800-8908-260

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008

Acute toxicity, Oral (Category 4), H302  
Serious eye damage (Category 1), H318  
Reproductive toxicity (Category 1B), H360F

### 2.2 Label elements

#### Labelling according Regulation (EC) No 1272/2008

**Pictogram**



**Signal word**

Danger

**Hazard statement(s)**

H302 Harmful if swallowed.  
H318 Causes serious eye damage  
H360F May damage fertility.

**Precautionary statement(s)**

P202 Do not handle until all safety precautions have been read and understood.  
P264 Wash skin thoroughly after handling.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.  
P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313

IF exposed or concerned: Get medical advice/ attention.

Supplemental Hazard  
Statements

None

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: Composition / information on ingredients

### 3.1 Substances

Common names & Synonyms	Mol. formula	CAS number
Component	Classification	Concentration
N,N'-Dimethylethyleneurea	C <sub>5</sub> H <sub>10</sub> N <sub>2</sub> O	80-73-9
1,3-Dimethyl-2-imidazolidone	Acute Tox. 4; Eye Dam. 1; Repr. 2; H302, H318, H360F	<= 100 %

## SECTION 4: First aid measures

### Description of first aid measures

#### General advice

Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air. Call in physician.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

#### If swallowed

After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.

#### Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

#### Indication of any immediate medical attention and special treatment needed

No data available

## SECTION 5: Firefighting measures

### Extinguishing media

Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

### Suitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

### Special hazards arising from the substance or mixture

Carbon oxides

Nitrogen oxides (NO<sub>x</sub>)

Combustible.

Vapors 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.

### Further information

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

<b>Personal precautions, protective equipment and emergency procedures</b>	Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
<b>Environmental precautions</b>	Do not let product enter drains
<b>Methods and materials for containment and cleaning up</b>	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material. Dispose of properly. Clean up affected area.
<b>Reference to other sections</b>	For disposal see section 13.

## SECTION 7: Handling and storage

<b>Precautions for safe handling</b>	For precautions see section 2.2.
<b>Conditions for safe storage, including any incompatibilities</b>	Tightly closed. hygroscopic
<b>Specific end use(s)</b>	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## SECTION 8: Exposure controls / Personal protection

<b>Control parameters</b>	Components with workplace control parameters
<b>Exposure controls</b>	
<b>Appropriate engineering controls</b>	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
<b>Personal protective equipment:</b>	
<b>Eye / face protection</b>	Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
<b>Skin protection</b>	This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves. Full contact Material: butyl-rubber Minimum layer thickness: 0.7 mm Break through time: 480 min Splash contact Material: Nitrile rubber Minimum layer thickness: 0.4 mm Break through time: 30 min
<b>Body Protection</b>	Protective clothing
<b>Respiratory protection</b>	Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.
<b>Control of environmental exposure</b>	Do not let product enter drains.

**SECTION 9: Physical and chemical properties**

<b>Appearance</b>	Form: clear, liquid Color: colorless
<b>Odour</b>	Characteristic
<b>pH - Value</b>	neutral
<b>Density</b>	No data available
<b>Boiling Point</b>	224 - 226 °C - lit
<b>Melting Point</b>	8.2 °C
<b>Solubility in water</b>	1.000 g/l at 25 °C - OECD Test Guideline 105- miscible in all proportions
<b>Flash point</b>	104 °C - closed cup
<b>Vapour pressure</b>	< 1 hPa at 20 °C
<b>Auto -ignition temperature</b>	300 °C - ASTM E-659
<b>Vapour density</b>	No data available
<b>Flammability (solid, gas)</b>	No data available
<b>Evaporation rate</b>	No data available
<b>Partition coefficient: n- octanol / water</b>	log Pow: -0.31 at 25 °C - Bioaccumulation is not expected.
<b>Viscosity</b>	Viscosity, kinematic: 1,43 mm <sup>2</sup> /s at 40 °C - OECD TestGuideline 1141.95 mm <sup>2</sup> /s at 20 °C - OECD Test Guideline 114 Viscosity, dynamic: 2.07 mPa.s at 20 °C - OECD Test Guideline 1141.51 mPa.s at 40 °C - OECD Test Guideline 114
<b>Explosive properties</b>	No data available
<b>Upper / lower flammability or explosive limits</b>	Upper explosion limit: 8.4 %(V) Lower explosion limit: 1.3 %(V)
<b>Oxidizing properties</b>	No data available
<b>Other safety information:</b>	No data available

**SECTION 10: Stability and reactivity**

<b>Reactivity</b>	Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.
<b>Chemical stability</b>	The product is chemically stable under standard ambient conditions (room temperature).
<b>Possibility of hazardous reactions</b>	Violent reactions possible with: Strong oxidizing agents phosphorus halides Acid chlorides
<b>Condition to avoid</b>	Strong heating.
<b>Incompatible materials</b>	No data available
<b>Hazardous decomposition products</b>	In the event of fire: see section 5

## SECTION 11: Toxicological information

<b>Acute toxicity</b>	LD50 Oral - Rat - female - 300 - 2.000 mg/kg LD50 Dermal - Rabbit - male - > 2.000 mg/kg
<b>Skin corrosion/irritation</b>	Skin - Rabbit Result: slight irritation - 4 h
<b>Serious eye damage/eye irritation</b>	Eyes - Rabbit Result: Causes serious eye damage.
<b>Respiratory or skin sensitization</b>	Local lymph node assay (LLNA) - Mouse Result: negative
<b>Germ cell mutagenicity</b>	Ames test Escherichia coli/Salmonella typhimurium Result: negative Mutagenicity (mammal cell test): chromosome aberration. Chinese hamster lung cells Result: negative In vitro mammalian cell gene mutation test Mouse lymphoma test Result: negative
<b>Carcinogenicity</b>	IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
<b>Reproductive toxicity</b>	Suspected of damaging the unborn child. Suspected of damaging fertility.
<b>Specific target organ toxicity - single exposure</b>	No data available
<b>Specific target organ toxicity - repeated exposure</b>	No data available
<b>Aspiration hazard</b>	Oral - Testes
<b>Additional Information</b>	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Repeated dose toxicity - Rat - male - Oral - 28 d - No observed adverse effect level - 30 mg/kg RTECS: NJ0660000 Unconsciousness, Nausea, Vomiting, Diarrhoea, Convulsions To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## SECTION 12: Ecological information

<b>Toxicity</b>	
Toxicity to fish	semi-static test LC50 - Oryzias latipes (Orange-red killifish) - > 100 mg/l - 96 h
Toxicity to other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h static test NOEC - Daphnia magna (Water flea) - >= 100 mg/l - 48 h
Toxicity to algae	static test ErC50 - Desmodesmus subspicatus (green algae) - > 100 mg/l - 72 h
Toxicity to bacteria	static test NOEC - activated sludge - 1.000 mg/l - 3 h
<b>Persistence and degradability</b>	Biodegradability aerobic - Exposure time 28 d Result: 5 % - Not readily biodegradable. (OECD Test Guideline 301F)
<b>Bioaccumulative potential</b>	Bioaccumulation Cyprinus carpio (Carp)(1,3-Dimethyl-2-imidazolidone) Bioconcentration factor (BCF): < 0.37
<b>Mobility in soil</b>	No data available
<b>Results of PBT and vPvB assessment</b>	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
<b>Other adverse effects</b>	No data available

**SECTION 13: Disposal considerations**

**Waste treatment methods**    No data available  
**Products**  
**Contaminated packaging**    No data available

**SECTION 14: Transport information**

	UN no.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
<b>ADR / RID</b>	-	Not dangerous goods	-	-	No
<b>IMDG</b>	-	Not dangerous goods	-	-	No
<b>IATA</b>	-	Not dangerous goods	-	-	No

**SECTION 15: Regulatory information**

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

**15.2 Chemical safety assessment**

For this product a chemical safety assessment was not carried out.

**SECTION 16: Other information**

The information in this SDS is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The user must be determined suitability of this information for his application.