

SAFETY DATA SHEET

according to 1907/2006/EC, Article 3

Version no. : 2.1
Prepared on : 30.03.2019
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SECTION 1: Identification of the substance/mixture and of the company/undertaking.

1.1 Product identifiers

Product name N, N-Dimethylacetamide
Product Number PSR47152 / PSR41227 / PSR2028
Brand PureSynth research chemicals
CAS No. 127-19-5

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, Inhalation (Category 4), H332

Acute toxicity, Dermal (Category 4), H312

Eye irritation (Category 2), H319

Reproductive toxicity (Category 1B), H360D

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word Danger

Hazard statement(s)

H312 + H332 Harmful in contact with skin or if inhaled.

H319 Causes serious eye irritation.

H360D May damage the unborn child

Precautionary statement(s)

P202 Do not handle until all safety precautions have been read and understood

P280	Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection
P302 + P352 + P312	IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/ Doctor if you feel unwell.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable For breathing. 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, bio accumulative and toxic (PBT), Or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher

SECTION 3: Composition / information on ingredients

3.1 Substances

Common names & Synonyms	Mol. formula	CAS number
Dimethyl Acetamide	C ₄ H ₉ NO	127-19-5
Component	Classification	Concentration
N,N-Dimethylacetamide	Acute Tox. 4; Eye Irrit. 2; Repr. 1B; H332, H312, H319, H360D	<= 100 %

SECTION 4: First aid measures

Description of first aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled	After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen
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. Call in ophthalmologist. Remove contact lenses.
If swallowed	After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.
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: Fire fighting measures

Extinguishing media Suitable extinguishing media	Carbon dioxide (CO ₂) Foam Dry powder
	Carbon oxides Nitrogen oxides (NO _x) Combustible.
Special hazards arising from the substance or mixture	Fire may cause evolution of: nitrogen oxides, nitrous gases Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapors possible in the event of fire.
Advice for fire-fighters	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	Remove container from danger zone and cool with water. 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, protective equipment and emergency procedures	Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, and consult an expert. For personal protection see section 8.
Environmental precautions	Do not let product enter drains.
Methods and materials for containment and cleaning up	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
Reference to other sections	For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling	Work under hood. Do not inhale substance/mixture. Avoid generation of vapors/aerosols. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge. Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.
Conditions for safe storage, including any incompatibilities	Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons. Recommended storage temperature see product label. Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects.
Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls / Personal protection

Control parameters	No data available.
Exposure controls	
Appropriate engineering controls	No data available.
Personal protective equipment:	
Eye / face protection	<p>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). Safety glasses.</p> <p>Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.</p>
Skin protection	<p>The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.</p> <p>If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.</p>
Body Protection	<p>protective clothing</p>
Respiratory protection	<p>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.</p>
Control of environmental exposure	Do not let product enter drains.

SECTION 9: Physical and chemical properties

Appearance	Form: Liquid
	Colour: Colourless
Odour	Ammonia-like
pH - Value	ca.4 at 200 g/l at 20 °C
Density	0.94 g/cm ³ at 20 °C
Boiling Point	ca.161 °C at 1.013,25 hPa
Melting Point	-18.6 °C
Solubility in water	1.000 g/l at 20 °C - completely miscible
Flash point	64 °C - closed cup
Vapour pressure	2 hPa at 21.7 °C
Auto -ignition temperature	345 °C
	at 999 - 1.011 hPa - DIN 51794
Vapour density	3.01 - (Air = 1.0)
Flammability (solid, gas)	No data available
Evaporation rate	No data available
Partition coefficient: n- octanol / water	Log Pow: -0.77 - Bioaccumulation is not expected. (Lit.)
Viscosity	Viscosity, dynamic: 0,92 mPa.s at 25 °C
Explosive properties	No data available
Upper / lower flammability or explosive limits	Upper explosion limit: 11.5 %(V) Lower explosion limit: 1.8 %(V)
Oxidizing properties	No data available
Other safety information: No data available	
Dissociation constant	-0,19 at 25 °C
Relative vapour density	3,01 - (Air = 1.0)

SECTION 10: Stability and reactivity

Reactivity	Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature). Violent reactions possible with: Strong oxidizing agents Halogenated hydrocarbon
Possibility of hazardous reactions	nitrates tetrachloromethane Aldehydes Strong acids
Condition to avoid	Strong heating
Incompatible materials	various plastics
Hazardous decomposition products	In the event of fire: see section 5

SECTION 11: Toxicological information

Acute toxicity	<p>Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and Gastrointestinal tract.</p> <p>Acute toxicity estimates Inhalation - 4 h – 11.1 mg/l LC50 Inhalation - Rat - female - 1 h – 8.8 mg/l Remarks: (ECHA) Acute toxicity estimate Dermal – 1100.1 mg/kg (Expert judgment) Acute toxicity estimates Dermal – 1100.1 mg/kg</p>
Skin corrosion/irritation	<p>Skin - Rabbit Result: No skin irritation</p>
Serious eye damage/eye irritation	<p>Eyes - Rabbit Result: Irritating to eyes.</p>
Respiratory or skin sensitization	<p>Local lymph node assay (LLNA) - Guinea pig Result: negative Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Result: negative Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: Human lymphocytes Metabolic activation: with and without metabolic activation Result: negative Test Type: In vitro mammalian cell gene mutation test Test system: Chinese hamster lung cells Metabolic activation: with and without metabolic activation Result: negative</p>
Germ cell mutagenicity	<p>No data available</p>
Carcinogenicity	<p>May damage the unborn child.</p>
Reproductive toxicity	<p>No data available</p>
Specific target organ toxicity - single exposure	<p>No data available</p>
Specific target organ toxicity - repeated exposure	<p>No data available</p>
Aspiration hazard	<p>No data available</p>
Additional Information	<p>Repeated dose toxicity - Rat - male and female - Oral - 2 yr - NOAEL (No observed adverse effect level) - 100 - 300 mg/kg - LOAEL (Lowest observed adverse effect level) - 300 - 1.000 mg/kg impaired judgment, emotional instability, toxic psychosis, nystagmus, dysarthria, Ataxia. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. After absorption of toxic quantities: Nausea Vomiting inebriation muscle twitching hallucinations Diarrhea lack of appetite narcosis Coma Damage to:</p>

Liver
Kidney
Central nervous system Other dangerous properties cannot be excluded.
This substance should be handled with particular care.
Liver - Irregularities - Based on Human Evidence

SECTION 12: Ecological information

Toxicity

Toxicity to fish static test LC50 - *Leuciscus idus* (Golden orfe) - > 500 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates static test EC50 - *Daphnia magna* (Water flea) - > 500 mg/l - 48 h
Toxicity to algae static test ErC50 - *Desmodesmus subspicatus* (green algae) - > 500 mg/l - 72 h
Toxicity to bacteria static test EC10 - activated sludge - > 1.995 mg/l - 30 min

Persistence and degradability

aerobic - Exposure time 28 d
Result: 70 % - Readily biodegradable.
Remarks: The 10-day time window criterion is not fulfilled.

Biodegradability

No data available

Bio accumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

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

Other adverse effects

No data available.

SECTION 13: Disposal considerations

Waste treatment methods Products

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

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

SECTION 15: Regulatory information

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.

Authorisations and/or restrictions on use

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : N,N-Dimethylacetamide
REACH - Restrictions on the manufacture, placing on the market and use of certain

dangerous substances, preparations and articles : N,N-Dimethylacetamide
(Annex XVII)

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or
Stricter national regulations where applicable.
Take note of Dir 94/33/EC on the protection of young people at work.

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.