

SAFETY DATA SHEET

according to 1907/2006/EC, Article 3

Version no. : 2.1
Prepared on : 30.03.2019
Revised on : 23.09.2025

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

1.1 Product identifiers

Product name 4-Nitropyridine N-Oxide
Product Number PSR50154
Brand PureSynth research chemicals
CAS No. 1124-33-0

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

Identified uses : Laboratory Reagent

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

Acute toxicity, Category 3 H301: Toxic if swallowed.
Skin irritation, Category 2 H315: Causes skin irritation.
Eye irritation, Category 2 H319: Causes serious eye irritation.
Germ cell mutagenicity, Category 2 H341: Suspected of causing genetic defects

2.2 Label elements

Pictogram



Signal word

Danger

Hazard statement(s)

H301 Toxic if swallowed.
H315 Causes skin irritation
H319 Causes serious eye irritation
H341 Suspected of causing genetic defects.

Precautionary statement(s)

P201 Obtain special instructions before use.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P337 + P313 If eye irritation persists: 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.

Ecological information: 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.

Toxicological information: 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.

SECTION 3: Composition / information on ingredients

3.1 Substances

Common names & Synonyms	Mol. formula	CAS number
4-Nitropyridine N-Oxide	C ₅ H ₄ N ₂ O ₃	1124-33-0
Component	Classification	Concentration
4-Nitropyridine N-Oxide	--	>= 90 - <= 100

SECTION 4: First aid measures

Description of first aid measures

General advice	Consult a physician if necessary. Remove to fresh air.
If inhaled	Remove person to fresh air and keep comfortable for breathing. Get medical advice/ attention.
In case of skin contact	Take off all contaminated clothing immediately. Wash off with plenty of water. Get medical advice/ attention.
In case of eye contact	Rinse with plenty of water. If easy to do, remove contact lens, if worn. Get medical advice/ attention.
If swallowed	Immediately call a POISON CENTER or doctor/ physician. Rinse mouth.
Most important symptoms and effects, both acute and delayed	No data available.
Indication of any immediate medical attention and special treatment needed	No data available.

SECTION 5: Fire fighting measures

Extinguishing media	
Suitable extinguishing media	Dry powder, Foam, Water spray, Carbon dioxide (CO ₂)
Unsuitable extinguishing media	No data available.
Special hazards arising from the substance or mixture	May explode in fire.
Advice for fire-fighters	Special protective equipment for firefighters: Use personal protective equipment. Specific extinguishing methods: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Immediately evacuate personnel to safe areas. Cool closed containers exposed to fire with water spray. Remove undamaged containers from fire area if it is safe to do so.
Further information	No data available.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures	Wear suitable protective equipment. Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.
Environmental precautions	Prevent product from entering drains.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust.
Reference to other sections	For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling	<p>Technical measures:</p> <p>Prevent dispersion of dust.</p> <p>Local/Total ventilation:</p> <p>Ensure adequate ventilation.</p> <p>Handle product only in closed system or provide appropriate exhaust ventilation at machinery.</p> <p>Use a local exhaust ventilation.</p> <p>Advice on safe handling:</p> <p>Avoid contact with skin, eyes and clothing.</p> <p>Wear personal protective equipment.</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>Do not subject to grinding, shock or friction.</p> <p>Wash hands and face thoroughly after handling</p>
Conditions for safe storage, including any incompatibilities	<p>Requirements for storage areas and containers: Keep container tightly closed.</p> <p>Store in a cool and shaded area. Protect from moisture. Keep under inert gas.</p> <p>Store locked up. Avoid shock and friction.</p> <p>Storage class (TRGS 510): 6.1C</p>
Specific end use(s)	No information available

SECTION 8: Exposure controls / Personal protection

Control parameters	Contains no substances with occupational exposure limit values.
Appropriate engineering controls	Install a closed system or local exhaust. Also install safety shower and eye bath.
Eye / face protection	Safety glasses, Safety goggles, Face-shield
Skin protection	Impervious protective clothing
Body Protection	Impervious protective clothing
Respiratory protection	Dustproof gas mask Self-contained breathing apparatus
Control of environmental exposure	No information available.

SECTION 9: Physical and chemical properties

Appearance	Form: Solid Colour: yellow - green
Odour	No data available
pH - Value	No data available
Density	No data available
Boiling Point	No data available
Melting Point	161 °C
Solubility in water	No data available
Flash point	No data available
Vapour pressure	No data available
Auto -ignition temperature	No data available
Vapour density	No data available
Flammability (solid, gas)	No data available
Evaporation rate	No data available
Partition coefficient: n- octanol / water	-0.55
Viscosity	Viscosity, dynamic : No data available Viscosity, kinematic : No data available
Explosive properties	No data available
Upper / lower flammability or explosive limits	No data available
Oxidizing properties	None

Other safety information: No data available

SECTION 10: Stability and reactivity

Reactivity	Not applicable
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	May explosively decompose on heating, shock, friction, etc.
Condition to avoid	Heat, Avoid shock and friction., Exposure to moisture
Incompatible materials	Oxidizing agents, Acid chlorides
Hazardous decomposition products	Carbon monoxide, Carbon dioxide (CO ₂), Nitrogen oxides (NO _x).

SECTION 11: Toxicological information

Acute toxicity	Assessment: The component/mixture is toxic after single ingestion. Acute oral toxicity- LD50 (Rat): 107 mg/kg Assessment: The component/mixture is toxic after single ingestion. Acute dermal toxicity- LDLo (Rabbit): 360 mg/kg Assessment: The substance or mixture has no acute dermal toxicity Acute toxicity (other routes of administration)- LD50 (Rat): 25 mg/kg Application Route: Intraperitoneal injection
Skin corrosion/irritation	Skin irritation
Serious eye damage/eye irritation	Eye irritation

Respiratory or skin sensitization	No data available
Germ cell mutagenicity	Suspected of inducing heritable mutations in the germ cells of humans.
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available
Additional Information	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.

SECTION 12: Ecological information

Toxicity

Toxicity to fish No data available

Persistence and degradability No data available

Bio accumulative potential Partition coefficient: noctanol/water (log value): -0.55

Mobility in soil No data available

Results of PBT and vPvB assessment 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.

Endocrine disrupting properties 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

Other adverse effects No data available

SECTION 13: Disposal considerations

Waste treatment methods products Disposal in accordance with local and national regulations. Take precautions against ignition or explode. Entrust disposal to a licensed waste disposal company.

Contaminated packaging Disposal in accordance with local and national regulations. Before disposal of used container, remove contents completely

SECTION 14: Transport information

	UN no.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
ADR / RID	2811	TOXIC SOLID, ORGANIC, N.O.S.	6.1	III	No
IMDG	2811	TOXIC SOLID, ORGANIC, N.O.S.	6.1	III	No
IATA	2811	Toxic solid, organic, n.o.s.	6.1	III	No

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
Regulation (EU) No 2024/590 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	:	Not applicable

Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

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.