

SAFETY DATA SHEET

according to 1907/2006/EC, Article 3

Revision date: 30/03/2019

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

1.1 Product identifiers

Product name	N-Nitrosodimethylamine
Product Number	PSR37118
Brand	PureSynth research chemicals
CAS No.	62-75-9

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

Identified uses : Laboratory chemicals

1.3 Details of the supplier of the safety data sheet

Company	PureSynth Research Chemicals Pvt. Ltd.
	A-27, A.P.I.E, Hyderabad, Telangana-500037

1.4 Emergency telephone number

Worldwide Helpline No.: 1800-120-1234-34

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 2), H225
 Acute toxicity, Oral (Category 3), H301
 Acute toxicity, Inhalation (Category 3), H331
 Acute toxicity, Dermal (Category 3), H311
 Carcinogenicity (Category 2), H351
 Specific target organ toxicity - single exposure (Category 1), Eyes, Central nervous system, H370

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word Danger

Hazard statement(s)

H225	Highly flammable liquid and vapor
H301 + H311 + H331	Toxic if swallowed, in contact with skin or if inhaled.
H350	May cause cancer
H370	Causes damage to organs,(Eyes, Central nervous system).

Precautionary statement(s)

P280	Wear protective gloves/ protective clothing.
P201	Obtain special instructions before use
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P311	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.

Supplemental Hazard Statements	None
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2.2 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
-	-	67-56-1
Component	Classification	Concentration
Methanol	Flam. Liq. 2; Acute Tox.3; STOT SE 1; H225, H301, H331, H311, H370 Concentration limits: >= 10 %: STOT SE 1, H370; 3 - < 10 %: STOT SE 2, H371;	>= 90 - <=100 %
N-Nitrosodimethylamine	Acute Tox. 2; Acute Tox. 1; Carc. 1B; STOT RE 1; Aquatic Chronic 2; H300, H330, H350, H372, H411 Concentration limits :> = 0,001 %: Carc. 1B,H350;	>= 0,1 - < 0,25 %

SECTION 4: First aid measures

Description of first aid measures

General advice	First aiders need to protect themselves. Show this material 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. Call a physician immediately.
In case of eye contact	After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.
If swallowed	After swallowing: fresh air. Make victim drink ethanol (e.g. 1 drinking glass of a 40% alcoholic beverage). Call a doctor immediately (mention

methanol ingestion). Only in exceptional cases, if no medical care is available within one hour, induce vomiting (only in fully conscious persons) and make victim drink ethanol again (approx. 0.3 ml of a 40% alcoholic beverage/kg body weight/hour)

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

Foam Carbon dioxide (CO₂) Dry powder.

Carbon oxides

Nitrogen oxides (NO_x)

Special hazards arising from the substance or mixture

Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Risk of dust explosion.

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..

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. Risk of explosion.

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 (e.g. Chemizorb®). 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

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons.

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	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses.
Skin protection	Required
Body Protection	Flame retardant antistatic protective clothing.
	Required when vapours/aerosols are generated.
	Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.
Respiratory protection	Recommended Filter type: Filter type ABEK 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.
Control of environmental exposure	Do not let product enter drains. Risk of explosion.

SECTION 9: Physical and chemical properties

Appearance	Form: Liquid
Odour	No data available
pH - Value	No data available
Density	No data available
Boiling Point	No data available
Melting Point	No data available
Solubility in water	No data available
Flash point	9.7 °C
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	No data available
Viscosity	No data available
Explosive properties	No data available
Upper / lower flammability or explosive limits	No data available
Oxidizing properties	No data available
Other safety information:	No data available

SECTION 10: Stability and reactivity

Reactivity	Vapors may form explosive mixture with air.
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature).
Possibility of hazardous reactions	No data available.
Condition to avoid	Warming.
Incompatible materials	Strong oxidizing agents
Hazardous decomposition products	In the event of fire: see section 5

SECTION 11: Toxicological information

Acute toxicity	Acute toxicity estimate Oral - 99,67 mg/kg (Calculation method) Acute toxicity estimate Inhalation - 4 h - 3,06 mg/l(Calculation method) Acute toxicity estimate Dermal - 300,1 mg/kg (Calculation method)
Skin corrosion/irritation	No data available)
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Specific target organ toxicity - repeated exposure	Mixture causes damage to organs. - Eyes, Central nervous system
Aspiration hazard	No data available
Additional Information	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Other dangerous properties cannot be excluded. This substance should be handled with particular care. Handle in accordance with good industrial hygiene and safety practice.
Skin corrosion/irritation	Skin – Rabbit Result: No skin irritation Remarks: (ECHA) Drying-out effect resulting in rough and chapped skin.
Serious eye damage/eye irritation	Eyes - Rabbit Result: No eye irritation Remarks: (ECHA)
Respiratory or skin sensitization	Sensitisation test: - Guinea pig Result: negative (OECD Test Guideline 406)
Germ cell mutagenicity	Based on available data the classification criteria are not met. Test Type: Ames test Test system: Salmonella typhimurium Result: negative Test Type: In vitro mammalian cell gene mutation test Test system: Chinese hamster lung cells Result: negative Method: OECD Test Guideline 474

Species: Mouse - male and female - Bone marrow

Result: negative

Did not show carcinogenic effects in animal experiments.

Carcinogenicity

Reproductive toxicity

Specific target organ toxicity –

Single exposure

Based on available data the classification criteria are not met.

Causes damage to organs. - Eyes, Central nervous system

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2) Acute oral toxicity - Nausea, Vomiting

Acute inhalation toxicity - Irritation symptoms in the respiratory tract

No data available

Specific target organ toxicity –

repeated exposure

Nitrosomorpholine

Acute toxicity

LD50 Oral Oral - Rat - 23 mg/kg Remarks: (Lit.)

LC50 Inhalation - Rat - 4 h - 0,24

Remarks: (Lit.) Dermal: No data available

Carcinogenicity

Presumed to have carcinogenic potential for human

Specific target organ toxicity

- repeated exposure

Causes damage to organs through prolonged or repeated exposure. - Liver

SECTION 12: Ecological information

Toxicity

No data available

Persistence and degradability

Biodegradability

No data available

Bio accumulative potential

No data available

Bioaccumulation

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, bioaccumulative or toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other adverse effects

No data available

Components : Methanol

Toxicity to fish

flow-through test LC50 - Lepomis macrochirus (Bluegill) - 15.400,0 mg/l - 96 h (US-EPA)

Toxicity to daphnia and other aquatic invertebrates

semi-static test EC50 - Daphnia magna (Water flea) - 18.260 mg/l - 96 h (OECD Test Guideline 202)

Toxicity to algae

static test ErC50 - Pseudokirchneriella subcapitata (green algae) - ca. 22.000,0 mg/l - 96 h (OECD Test Guideline 201)

Toxicity to bacteria

static test IC50 - activated sludge - > 1.000 mg/l - 3 h (OECD Test Guideline 209)

N-Nitrosodimethylamine

Toxicity to fish

LC50 - Pimephales promelas (fathead minnow) - 832,00 - 1.062,00 mg/l - 96 h

Toxicity to algae

EC50 - Pseudokirchneriella subcapitata (green algae) - 4,00 mg/l - 96 h

SECTION 13: Disposal considerations

Waste treatment methods	See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.
Products	
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	1230	METHANOL, SOLUTION	3 (6.1)	II	No
IMDG	1230	METHANOL, SOLUTION	3 (6.1)	II	No
IATA	1230	METHANOL, SOLUTION	3 (6.1)	II	No

SECTION 15: Regulatory information

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

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

Authorisations and/or restrictions on use

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Methanol

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous : ACUTE TOXIC
: FLAMMABLE LIQUIDS

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.