

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Sodium azide pure

Revision date: 08.09.2023

Product code: 25240

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Sodium azide pure

REACH Registration Number: 01-2119457019-37-XXXX
CAS No: 26628-22-8
Index No: 011-004-00-7
EC No: 247-852-1

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Laboratory chemical

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name: AnalytiChem GmbH
Street: Stempelstraße 6
Place: D-47167 Duisburg
Telephone: 0203/5194-0
E-mail: info@analytichem.de
Contact person: Abteilung Produktsicherheit
E-mail: produktsicherheit@analytichem.de
Internet: www.analytichem.de
Responsible Department: Abteilung Produktsicherheit

Telefax: 0203/5194-290
Telephone: 0203/5194-107/117

1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

Further Information

No data available

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Acute Tox. 1; H310
Acute Tox. 2; H300
STOT RE 2; H373
Aquatic Acute 1; H400
Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

2.2. Label elements**Regulation (EC) No 1272/2008****Signal word:** Danger**Pictograms:**

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Hazard statements

- H300+H310 Fatal if swallowed or in contact with skin.
H373 May cause damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

- P201 Obtain special instructions before use.
P273 Avoid release to the environment.
P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.

Special labelling of certain mixtures

- EUH032 Contact with acids liberates very toxic gas.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

- Sum formula: NaN₃
Molecular weight: 65,01 g/mol

Hazardous components

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	Classification (Regulation (EC) No 1272/2008)	
26628-22-8	sodium azide	100 %
	247-852-1	011-004-00-7
	01-2119457019-37-XXXX	
	Acute Tox. 1, Acute Tox. 2, STOT RE 2, Aquatic Acute 1, Aquatic Chronic 1; H310 H300 H373 H400 H410 EUH032	

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
26628-22-8	247-852-1	sodium azide	100 %
		inhalation: LC50 = > 0,054 - < 0,52 mg/l (dusts or mists); dermal: ATE = 5 mg/kg; oral: ATE = 5 mg/kg	

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Self-protection of the first aider

After inhalation

Provide fresh air.
Call a physician immediately.

After contact with skin

Wash immediately with: Water
Take off immediately all contaminated clothing and wash it before reuse.
Call a physician immediately.

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After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.
Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Rinse mouth immediately and drink plenty of water.
(Water, to which activated charcoal may be added)
Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Irritant, Cough
Dyspnoea, Dizziness
Gastrointestinal complaints, Vomiting
Circulatory collapse, Unconsciousness
Headache, Spasms

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Dry sand
Cement

Unsuitable extinguishing media

Water
Foam

5.2. Special hazards arising from the substance or mixture

Combustible solids
Danger of dust explosion.
Hazardous combustion products
In case of fire may be liberated: Nitrogen oxides (NO_x)

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.
Avoid contact with skin, eyes and clothes.

Additional information

Suppress gases/vapours/mists with water spray jet.
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Provide adequate ventilation.
Use personal protection equipment.
Avoid contact with skin, eyes and clothes.
Remove persons to safety.
Emergency procedures
Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

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For containment

- Cover drains.
- Prevent spread over a wide area (e.g. by containment or oil barriers).
- Collect in closed and suitable containers for disposal.
- Take up carefully when dry. Take up dust-free and set down dust-free.

For cleaning up

- Clean contaminated articles and floor according to the environmental legislation.

Other information

- Provide adequate ventilation.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

- Safe handling: see section 7
- Personal protection equipment: see section 8
- Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

- Avoid exposure - obtain special instructions before use.
- Keep container dry. Do not allow contact with water.
- If handled uncovered, arrangements with local exhaust ventilation have to be used.
- Avoid dust formation.
- Do not breathe dust.
- Read label before use.
- Use extractor hood (laboratory).

Advice on protection against fire and explosion

- Danger of dust explosion.

Advice on general occupational hygiene

- Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.
- Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Further information on handling

- Draw up and observe skin protection programme.
- Wash hands and face before breaks and after work and take a shower if necessary.
- Take off immediately all contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

- Store in a dry place.
- Store in a place accessible by authorized persons only.

Further information on storage conditions

- Store in a well-ventilated place. Keep container tightly closed.
- storage temperature +15°C - +25°C

7.3. Specific end use(s)

- Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Occupational exposure limits

CAS No	Substance	ppm	mg/m ³	fib/cm ³	Category	Origin
26628-22-8	Sodium azide (as NaN ₃)	-	0.1		TWA (8 h)	
		-	0.3		STEL (15 min)	

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
26628-22-8	sodium azide			
Worker DNEL, long-term		inhalation	systemic	0,164 mg/m ³
Worker DNEL, long-term		dermal	systemic	0,0467 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	0,0167 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,0167 mg/kg bw/day

PNEC values

CAS No	Substance	Value
26628-22-8	sodium azide	
Freshwater		0,00035 mg/l
Freshwater (intermittent releases)		0,0035 mg/l
Freshwater sediment		0,0167 mg/kg
Marine sediment		0,00072 mg/kg
Micro-organisms in sewage treatment plants (STP)		0,03 mg/l

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Provide adequate ventilation as well as local exhaust at critical locations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Trade name/designation KCL 741 Dermatrill® L

Recommended material: NBR (Nitrile rubber) 0,11 mm

Wearing time with permanent contact: > 480 min

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By short-term hand contact
Trade name/designation KCL 741 Dermatril® L
Recommended material: NBR (Nitrile rubber) 0,11 mm
Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. 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 EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Skin protection

Wear suitable protective clothing.

Respiratory protection

Respiratory protection necessary at: dust formation
Filtering device with filter or ventilator filtering device of type: P3

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	solid
Colour:	white
Odour:	odourless
Odour threshold:	not determined
Melting point/freezing point:	275 °C
Boiling point or initial boiling point and boiling range:	not determined
Flammability:	not determined
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	not determined
Auto-ignition temperature:	not determined
Decomposition temperature:	>275 °C
pH-Value:	not determined
Viscosity / kinematic:	not determined
Water solubility: (at 17 °C)	420 g/L
Solubility in other solvents	not determined
Dissolution rate:	not determined
Partition coefficient n-octanol/water:	log Pow: 0,3
Dispersion stability:	not determined
Vapour pressure:	not determined
Vapour pressure:	not determined
Density:	1,85 g/cm ³
Relative density:	not determined
Bulk density:	not determined
Relative vapour density:	not determined
Particle characteristics:	not determined

9.2. Other information

Information with regard to physical hazard classes

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Explosive properties

Danger of dust explosion.

Sustaining combustion:

No data available

Self-ignition temperature

Solid:

not determined

Gas:

not applicable

Oxidizing properties

No data available

Other safety characteristics

Evaporation rate:

not determined

Solvent separation test:

not determined

Solvent content:

not determined

Solid content:

100%

Sublimation point:

not determined

Softening point:

not determined

Pour point:

not determined

not determined:

Viscosity / dynamic:

not determined

Flow time:

not determined

Further Information

not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

Danger of dust explosion.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Heavy metals, Bromine

Acid, Dichloromethane

Dimethyl sulphate, Carbon disulfide

sulphuric acid, Copper

Lead, Water

10.4. Conditions to avoid

Do not allow contact with water.

Heat

10.5. Incompatible materials

Aluminium

Heavy metals

10.6. Hazardous decomposition products

In case of fire may be liberated:

SECTION 5: Firefighting measures

Further information

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetics, metabolism and distribution

Avoid exposure - obtain special instructions before use.

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Acute toxicity

Fatal in contact with skin.
Fatal if swallowed.
May cause respiratory irritation.
Pulmonary oedema

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
26628-22-8	sodium azide				
	oral	ATE 5 mg/kg			
	dermal	ATE 5 mg/kg			
	inhalation (4 h) dust/mist	LC50 > 0,054 - < 0,52 mg/l	Rat	Study report (2009)	EPA OPPTS 870.1300

Irritation and corrosivity

Based on available data, the classification criteria are not met.
slightly irritant but not relevant for classification.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (sodium azide)

Aspiration hazard

Based on available data, the classification criteria are not met.

Information on likely routes of exposure

No data available

Specific effects in experiment on an animal

No data available

Additional information on tests

No data available

Practical experience

No data available

11.2. Information on other hazards

Endocrine disrupting properties

No data available

Other information

No data available

Further information

Irritant, Cough
Dyspnoea, Dizziness
Gastrointestinal complaints, Vomiting
Circulatory collapse, Unconsciousness
Headache, Spasms

SECTION 12: Ecological information

12.1. Toxicity

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
26628-22-8	sodium azide					
	Acute fish toxicity	LC50 mg/l	5,46	96 h	Pimephales promelas Center for Lake Superior Environmental S	OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l	0,35	96 h	Pseudokirchneriella subcapitata REACH Registration Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50	5 mg/l	48 h	Gammarus fasciatus REACH Registration Dossier	other: EPA/600/R-95-13 6: Short-term meth
	Acute bacteria toxicity	(EC50 mg/l)	79,3	3 h	Activated sludge Study report (2017)	OECD Guideline 209

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

log Pow: 0,3

No indication of bioaccumulation potential.

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

Discharge into the environment must be avoided.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a physico-chemical treatment facility under observation of official regulations.

Do not mix with other wastes.

Do not empty into drains.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

Land transport (ADR/RID)

- 14.1. UN number or ID number:** UN 1687
14.2. UN proper shipping name: SODIUM AZIDE
14.3. Transport hazard class(es): 6.1
14.4. Packing group: II

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Hazard label: 6.1
 Classification code: T5
 Limited quantity: 500 g
 Excepted quantity: E4
 Transport category: 2
 Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 1687
14.2. UN proper shipping name: SODIUM AZIDE
14.3. Transport hazard class(es): 6.1
14.4. Packing group: II
 Hazard label: 6.1
 Classification code: T5
 Special Provisions: 802
 Limited quantity: 500 g
 Excepted quantity: E4

Marine transport (IMDG)

14.1. UN number or ID number: UN 1687
14.2. UN proper shipping name: SODIUM AZIDE
14.3. Transport hazard class(es): 6.1
14.4. Packing group: II
 Hazard label: 6.1
 Special Provisions: -
 Limited quantity: 500 g
 Excepted quantity: E4
 EmS: F-A, S-A

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 1687
14.2. UN proper shipping name: SODIUM AZIDE
14.3. Transport hazard class(es): 6.1
14.4. Packing group: II
 Hazard label: 6.1
 Limited quantity Passenger: 1 kg
 Passenger LQ: Y644
 Excepted quantity: E4
 IATA-packing instructions - Passenger: 669
 IATA-max. quantity - Passenger: 25 kg
 IATA-packing instructions - Cargo: 676
 IATA-max. quantity - Cargo: 100 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes
 Danger releasing substance: sodium azide

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

Information according to 2012/18/EU (SEVESO III): H1 ACUTE TOXIC
 Additional information: E1

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National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 2 - obviously hazardous to water

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 9,12.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
Acute Tox: Acute toxicity
STOT RE: Specific target organ toxicity - repeated exposure
Aquatic Acute: Acute aquatic hazard
Aquatic Chronic: Chronic aquatic hazard

Relevant H and EUH statements (number and full text)

H300	Fatal if swallowed.
H300+H310	Fatal if swallowed or in contact with skin.
H310	Fatal in contact with skin.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH032	Contact with acids liberates very toxic gas.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.