

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 07.06.2023

Version number 5

Revision: 07.06.2023

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

· **1.1 Product identifier**

· **Trade name:** Sodium azide



· **Article number:** 30175

· **CAS Number:**

26628-22-8

· **EC number:**

247-852-1

· **Index number:**

011-004-00-7

· **Registration number** 01-2119457019-37

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

No further relevant information available.

· **Application of the substance / the mixture:** Laboratory chemicals

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

SERVA Electrophoresis GmbH

Carl-Benz-Str. 7

D-69115 Heidelberg

Tel.: +49 6221 13840-0

FAX: +49 6221 13840-10

msds.info@serva.de

· **Information department:** Product Safety department Tel.: +49 6221 13840-35

· **1.4 Emergency telephone number:**

Medical Emergency Information in case of poisoning:

Poison Information Center Mainz - Phone: +49 (0) 6131 19240

(advisory service in German or English language)

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008:**



GHS06

Acute Tox. 2 H300 Fatal if swallowed.

Acute Tox. 1 H310 Fatal in contact with skin.

Acute Tox. 2 H330 Fatal if inhaled.



GHS08

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS09

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008:**

The substance is classified and labelled according to the GB CLP regulation.

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- **Hazard pictograms:** GHS06, GHS08, GHS09
- **Signal word:** Danger
- **Hazard statements:**
 - H300+H310+H330 Fatal if swallowed, in contact with skin or if inhaled.
 - H373 May cause damage to organs through prolonged or repeated exposure.
 - H410 Very toxic to aquatic life with long lasting effects.
- **Precautionary statements**
 - P264 Wash thoroughly after handling.
 - P273 Avoid release to the environment.
 - P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
 - P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
 - P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 - P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- **Additional information:**
 - EUH032 Contact with acids liberates very toxic gas.
- **Labelling of packages where the contents do not exceed 125 ml**
- **Hazard pictograms** GHS06, GHS08, GHS09
- **Signal word** Danger
- **Hazard statements**
 - H300+H310+H330 Fatal if swallowed, in contact with skin or if inhaled.
- **Precautionary statements**
 - P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
 - P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 - P330 Rinse mouth.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment:**
- **PBT:** PBT - assessment not available.
- **vPvB:** vPvB - assessment not available.
- **Determination of endocrine-disrupting properties** No further relevant information available.

SECTION 3: Composition/information on ingredients

- **3.1 Substances**
- **CAS No. Description:**
 - 26628-22-8 sodium azide
- **Identification number(s):**
- **EC number:** 247-852-1
- **Index number:** 011-004-00-7
- **Description:**

· **Empirical formula:**

26628-22-8	sodium azide	Na N_3
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· **MW:** 65.0

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
 - In case of irregular breathing or respiratory arrest provide artificial respiration.
 - Remove contaminated clothing.
- **After inhalation:** Provide fresh air. Call for doctor immediately.
- **After skin contact:**
 - Immediate wash with copious amounts of water and soap; rinse thoroughly; seek medical advice.
- **After eye contact:**
 - Rinse opened eye for several minutes under running water. Remove present contact lenses, if easy to do, and continue rinsing. Consult ophthalmologist immediately.

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- **After swallowing:**
Wash out mouth. Call a doctor immediately.
Do not induce vomiting!
- **4.2 Most important symptoms and effects, both acute and delayed**
Headache
Dizziness
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
Dry chemical
Dry sand
- **For safety reasons unsuitable extinguishing agents**
Alcohol-resistant foam.
Carbon dioxide
- **5.2 Special hazards arising from the substance or mixture:**
Can form explosive dust-air mixtures.
Formation of dangerous vapours is possible in case of fire.
In case of fire, the following can be formed, but not limited to:
Nitrogen oxides (NOx)
azides
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
Collect contaminated fire fighting agent separately. It must not enter the sewage system.
Dispose of fire debris and contaminated fire fighting media in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Avoid formation of dust.
Wear protective clothing.
Wear respiratory protection.
- **6.2 Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up**
Dispose contaminated material as waste according to item 13.
Pick up mechanically.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling:** Avoid contact with eyes and skin.
- **Information about protection against explosions and fires:**
Dust can combine with air to form an explosive mixture.
Keep ignition sources away - Do not smoke.

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- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:**
Store away from oxidising agents.
Do not store together with acids.
- **Further information about storage conditions:**
Store under lock and key and with access restricted to technical experts or their assistants only.
Keep receptacle tightly sealed and store in dry conditions.
- **7.3 Specific end use(s):** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Components with limit values that require monitoring at the workplace:**

26628-22-8 sodium azide (80-100%)

WEL	Short-term value: 0.3 mg/m ³ Long-term value: 0.1 mg/m ³ (as NaN ₃), Sk
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· **DNELs**

workers: long term exposure-systemic effects, inhalative: 0,493 mg/m³
Worker: Long term exposition - systemic effects, dermal: 140 µg/kg

· **PNECs**

PNEC fresh water: 0,35 µg/l
PNEC marine water: 15 ng/l
PNEC fresh water sediment: 16,7 µg/kg
PNEC marine water sediment: 0,72 µg/kg
PNEC microorganisms in Sewage Treatment Plants (STP's): 30 µg/l

· **Additional information:** The lists that were valid during the creation were used as basis.

· **8.2 Exposure controls**

· **Appropriate engineering controls:** No further data; see item 7.

· **Individual protection measures, such as personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Store protective clothing separately.
Immediately remove all soiled and contaminated clothing
Avoid contact with the eyes and skin.
Wash hands before breaks and at the end of work.

· **Breathing equipment:**

Short term filter device:
Filter P3.

· **Hand protection:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Protective gloves.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
 - Chloroprene rubber, CR
 - Nitrile rubber, NBR
- **Eye/face protection:** Safety glasses
- **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information:

- | | |
|--|---|
| · Physical state: | Solid. |
| · Colour: | White |
| · Odour: | Odourless |
| · Odour threshold: | Not determined. |
| · Melting point/freezing point: | not applicable (decomposition) |
| · Boiling point or initial boiling point and boiling range: | not applicable (decomposition) |
| · Flammability: | this substance is combustible but not highly flammable. |
| · Lower and upper explosion limit: | |
| · Lower: | no information available |
| · Upper: | no information available |
| · Flash point: | no information available |
| · Ignition temperature: | no information available |
| · Decomposition temperature: | 370-425 °C |
| · pH: | >10 |
| · Viscosity: | |
| · Kinematic viscosity: | Not applicable. |
| · Dynamic viscosity: | Not applicable. |
| · Solubility: | |
| · Water: | Soluble |
| · Partition coefficient n-octanol/water (log value): | no information available |
| · Vapour pressure: | no information available |
| · Density and/or relative density: | |
| · Density at 20 °C: | 1.846 g/cm ³ |
| · Relative density: | no information available |
| · Particle characteristics | No information available |

9.2 Other information

- | | |
|--|--|
| · Appearance: | |
| · Form: | Crystalline |
| · Important information on protection of health and environment, and on safety: | |
| · Explosive properties: | Product is not explosive. However, formation of explosive dust-/air mixtures are possible. |
| · Molecular weight | 65 g/mol |

SECTION 10: Stability and reactivity

- **10.1 Reactivity:** No further relevant information available.
- **10.2 Chemical stability:**
- **Thermal decomposition / conditions to be avoided:**
 - No decomposition if used and stored according to specifications.
 - Decomposes before melting.
 - Auto-catalytic thermal decomposition

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- **10.3 Possibility of hazardous reactions:**
formation of explosive gases in contact with acids.
At high temperatures vapours and decomposition gases can be formed. The container may burst because of rised pressure.
- **10.4 Conditions to avoid:**
Avoid high temperatures, flames, sparks
moisture
- **10.5 Incompatible materials:**
Avoid contact with:
heavy metals
carbon disulfide
hydrogen halide
Water
nitrites
Acids
- **10.6 Hazardous decomposition products:** In case of fire: See Section 5

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:**
- **Acute toxicity:** Fatal if swallowed, in contact with skin or if inhaled.

· **LD/LC50 values that are relevant for classification:**

Oral	LD50	27 mg/kg (rat)
Dermal	LD50	18-60 mg/kg (rabbit)
Inhalative	LC50/4h	0.054-0.52 mg/l (rat)

- **Skin corrosion/irritation:** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation:** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** 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.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards:**
- **Endocrine disrupting properties:** no relevant information available

SECTION 12: Ecological information

- **12.1 Toxicity:**
- **Aquatic toxicity:**
LC50/96h (*Lepomis macrochirus*): 0,68 mg/l
Toxicity to algae: ErC50/96h (*Pseudokirchneriella subcapitata*, OECD 201) = 0,348 mg/l
Toxicity to bacteria EC₅₀ (activated sludge): 5,6 mg/l

EC50/48h	0.4 mg/l (<i>Daphnia magna</i>)
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- **12.2 Persistence and degradability:**
Biodegradation: test methods are not applicable to anorganic substances.
- **12.3 Bioaccumulative potential:** No further relevant information available.
- **12.4 Mobility in soil:** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment:**
- **PBT:** PBT - assessment not available.
- **vPvB:** vPvB - assessment not available.
- **12.6 Endocrine disrupting properties:** For information on endocrine disrupting properties see section 11.

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- **12.7 Other adverse effects:**
- **Remark:**
Very toxic to aquatic life with long lasting effects.
LC 50 / 96 h (*Salmo gaidneri*): 0.8 mg / l
- **Additional ecological information:**
- **General notes:**
Do not allow product to reach ground water, water course or sewage system.
Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Disposal must be made according to official regulations.
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:**
Disposal of uncleaned packagings must be made according to official regulations in the same manner as the product.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

SECTION 14: Transport information

- | | |
|---|---|
| <ul style="list-style-type: none"> · 14.1 UN number or ID number · ADR, IMDG, IATA | <p align="center">UN1687</p> |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · IMDG, IATA | <p align="center">1687 SODIUM AZIDE, ENVIRONMENTALLY
HAZARDOUS
SODIUM AZIDE</p> |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <ul style="list-style-type: none"> · Class: · Label: | <p align="center">6.1 Toxic substances.
6.1</p> |
| <ul style="list-style-type: none"> · IMDG, IATA <div style="display: flex; justify-content: center; align-items: center;">  </div> <ul style="list-style-type: none"> · Class · Label | <p align="center">6.1 Toxic substances.
6.1</p> |
| <ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA | <p align="center">II</p> |
| <ul style="list-style-type: none"> · 14.5 Environmental hazards · Marine pollutant: · Special marking (ADR): | <p align="center">Environmentally hazardous substance, solid
Yes
Symbol (fish and tree)</p> |
| <ul style="list-style-type: none"> · 14.6 Special precautions for user | <p align="center">Warning: Toxic substances.</p> |

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· Hazard identification number (Kemler code):	-
· EMS Number:	F-A,S-A
· Segregation groups	(SGG17) Azides
· Stowage Category	A
· Segregation Code	SG15 Stow "separated from" class 3 SG30 Stow "away from" SGG7-heavy metals and their salts SG35 Stow "separated from" SGG1-acids
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	500 g
· Excepted quantities (EQ)	Code: E4 Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 500 g
· Transport category	2
· Tunnel restriction code	E
· IMDG	
· Limited quantities (LQ)	500 g
· Excepted quantities (EQ)	Code: E4 Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 500 g
· UN "Model Regulation":	UN 1687 SODIUM AZIDE, 6.1, II, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **Seveso category**
H1 ACUTE TOXIC
E1 Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 20 t
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
Substance is not listed.
- **REGULATION (EU) 2019/1148**
- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**
Substance is not listed.
- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS** Substance is not listed.
- **Regulation (EC) No 273/2004 on drug precursors** Substance is not listed.
- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**
Substance is not listed.
- **National regulations:**
- **Water hazard class:** Water hazard class 2 (Assessment by list): hazardous for water.

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· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Product safety department

· **Contact:** +49 6221 13840-35

· **Date of previous version:** 18.10.2018

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

PBT: persistent, bioaccumulative, toxic substance (UK REACH)

vPvB: very persistent, very bioaccumulative substance (UK REACH)

UK REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

GB CLP: Regulation on classification, labelling and packaging of substances and mixtures

bw: body weight

ADR: Accord relatif au transport international 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 Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (UK REACH)

PNEC: Predicted No-Effect Concentration (UK REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 2: Acute toxicity – Category 2

Acute Tox. 1: Acute toxicity – Category 1

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

GB