

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/07/2023

Reviewed on 06/07/2023

## 1 Identification

- **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
- **Application of the substance / the mixture:** Laboratory chemicals
- **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
- **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)



## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS06

Acute Toxicity - Oral 2

H300 Fatal if swallowed.

Acute Toxicity - Dermal 1

H310 Fatal in contact with skin.

Acute Toxicity - Inhalation 2

H330 Fatal if inhaled.



GHS08

Specific Target Organ Toxicity - Repeated Exposure 2 H373 May cause damage to organs through prolonged or repeated exposure.

- **Label elements**
- **GHS label elements**  
The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:** GHS06, GHS08
- **Signal word:** Danger
- **Hazard statements:**  
Fatal if swallowed, in contact with skin or if inhaled.  
May cause damage to organs through prolonged or repeated exposure.
- **Precautionary statements**  
Wash thoroughly after handling.  
Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection/face protection.

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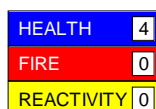
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*If swallowed: Immediately call a poison center/doctor.**If on skin: Wash with plenty of soap and water.**IF INHALED: Remove person to fresh air and keep comfortable for breathing.*· **Classification system:**· **NFPA ratings (scale 0 - 4)**

Health = 4

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = 4

Fire = 0

Reactivity = 0

· **Other hazards**· **Results of PBT and vPvB assessment:**· **PBT:** PBT - assessment not available.· **vPvB:** vPvB - assessment not available.

## 3 Composition/information on ingredients

· **Chemical characterization: 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  $\text{Na N}_3$ · **MW:** 65.0

## 4 First-aid measures

· **Description of first aid measures**· **General information:***In case of irregular breathing or respiratory arrest provide artificial respiration.**Immediately remove any clothing soiled by the product.*· **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.*· **After swallowing:***Wash out mouth. Call a doctor immediately.**Do not induce vomiting!*· **Most important symptoms and effects, both acute and delayed**

Headache

Dizziness

· **Indication of any immediate medical attention and special treatment needed***No further relevant information available.*

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## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
Dry chemical  
Dry sand
- **For safety reasons unsuitable extinguishing agents:**  
Alcohol-resistant foam  
Carbon dioxide
- **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 released:  
Nitrogen oxides (NOx)  
azides
- **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.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Ensure adequate ventilation  
Avoid formation of dust.  
Wear protective clothing.  
Wear respiratory protection.
- **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.
- **Methods and material for containment and cleaning up**  
Dispose contaminated material as waste according to item 13.  
Pick up mechanically.
- **Protective Action Criteria for Chemicals**
- **PAC-1:** 0.026 mg/m<sup>3</sup>
- **PAC-2:** 0.29 mg/m<sup>3</sup>
- **PAC-3:** 5.3 mg/m<sup>3</sup>
- **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.

## 7 Handling and storage

- **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.
- **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 oxidizing agents.  
Do not store together with acids.

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- **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.
- **Specific end use(s):** No further relevant information available.

## 8 Exposure controls/personal protection

### · Control parameters

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

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

REL	Ceiling limit value: 0.3** mg/m <sup>3</sup> , 0.1* ppm *as HN <sub>3</sub> ; **as NaN <sub>3</sub> ; Skin
TLV	Ceiling limit value: 0.29** mg/m <sup>3</sup> , 0.11* ppm *as HN <sub>3</sub> vapor **as NaN <sub>3</sub> , A4

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Additional information about design of technical systems:** No further data; see item 7.
- **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
- **Protection of hands:**  
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.
- **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 protection:** Safety glasses
- **Body protection:** Protective work clothing

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information:**
- **Color:** White
- **Odor:** Odorless

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· <b>Odor threshold:</b>	Not determined.
· <b>Melting point/Melting range:</b>	not applicable (decomposition)
· <b>Boiling point/Boiling range:</b>	not applicable (decomposition)
· <b>Flammability (solid, gaseous):</b>	this substance is combustible but not highly flammable.
· <b>Explosion limits:</b>	
· <b>Lower:</b>	no information available
· <b>Upper:</b>	no information available
· <b>Flash point:</b>	no information available
· <b>Ignition temperature:</b>	no information available
· <b>Decomposition temperature:</b>	370-425 °C (698-797 °F)
· <b>pH-value:</b>	>10
· <b>Viscosity:</b>	
· <b>Kinematic viscosity:</b>	Not applicable.
· <b>Dynamic viscosity:</b>	Not applicable.
· <b>Solubility in / Miscibility with:</b>	
· <b>Water:</b>	Soluble.
· <b>Partition coefficient (n-octanol/water):</b>	no information available
· <b>Vapor pressure:</b>	no information available
· <b>Density at 20 °C (68 °F):</b>	1.846 g/cm <sup>3</sup> (15.40487 lbs/gal)
· <b>Relative density:</b>	no information available
· <b>Other information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Crystalline
· <b>Important information on protection of health and environment, and on safety:</b>	
· <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive dust-/air mixtures are possible.
· <b>Molecular weight</b>	65 g/mol

## 10 Stability and reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.  
Decomposes before melting.  
Auto-catalytic thermal decomposition.
- **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 risen pressure.
- **Conditions to avoid:**  
Avoid high temperatures, flames, sparks  
moisture
- **Incompatible materials:**  
Avoid contact with:  
heavy metals  
carbon disulfide  
hydrogen halide  
Water  
nitrites  
Acids

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- **Hazardous decomposition products:**

In case of fire: See Section 5

HN3

In case of contact with heavy metals or heavy metal compounds the formation of potentially explosive azides is possible.

## 11 Toxicological information

- **Information on toxicological effects**

- **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)

- **Specific target organ toxicity - repeated exposure:**

May cause damage to organs through prolonged or repeated exposure.

- **Additional toxicological information:**

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)** Substance is not listed.

- **NTP (National Toxicology Program)** Substance is not listed.

- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

## 12 Ecological information

- **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 EC<sub>50</sub> (activated sludge): 5,6 mg/l

EC50/48h	0.4 mg/l ( <i>Daphnia magna</i> )
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- **Persistence and degradability:** Biodegradation: test methods are not applicable to anorganic substances.

- **Bioaccumulative potential:** No further relevant information available.

- **Mobility in soil:** No further relevant information available.

- **Results of PBT and vPvB assessment:**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **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 (Assessment by list): hazardous for water

## 13 Disposal considerations

- **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.

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- **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.

## 14 Transport information

· <b>UN-Number</b>	
· <b>DOT, ADR, IMDG, IATA</b>	UN1687
· <b>UN proper shipping name</b>	Sodium azide
· <b>DOT</b>	1687 SODIUM AZIDE, ENVIRONMENTALLY HAZARDOUS
· <b>ADR</b>	SODIUM AZIDE
· <b>IMDG, IATA</b>	
· <b>Transport hazard class(es)</b>	
· <b>DOT</b>	
	
· <b>Class</b>	6.1 Toxic substances
· <b>Label</b>	6.1
· <b>ADR</b>	
	
· <b>Class:</b>	6.1 Toxic substances
· <b>Label:</b>	6.1
· <b>IMDG, IATA</b>	
	
· <b>Class</b>	6.1 Toxic substances
· <b>Label</b>	6.1
· <b>Packing group</b>	
· <b>DOT, ADR, IMDG, IATA</b>	II
· <b>Environmental hazards</b>	Environmentally hazardous substance, solid
· <b>Marine pollutant:</b>	Yes
· <b>Special marking (ADR):</b>	Symbol (fish and tree)
· <b>Special precautions for user</b>	Warning: Toxic substances
· <b>Hazard identification number (Kemler code):</b>	-
· <b>EMS Number:</b>	F-A,S-A
· <b>Segregation groups</b>	(SGG17) Azides
· <b>Stowage Category</b>	A

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· <b>Segregation Code</b>	SG15 Stow "separated from" class 3 SG30 Stow "away from" SGG7-heavy metals and their salts SG35 Stow "separated from" SGG1-acids
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b> · <b>Excepted quantities (EQ)</b>	Code: E4 Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 500 g
· <b>IMDG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	500 g Code: E4 Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 500 g
· <b>UN "Model Regulation":</b>	UN 1687 SODIUM AZIDE, 6.1, II, ENVIRONMENTALLY HAZARDOUS

## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No further relevant information available.
- **Section 355 (extremely hazardous substances):** Substance is listed.
- **Section 313 (Specific toxic chemical listings):** Substance is listed.
- **TSCA (Toxic Substances Control Act):** ACTIVE
- **Hazardous Air Pollutants** Substance is not listed.
- **Proposition 65** Substance is not listed.
- **Chemicals known to cause cancer:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
- **Chemicals known to cause developmental toxicity:** Substance is not listed.
- **Carcinogen categories**
- **EPA (Environmental Protection Agency)** Substance is not listed.
- **TLV (Threshold Limit Value)** A4
- **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.
- **GHS label elements**  
The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** GHS06, GHS08
- **Signal word** Danger
- **Hazard statements**  
Fatal if swallowed, in contact with skin or if inhaled.  
May cause damage to organs through prolonged or repeated exposure.
- **Precautionary statements**  
Wash thoroughly after handling.  
Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection/face protection.  
If swallowed: Immediately call a poison center/doctor.  
If on skin: Wash with plenty of soap and water.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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### 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 preparation / last revision** 06/07/2023

· **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 (REACH)

vPvB: very persistent, very bioaccumulative substance (REACH)

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

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

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Toxicity - Oral 2: Acute toxicity – Category 2

Acute Toxicity - Dermal 1: Acute toxicity – Category 1

Specific Target Organ Toxicity - Repeated Exposure 2: Specific target organ toxicity (repeated exposure) – Category 2

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