Material Safety Data Sheet

Section 1: Product and Company Identification			
Product Name	Sodium Azide		
Catalogue Number:	ASC-1028		
E-mail:	Sales@ausamics.com	**Website**:	Ausamics.com

Section 2: Hazards Identification	
Classification of the substance or mixture Acute toxicity, (Category 2) H300: Fatal if swallowed. Acute toxicity, (Category 2) H330: Fatal if inhaled. Acute toxicity, (Category 1) H310: Fatal in contact with skin. Specific target organ toxicity - H373: May cause damage to organs repeated exposure, (Category 2), Brain: through prolonged or repeated exposure if swallowed. Short-term (acute) aquatic hazard, (Category 1) H400: Very toxic to aquatic life. Long-term (chronic) aquatic hazard, (Category 1) H410: Very toxic to aquatic life with long lasting effects.	
Label elements **Labelling according to Regulation (EC) No 1272/2008**	
Pictogram	
Signal Word	Danger
Hazard Statements H300 + H310 + H330 Fatal if swallowed, in contact with skin or if inhaled. H373 May cause damage to organs (Brain) through prolonged or repeated exposure if swallowed. H410 Very toxic to aquatic life with long lasting effects.	
Precautionary Statements P262 Do not get in eyes, on skin, or on clothing. P264 Wash skin thoroughly after handling. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing. P302 + P352 + P310 IF ON SKIN: Wash with plenty of water. Immediately call a POISON CENTER/ doctor. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. Supplemental Hazard information (EU) EUH032 Contact with acids liberates very toxic gas.	
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.	

Sodium Azide may react with lead and copper plumbing to form highly explosive metal azides., Rapidly absorbed through skin.

Section 3: Composition / Information on Ingredients			
Mixture			
Formula Molecular weight CAS-No. EC-No. Index-No.		N3Na 65,01 g/mol 26628-22-8 247-852-1 011-004-00-7	
Component		Classification	Concentration
Sodium azide			
CAS-No. EC-No. Index-No.	26628-22-8 247-852-1 011-004-00-7	Acute Tox. 2; Acute Tox. 1; STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1; H300, H330, H310, H373, H400, H410 M-Factor - Aquatic Acute: 1 M-Factor – Aquatic Chronic: 1	<= 100 %

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. Remove contact lenses.
If swallowed	If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.
Most important symptoms and effects, both acute and delayed The most important known symptoms and effects are described in the labelling (see section 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 Sand Special powder against metal fire Cement.
Unsuitable extinguishing media Foam Water
Special hazards arising from the substance or mixture Sodium oxides

Combustible. Development of hazardous combustion gases or vapors possible in the event of fire.
Advice for firefighters Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
Further information Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Section 6: Accidental Release Measures
Personal precautions, protective equipment and emergency procedures Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
Environmental precautions Do not let product enter drains.
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. Dispose of properly. Clean up affected area. Avoid generation of dust.
Reference to other sections For disposal see section 13.

Section 7: Handling and Storage	
Precautions for safe handling	
Advice on safe handling Work under hood. Do not inhale substance/mixture.	
Hygiene measures Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.	
Conditions for safe storage, including any incompatibilities	
Storage conditions	Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons. Do not store near acids.
Storage class	Storage class (TRGS 510): 6.1A: Combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials.

Section 8: Exposure Controls / Personal Protection
Control parameters **Ingredients with workplace control parameters**
Exposure controls
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 Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm

Break through time: 480 min Material tested: KCL 741 Dermatril® L Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested: KCL 741 Dermatril® L
Body Protection protective clothing
Respiratory protection required when dust is 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. Recommended Filter type: Filter type P3 The entrepeneur must ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures must be properly documented.
Control of environmental exposure Do not let product enter drains.

Section 9: Physical and Chemical Properties	
Physical state	Crystalline
Color	White
Odor	Odorless
Melting point/freezing point	Melting point/range: 370 - 425 °C - ASTM E 537-76 - Decomposition
Initial boiling point and boiling range	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Flash point	No data available
Vapor pressure	No data available
Autoignition temperature	309 °C at 1.013 hPa - Relative self-ignition temperature for solids.
Decomposition temperature	370 - 425 °C Decomposition energy (mass): 0,8 kJ/kg
pH	10 at 65 g/l at 25 °C
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Water solubility	65 g/l at 20 °C - completely soluble
Partition coefficient: n-octanol/water	Not applicable for inorganic substances
Density	1,850 g/cm3 at 20 °C
Relative density	No data available
Relative vapor density	No data available
Particle characteristics	No data available

Explosive properties	Not classified as explosive.
Oxidizing properties	none
Other safety information	No data available

Section 10: Stability and Reactivity
Reactivity highly reactive Risk of dust explosion. The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed. Contact with acids liberates very toxic gas.
Chemical stability The product is chemically stable under standard ambient conditions (room temperature).
Possibility of hazardous reactions A risk of explosion and/or of toxic gas formation exists with the following substances: Heavy metals Bromine dimethylsulfate Acid dichloromethane carbon disulfide sulfuric acid Halogenated hydrocarbon Copper Lead chromyl chloride Generates dangerous gases or fumes in contact with: Acids Water with Heat. Violent reactions possible with: nitrates benzoyl chloride Generates dangerous gases or fumes in contact with: Acids
Conditions to avoid An explosion occurred when a mixture of sodium azide, methylene chloride, dimethyl sulfoxide, and sulfuric acid were being concentrated on a rotary evaporator. Strong heating (decomposition). Exposure to moisture.
Incompatible materials Aluminum, Heavy metals
Hazardous decomposition products In the event of fire: see section 5.

Section 11: Toxicological Information	
Information on toxicological effects	
Mixture	
Acute toxicity	LD50 Oral - Rat - 27 mg/kg Remarks: (RTECS)

	LC50 Inhalation - Rat - male and female - 4 h - 0,054 - 0,52 mg/l - dust/mist (US-EPA) LD50 Dermal - Rabbit - 20 mg/kg Remarks: (RTECS)
Skin corrosion/irritation	Skin - In vitro study Result: No skin irritation (OECD Test Guideline 439)
Serious eye damage/eye irritation	Eyes - Bovine cornea Result: No eye irritation - 4 h (OECD Test Guideline 437)
Respiratory or skin sensitization	Local lymph node assay (LLNA) - Mouse Result: negative (OECD Test Guideline 429)
Germ cell mutagenicity	Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative Test Type: unscheduled DNA synthesis assay Test system: Chinese hamster lung cells Metabolic activation: without metabolic activation Method: OECD Test Guideline 482 Result: negative Test Type: sister chromatid exchange assay Test system: Chinese hamster ovary cells Metabolic activation: without metabolic activation Method: OECD Test Guideline 479 Result: negative
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Specific target organ toxicity - repeated exposure	Oral - May cause damage to organs through prolonged or repeated exposure. - Brain
Aspiration hazard	No data available
Additional Information	
Endocrine disrupting properties **Product:** Assessment	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.
RTECS: VY8050000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Nausea, Headache, Vomiting, Laboratory experiments in animals have shown sodium azide to produce a profound hypotensive effect, demyelination of myelinated nerve fibers in the central nervous system, testicular damage, blindness, attacks of rigidity, and hepatic and cerebral effects., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.	

Section 12: Ecological Information	
Toxicity	
Toxicity to fish	flow-through test LC50 - Oncorhynchus mykiss (rainbow trout) - 2,75 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to algae	static test ErC50 - Pseudokirchneriella subcapitata - 0,35 mg/l - 96 h (OECD Test Guideline 201)
Persistence and degradability	The methods for determining the biological degradability are not applicable to inorganic substances.
Bioaccumulative potential	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 and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Endocrine disrupting properties **Product:** Assessment	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 Consideration
Waste treatment methods **Product** Offer surplus and non- recyclable solutions to a licensed company. Contact a licensed professional waste disposal service to dispose of this material
Contaminated packaging Dispose of as unused product.

Section 14: Transport Information	
UN number	ADR/RID: 1687 IMDG: 1687 IATA: 1687
UN proper shipping name	ADR/RID: SODIUM AZIDE IMDG: SODIUM AZIDE IATA: Sodium azide
Transport hazard class(es)	ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1
Packaging group	ADR/RID: II IMDG: II IATA: II
Environmental hazards	ADR/RID: yes IMDG Marine pollutant: yes IATA: no
Special precautions for user	Tunnel restriction code: (E)
Further information	No data available

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.

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 substances.	H1 ACUTE TOXIC
	E1 ENVIRONMENTAL HAZARDS
Other regulations Observe work restrictions regarding maternity protection in accordance with Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work.	
Chemical Safety Assessment For this product a chemical safety assessment was not carried out.	

Section 16: Additional Notes	
Documented By	Ausamics Life Science Sales@Ausamics.com
Revision date	June 11, 2024
Summary of Revisions	This document has been revised to meet the requirements of the US OSHA HazCom 2012 Standard, which supersedes the existing regulations outlined in 29 CFR 1910.1200, in order to align with the internationally recognized globally Harmonized System of Classification and Labeling of chemicals (GHS).
Disclaimer	The information presented in this Safety Data sheet is accurate to the best of our knowledge, information, and belief at the time of publication. It is intended as a guide for the safe handling, use, processing, storage, transportation, disposal, and release of specific materials. However, it should be interpreted as a warranty or quality specification. The provided information pertains solely to the designated material and may not be applicable to its use in combination with other materials or in any process, unless explicitly stated in the text.