

SODIUM AZIDE

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Date of issue: 10/30/2000 Revision date: 2/13/2019 Supersedes: 1/31/2019 Version: 3.3

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

1.1. Product identifier

Product form : Substance
 Substance name : SODIUM AZIDE
 Chemical name : sodium azide
 EC Index-No. : 011-004-00-7
 EC-No. : 247-852-1
 CAS-No. : 26628-22-8
 REACH registration No : 01-2119457019-37
 Product code : 31803515
 Formula : N3Na

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial
 For professional use only
 Laboratory chemicals

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Scafell Organics
 Molekula Ltd
 Lingfield Way
 Darlington - England
 T +44 (0) 1949 823777 / +44 (0) 7590 545705
info@molekula.com / kbowen@molekula.com - www.molekula.com

1.4. Emergency telephone number

Emergency number : +44 (0) 7590 545705

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 2 H300
 Hazardous to the aquatic environment — Acute Hazard, Category 1 H400
 Hazardous to the aquatic environment — Chronic Hazard, Category 1 H410
 Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS06

GHS09

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H300 - Fatal if swallowed.
 H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) :

P223 - Do not allow contact with water.
 P250 - Do not subject to grinding/shock/friction.
 P260 - Do not breathe dust, fume.
 P262 - Do not get in eyes, on skin, or on clothing.
 P273 - Avoid release to the environment.
 P280 - Wear protective clothing, eye protection, face protection.
 P301+P310 - IF SWALLOWED: Immediately call a doctor, a POISON CENTER.
 P302+P352 - IF ON SKIN: Wash with plenty of water.

EUH-statements :

EUH032 - Contact with acids liberates very toxic gas.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

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SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%
SODIUM AZIDE	(CAS-No.) 26628-22-8 (EC-No.) 247-852-1 (EC Index-No.) 011-004-00-7 (REACH-no) 01-2119457019-37	100

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If possible show this sheet, if not available show packaging or label. Do not leave affected person unattended.

First-aid measures after inhalation : If not breathing, give artificial respiration. Remove person to fresh air and keep comfortable for breathing. Get immediate medical advice/attention.

First-aid measures after skin contact : Take off immediately all contaminated clothing and wash it before reuse. Do not remove clothing if it sticks to the skin. Wash skin with plenty of water. Obtain medical attention.

First-aid measures after eye contact : Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects : Fatal if swallowed.

Symptoms/effects after inhalation : Inhalation may cause irritation (cough, short breathing, difficulty in breathing).

Symptoms/effects after skin contact : irritation (itching, redness, blistering).

Symptoms/effects after eye contact : redness, itching, tears. stinging.

Symptoms/effects after ingestion : Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Swallowing a small quantity of this material will result in serious health hazard. Loss of consciousness. Ingestion may cause nausea, vomiting and diarrhea.

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

Get immediate medical advice/attention.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Sand.

Unsuitable extinguishing media : Water.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Fire could produce a combination of irritating and toxic gases.

Explosion hazard : Risk of explosion by shock, friction, fire or other sources of ignition.

Hazardous decomposition products in case of fire : Nitrogen oxides.

5.3. Advice for firefighters

Precautionary measures fire : Exposure to fire/heat: seal off low-lying areas. Keep container tightly closed and away from heat, sparks and flame.

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment. Use extinguishing agent suitable for surrounding fire.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Other information : Warn all persons of toxic hazard.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Isolate from fire, if possible, without unnecessary risk. No flames, no sparks. Eliminate all sources of ignition. Avoid dust formation.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Evacuate unnecessary personnel. Mark out the contaminated area with signs and prevent access to unauthorized personnel. Avoid contact with skin, eyes and clothing. Do not breathe dust. Do not touch or walk on the spilled product.

Measures in case of dust release : Keep upwind. Ventilate the area thoroughly, especially low lying areas (basements, workpits etc).

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6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection. Use self-contained breathing apparatus and chemically protective clothing.
- Emergency procedures : Ventilate area. Stop leak if safe to do so.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimise generation of dust. Store away from other materials.
- Other information : Use special care to avoid static electric charges.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Shock sensitivity. Do not allow contact with water.
- Precautions for safe handling : Avoid contact with skin and eyes. Product to be handled in a closed system. Avoid dust formation. Do not use : Metals. Ensure that there is a suitable ventilation system. Do not handle in a confined space.
- Hygiene measures : Do not eat, drink or smoke when using this product. Take off immediately all contaminated clothing and wash it before reuse. Always wash hands after handling the product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Closed system, ventilation.
- Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Direct sunlight, Heat sources. Keep container closed when not in use.
- Incompatible products : Acid chlorides. Oxidising agents. Acids. Powdered metals.
- Incompatible materials : Sources of ignition. Direct sunlight. Do not allow contact with water. Water, humidity.
- Storage area : Store at ambient temperature. Store in dry protected location to prevent any moisture contact.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

SODIUM AZIDE (26628-22-8)		
EU	IOELV TWA (mg/m ³)	0.1 mg/m ³
EU	IOELV STEL (mg/m ³)	0.3 mg/m ³
United Kingdom	Local name	Sodium azide
United Kingdom	WEL TWA (mg/m ³)	0.1 mg/m ³ (as NaN ₃)
United Kingdom	WEL STEL (mg/m ³)	0.3 mg/m ³ (as NaN ₃)
United Kingdom	Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
United Kingdom	Regulatory reference	EH40/2005 (Third edition, 2018). HSE

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DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	46.7 µg/kg dw
Long-term - systemic effects, inhalation	164 µg/m ³

DNEL/DMEL (General population)

Long-term - systemic effects, oral	16.7 µg/kg bodyweight/day
Long-term - systemic effects, inhalation	29 µg/m ³
Long-term - systemic effects, dermal	16.7 µg/kg dw

PNEC (Water)

PNEC aqua (freshwater)	0.35 µg/L
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SODIUM AZIDE (26628-22-8)	
PNEC aqua (marine water)	0.015 µg/L
PNEC aqua (intermittent, freshwater)	3.5 µg/L
PNEC aqua (intermittent, marine water)	0.15 µg/L
PNEC (Sediment)	
PNEC sediment (freshwater)	16.7 µg/kg dw
PNEC sediment (marine water)	0.72 µg/kg dw

8.2. Exposure controls

Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety procedures. Product to be handled in a closed system. Do not breathe dust.

Personal protective equipment:

Avoid all unnecessary exposure.

Materials for protective clothing:

Use chemically protective clothing

Hand protection:

Chemically resistant protective gloves. Always wash hands after handling the product. Hand protection : skin cream may be used

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
	Nitrile rubber (NBR)	6 (> 480 minutes)	0.11 mm minimum		EN 374

Eye protection:

Chemical goggles or safety glasses. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure

Type	Use	Characteristics	Standard
Safety goggles, Face shield	Dust	tightly fitting safety goggles, With side shields	EN 166

Skin and body protection:

Emergency safety showers should be available in the immediate vicinity of any potential exposure. Total impervious protective suits, gloves, and boots must be worn to prevent any contact with the product

Type	Standard
Total impervious protective suits, gloves, and boots must be worn to prevent any contact with the product	EN ISO 13982

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

Device	Filter type	Condition	Standard
Respiratory protective device with a particle filter	Type P3	Dust protection	EN 143

Environmental exposure controls:

Avoid creating or spreading dust.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline solid.
Molecular mass	: 65.01 g/mol
Colour	: white.
Odour	: No data available
Odour threshold	: No data available
pH	: 10 at 65g/l at 25.C
Relative evaporation rate (butylacetate=1)	: No data available

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Melting point	: 275 °C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: 309 °C at 1013hPa
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.85 g/cm ³ @20.C
Solubility	: Soluble. Water: 408 g/l at 20.C
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

Bulk density	: 0.8 kg/m ³
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SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Direct sunlight. High temperature. Protect from moisture. Water, humidity.

10.5. Incompatible materials

Oxidizing agent. Acids. Acid chlorides. Powdered metals.

10.6. Hazardous decomposition products

Nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Oral: Fatal if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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LD50 oral rat	27 mg/kg
LD50 oral	29 mg/kg

Skin corrosion/irritation	: Not classified pH: 10 at 65g/l at 25.C
Additional information	: Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified pH: 10 at 65g/l at 25.C
Additional information	: Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met

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STOT-single exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Fatal if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water	: Very toxic to aquatic life with long lasting effects.
Acute aquatic toxicity	: Very toxic to aquatic life.
Chronic aquatic toxicity	: Very toxic to aquatic life with long lasting effects.

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LC50 fish 1	2.75 - 3.28 mg/l 96h
EC50 other aquatic organisms 1	5 mg/l 48h

12.2. Persistence and degradability

SODIUM AZIDE (26628-22-8)

Persistence and degradability	No data available. May cause long-term adverse effects in the environment.
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12.3. Bioaccumulative potential

SODIUM AZIDE (26628-22-8)

Bioaccumulative potential	No bioaccumulation data available.
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

SODIUM AZIDE (26628-22-8)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

Additional information	: Avoid release to the environment.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations	: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Additional information	: Do not allow water (or moist air) contact with this material.
Ecology - waste materials	: Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
1687	1687	1687	1687	1687
14.2. UN proper shipping name				
SODIUM AZIDE	SODIUM AZIDE	Sodium azide	SODIUM AZIDE	SODIUM AZIDE
Transport document description				
UN 1687 SODIUM AZIDE, 6.1, II, (E), ENVIRONMENTALLY HAZARDOUS	UN 1687 SODIUM AZIDE, 6.1, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 1687 Sodium azide, 6.1, II, ENVIRONMENTALLY HAZARDOUS	UN 1687 SODIUM AZIDE, 6.1, II, ENVIRONMENTALLY HAZARDOUS	UN 1687 SODIUM AZIDE, 6.1, II, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)				
6.1	6.1	6.1	6.1	6.1

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14.4. Packing group

II

II

II

II

II

14.5. Environmental hazards

Dangerous for the environment : Yes

Dangerous for the environment : Yes
Marine pollutant : Yes

Dangerous for the environment : Yes

Dangerous for the environment : Yes

Dangerous for the environment : Yes

No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : T5
Limited quantities (ADR) : 500g
Excepted quantities (ADR) : E4
Packing instructions (ADR) : P002, IBC08
Special packing provisions (ADR) : B4
Mixed packing provisions (ADR) : MP10
Transport category (ADR) : 2
Special provisions for carriage - Packages (ADR) : V11
Special provisions for carriage - Loading, unloading and handling (ADR) : CV13, CV28
Special provisions for carriage - Operation (ADR) : S9, S19
Tunnel restriction code (ADR) : E
EAC code : 2X

Transport by sea

Packing instructions (IMDG) : P002
IBC packing instructions (IMDG) : IBC08
IBC special provisions (IMDG) : B21, B4
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-A
Stowage category (IMDG) : A
Segregation (IMDG) : SG15, SG30, SG35
Properties and observations (IMDG) : Colourless crystals. May react vigorously with acids to form hydrazoic acid, which is an explosive. May form extremely sensitive compounds with heavy metals or their salts. May explode if involved in a fire. Toxic if swallowed, by skin contact or by dust inhalation.

Air transport

PCA Excepted quantities (IATA) : E4
PCA Limited quantities (IATA) : Y644
PCA limited quantity max net quantity (IATA) : 1kg
PCA packing instructions (IATA) : 669
PCA max net quantity (IATA) : 25kg
CAO packing instructions (IATA) : 676
CAO max net quantity (IATA) : 100kg
ERG code (IATA) : 6L

Inland waterway transport

Classification code (ADN) : T5
Special provisions (ADN) : 802
Limited quantities (ADN) : 500 g
Excepted quantities (ADN) : E4
Equipment required (ADN) : PP, EP
Number of blue cones/lights (ADN) : 2

Rail transport

Classification code (RID) : T5
Excepted quantities (RID) : E4

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Packing instructions (RID)	: P002, IBC08
Special packing provisions (RID)	: B4
Mixed packing provisions (RID)	: MP10
Transport category (RID)	: 2
Special provisions for carriage – Packages (RID)	: W11
Special provisions for carriage - Loading, unloading and handling (RID)	: CW13, CW28, CW31
Colis express (express parcels) (RID)	: CE9
Hazard identification number (RID)	: 60

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

SODIUM AZIDE is not on the REACH Candidate List

SODIUM AZIDE is not on the REACH Annex XIV List

Directive 2012/18/EU (SEVESO III)

15.1.2. National regulations

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Subject to reporting requirements of United States SARA Section 313

Listed on the Canadian DSL (Domestic Substances List)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-statements:	
Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
H300	Fatal if swallowed.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH032	Contact with acids liberates very toxic gas.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product