

# Material Safety Data Sheet

## Section 1 Chemical Product and Company Identification

MSDS Name: 1% Sodium azide solution  
Product Code: 40-2000  
Synonyms: None  
Company identification: Severn Biotech Limited  
Unit 2 Park Lane Industrial Estate  
Kidderminster  
Worcestershire  
DY11 6TJ

For information call: +44 (0)1562 825286

## Section 2 - Composition, Information on Ingredients

CAS:	26628-22-8	CAS:	7732-18-5
Chemical Name:	Sodium azide	Chemical Name:	Water
%:	1%	%:	99%
EINECS:	247-852-1	EINECS:	231-791-2
Risk Phrases:	T+, N, R28 - R32 - R50/53	Risk Phrases:	None

## Section 3 - Hazards Identification

### EMERGENCY OVERVIEW

Harmful if swallowed. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### Potential Health Effects

Eye: Moderate eye irritant.  
Skin: Skin irritant. Sodium azide may be absorbed through the skin with systemic toxicity.  
Ingestion: Neurological toxin with hypotensive, visual, and acute cerebral effects.  
Inhalation: Respiratory tract and mucous membrane irritant, with symptoms similar to those by ingestion. Prolonged or repeated exposure to sodium azide solution aerosols may result in permanent neurological damage, collapse, or death.  
Chronic: DANGER!!! Effects of over exposure are headache, nausea, vomiting and severe damage to the retina and optic nerve of the eyes. POISONOUS!!! May be fatal if inhaled, swallowed or absorbed through the skin. May cause severe burns to skin, eyes and mucous membranes. May cause breathlessness and collapse from respiratory failure.

## Section 4 - First Aid Measures

Eye: Rinse thoroughly with plenty of water for at least 15 minutes, lifting lids occasionally, seek medical attention.  
Skin: Remove contaminated clothing. Wash exposed area with soap and water. If irritation persists, seek medical attention.  
Ingestion: If swallowed, induce vomiting immediately after giving two glasses of water. Never give anything by mouth to an unconscious person. Seek medical attention.  
Inhalation: If breathed in, move person into fresh air. If not breathing give artificial respiration. Seek medical attention.  
Chronic: Seek medical attention immediately and show this MSDS to the attending physician.

Notes to Physician: Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

General Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Fire: Not considered to be a fire hazard.

Explosion: Not considered to be an explosion hazard.

Extinguishing Media: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

## Section 6 - Accidental Release Measures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Do not let product enter drains. Discharge into the environment must be avoided. Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

## Section 7 - Handling and Storage

Avoid inhalation of vapour or mist. Normal measures for preventive fire protection. Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: 2 - 8 °C

## Section 8 - Exposure Controls, Personal Protection

Airborne Exposure Limits: None established.

Ventilation System: In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

Personal Respirators (NIOSH Approved): For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection: Wear protective gloves and clean body-covering clothing.

Eye Protection: Safety glasses. Maintain eye wash fountain and quick-drench facilities in work area.

## Section 9 - Physical and Chemical Properties

Physical State:	Liquid
Colour:	Colourless
Odour:	None
pH:	Not available
Vapour Pressure:	Not available
Vapour Density:	Not available
Evaporation Rate:	Not available
Viscosity:	Not available
Boiling Point:	104 to 107 deg C
Freezing/Melting Point:	-3 to -6 deg C
Decomposition Temperature:	Not available
Solubility in water:	Not available
Specific Gravity/Density:	Not available
Molecular Formula:	Not available
Molecular Weight:	Not available

## Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. If boiled to dryness, the remaining sodium azide residue may rapidly decompose.  
Conditions to Avoid: Incompatible materials, dust generation, temperature extremes.  
Incompatibilities with Other Materials: Heavy metals may form extremely explosive azides. Strong oxidizing agents, copper, lead, mercury  
Hazardous Decomposition Products: Nitrogen gas, sodium oxide fumes, oxides of carbon and nitrogen.  
Hazardous Polymerization will not occur.

## Section 11 - Toxicological Information

Chemical name: Sodium azide 100%  
CAS: 26628-22-8  
LD50/LC50: LD50, oral, rat: 27 mg/kg  
LD50, oral, mouse: 27 mg/kg  
LC50, inhalation, rat: 37 mg/m<sup>3</sup>  
LC50, inhalation, mouse: 32.4 mg/m<sup>3</sup>  
LD50, skin, rat: 50 mg/kg  
LD50, skin, rabbit: 20 mg/kg  
Sodium azide has been investigated as a Mutagen and Tumorigen  
Carcinogenicity:  
Other:

Chemical name: Water  
CAS: 7732-18-5  
LD50/LC50: None  
Carcinogenicity: Not a carcinogen  
Other:

## Section 12 - Ecological Information

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
Ecotoxicity: - calculated for a 2 % by weight aqueous sodium azide solution  
LC50 Rainbow Trout 0.04 - 0.08 ml product/l test water (96 H, 13 deg C)  
LC50, Bluegill/Sunfish 0.035 - 0.04 ml product/l test water (96 H, 18 deg C)  
Aquatic fate: Initially, photolysis of sodium azide will result in the formation of metallic nitrides with metals found in natural waters. These nitrides will decompose over time into nitrogen gas and free metals.

## Section 13 - Disposal Considerations

Products containing sodium azide may not be disposed to an industrial sewer system, and must be disposed in a manner consistent with national, state, and local regulations.

## Section 14 - Transport Information

Shipping Name: -  
Hazard Class: -  
UN Number: Not regulated  
Packing Group: -

## Section 15 - Regulatory Information

European/International Regulations  
European Labelling in Accordance with EC Directives

Hazard Symbols: T+, N  
Risk Phrases:  
R28 - R32 - R50/53  
Safety Phrases:  
S1/2, S28, S45

## **Section 16 - Other Information**

MSDS Creation Date: 15/05/2005  
Revision number: 1  
Revision Date: 30/06/09

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.