



Severn Biotech Ltd.

Sodium Azide Solutions NaN_3

Sodium Azide is a reactive ionic sodium salt and an inorganic compound used in a number of industries having various functions. It is both highly soluble in water and acutely poisonous. Its claim to fame is the nitrogen gas generating solid material used car airbags, which ignites in milli-seconds by electronic detonation to produce Nitrogen to inflate the emergency car air-bag.

The life science industry uses it in a completely different way, its primary use is as an anti-microbial for the storage of Biological materials such as antibodies and biological specimens. It's used in a secondary capacity as a constituent of a number of biological buffers to halt microbial growth and extend product longevity hence shelf life.

Sodium Azide strongly inhibits microbial growth, it is therefore a biocide and is especially important in bulk reagents and stock solutions which may otherwise support bacterial growth. Sodium azide acts in a bacteriostatic manner by inhibiting Cytochrome Oxidase in gram negative bacteria.

Generally this reactive salt is Highly toxic by inhalation, ingestion, or skin absorption. The acute toxicity of sodium azide is high. Symptoms of exposure include lowered blood pressure, headache, hypothermia, and in the case of serious overexposure, convulsions and death.

Threshold limit value (pure form): 300ug/m³ 0.5 mg sodium azide/ml (0.05%) of solution or reconstituted product. According to the OSHA Hazard Communications Standard (CFR 1910.1200), if a mixture contains less than 1% of a hazardous chemical or 0.1% of a carcinogen, the mixture shall not be considered hazardous.

Consequently handling Sodium Azide powder is considered hazardous, so in order to reduce this to a more manageable form of the salt **Severn Biotech make a number of aqueous Sodium Azide solutions for laboratory use.**

The solutions vary in concentrations from the 1% w/v non-hazardous form to 10% w/v a more hazardous aqueous format.

The concentrated Sodium Azide solutions are used as an additive to buffers and specimens normally at a concentration between 0.01-0.1% w/v Which deems them to be non-hazardous, when used in a diluted form.

They can also be used in Gel-filtration chromatography Affinity Chromatography, to preserve column integrity after use and storage between Purification runs.

For workers requiring to make-up Sodium Azide solutions themselves, we can supply Sodium Azide in a powder format, however, we will also manufacture specific formulations to order. All solutions are 0.2 micron filtered for clarification and made up with Ultra-pure Molecular Biology Grade Water to exacting standards and formulations.

Product Formulation	Product Code	Pack Size
1% w/v Sodium Azide Solution (Non Hazardous)	40-2000-01	100ml
8% w/v Sodium Azide Solution	40-2008-01	100ml
9.75% w/v Sodium Azide Solution (1.5M)	40-2001-01	100ml
10% w/v Sodium Azide Solution	40-2010-01	100ml
Sodium Azide Powder (>99.9% Purity)	40-1999-01	100g

1000ml Pack sizes are also available for the above solution POA

Larger pack sizes and formulations are available on request

Additionally Severn Biotech also make solutions containing the preservative Thiomersal (or thimerosal).

1% w/v Thiomersal	40-3000-01	100ml
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Thiomersal is a mercury containing compound used as a preservative in conjunction with Antibodies in immunotherapy techniques

For further information please contact Severn Biotech Sales team

All products are strictly for laboratory use only and not for resale to the public.

Severn Biotech Ltd is an ISO 9000-2015 Accredited Company



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