

SECTION 1: IDENTIFICATION OF THE MIXTURE/SUBSTANCE AND OF THE COMPANY/UNDERTAKING

1.1 Trade Name or Designation of the Mixture

Product name: NPS Reagent Kit
Types: PRK01
Contents: PBS Tablets
Wetting Solution Concentrate (contains <0.1% sodium azide)

1.2 Relevant Identified Uses Of The Substance Or Mixture And Uses Advised Against

Identified uses: R&D, Industrial & for Professional use only; for nanoparticle measurement.
Not for household or pharmaceutical use.

1.3 Details Of The Supplier Of The Safety Data Sheet

Company	Izon Science Ltd	
Address	2 Show Place	PO Box 9292
	Addington	Tower Junction
	Christchurch	Christchurch
	8024	8149
	New Zealand	New Zealand
Telephone:	+64 3 357 4270	
Email:	info@izon.com	
Website:	www.izon.com	

1.4 Emergency Telephone Number

Emergency Contact Number: 0800 764 766 (National Poison Centre, New Zealand)
In case of emergency call, local emergency services (e.g. 112 in the EU, 911 in the USA, 111 in New Zealand).

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification Of The Mixture

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

2.1.1 Wetting Solution Concentrate (Proprietary):

Acute Toxicity category 4. H302 Harmful if swallowed

The only hazards identified with this product are those associated with Sodium Azide, which is present at very low concentration < 0.1% w/v.

2.1.2 Phosphate Buffered Saline:

Physical, Health and Environmental Hazards: Not hazardous

2.2 Label Elements

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

2.2.1 Wetting Solution Concentrate (Proprietary):

Pictogram



Signal word

Warning

Hazard statement(s):

H300 + H312

Harmful if swallowed or in contact with skin

H332

Harmful if inhaled

Precautionary statement(s):

Prevention

P261

Avoid breathing dust/fume/gas/mist/vapors/spray

P262

Do not get in eyes, on skin, or on clothing

P264

Wash skin thoroughly after handling

P270

Do not eat, drink or smoke when using this product

P271

Use in a well-ventilated area

P280

Wear protective gloves/ protective clothing

Response

P304 + P340

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P301 + P310

IF SWALLOWED: Immediately call a POISON CENTER/doctor

P302 + P352

IF ON SKIN: Wash with plenty of water

P312

Call a POISON CENTER/doctor if you feel unwell

P322

Specific measures (see supplemental first aid instructions)

P362 + P364

Take off contaminated clothing and wash before reuse

Disposal

P501

Dispose of contents/ container to an approved waste disposal plant

2.2.2 Phosphate Buffered Saline (PBS):

NOT considered hazardous.

Hazard Pictograms, Single Word, Hazard Statements, EU Specific Hazard Statements and Precautionary Statements: Not applicable

2.3 Other Hazards

Wetting solution mixture contains no component considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Sodium Azide upon thermal decomposition may emit toxic gases, including nitrogen oxides. However, due to the composition and very low volume of this product, combustion products generated from it are not expected to present a significant hazard.

In respect to Phosphate Buffered Saline (PBS) tablet and Wetting Solution Concentrate (Proprietary) PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

N/A

3.2 Mixture

Hazardous ingredient according to Regulation (EC) No 1272/2008 [CLP]

3.2.1 Wetting Solution Concentrate

Component	Identification Number	Classification of pure substance	Concentration (%)
Sodium Azide	CAS No: 26628-22-8	Acute Tox. 2; Acute Tox.1; STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1; H300, H310. H373, H400, H410, M-Factor - Aquatic Acute: 1	< 0.1
	EC No: 247-852-1		
	Index No: 011-004-00-7		

3.2.2 Phosphate Buffered Saline:

No Hazardous Ingredients

SECTION 4: FIRST AID MEASURES

4.1 Description Of First Aid Measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and generous amounts of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most Important Symptoms And Effects, Both Acute And Delayed

If swallowed may produce nausea, headaches and vomiting.

Prolonged skin contact may cause redness and irritation.

Eye contact may cause severe irritation.

4.3 Indication Of Any Immediate Medical Attention And Special Treatment Needed:

There are no additional recommendations.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing Media

Suitable extinguishing media

Dry powder.

5.2 Special Hazards Arising From The Substance Or Mixture

Sodium Azide upon thermal decomposition may emit toxic gases, including nitrogen oxides and sodium oxides. However, due to the composition and volume of this product, combustion products generated from it are not expected to present a significant hazard.

5.3 Advice For Firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further Information

No data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment And Emergency Procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection, see section 8.

6.2 Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods And Materials For Containment And Cleaning Up

Pick up and arrange disposal without creating dust. Solutions containing sodium Azide may be absorbed using a paper towel or absorbent pad. Keep in suitable, closed containers for disposal.

6.4 Reference To Other Sections

For disposal, see Section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions For Safe Handling

Wash hands and other exposed areas with soft soap and water before eating, drinking, smoking and leaving work.

7.2 Conditions For Safe Storage, Including Any Incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Do not store near acids.

7.3 Specific End Use(s)

Apart from the uses mentioned in section 1.2, no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

International Limit Values for Sodium Azide (as NaN_3), CAS number 26628-22-8

Country	Limit Value – Eight hours	Limit value - short term
New Zealand/Australia	Ceiling 0.11 ppm (0.29 mg/m ³)	
European Union	0.1 mg/m ³	0.3 mg/m ³
United Kingdom	0.1 mg/m ³	0.3 mg/m ³
United States	Ceiling: 0.1 ppm as HN_3 (skin), 0.3 mg/m ³ as NaN_3 (skin)	

8.2 Exposure Controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

▶ Eye/face protection

Chemical safety glasses or goggles.

▶ Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

▶ Body Protection

Protective work clothing.

▶ Respiratory protection

None required if used in a laboratory with an adequate air exchange HVAC.

▶ Control of environmental exposure

Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Viscous, light yellow liquid, powder beige
Odour	Odourless
pH	7.4
Vapour pressure	No data
Viscosity	No data
Boiling point	No data
Volatile materials	No data
Freezing / melting point	No data
Solubility	Soluble in water
Specific gravity / density	1.22
Flash point	Non-flammable
Danger of explosion	No data
Auto-ignition temperature	No data
Upper & lower flammable limits	No data
Corrosiveness	Non-corrosive

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical Stability

Stable under recommended storage conditions.

10.3 Possibility Of Hazardous Reactions

No data available

10.4 Conditions To Avoid

Do not allow solutions containing Sodium Azide to concentrate. Avoid acidic pH conditions.

10.5 Incompatible Materials

Halogenated hydrocarbon, Metals, Acids, Acid chlorides, Hydrazine, Dimethyl sulfate, Inorganic acid Chlorides, Strong oxidising agents.

10.6 Hazardous Decomposition Products

Hazardous decomposition products formed under fire conditions. Sodium oxides, Carbon oxides, Oxides of phosphorus, Hydrogen chloride gas, Potassium oxides.

Other decomposition products

No data available

SECTION 11: TOXICOLOGICAL INFORMATION

Summary

IF SWALLOWED: large quantities may cause vomiting, diarrhoea, dehydration and congestion. Hypertonic salts (e.g. this mixture) can cause inflammation of the gastrointestinal tract.

Supporting Data

Acute	Oral	Using LD50's for ingredients, the calculated LD50 (oral, rat) for the mixture is >5,000 mg/kg
	Dermal	No evidence of dermal toxicity
	Inhaled	No evidence of inhalation toxicity
	Eye	The mixture is not considered to be an eye irritant
	Skin	The mixture is not considered to be a skin irritant
Chronic	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a carcinogen. No component is listed by IARC as a probable, possible or confirmed carcinogen
	Reproductive / Developmental Systemic	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation. No ingredient present at concentrations > 1% is considered a target organ toxicant
	Aggravation of Existing Conditions	None known

SECTION 12: ECOLOGICAL INFORMATION

Sodium Azide Component:

12.1 Toxicity

Toxicity to fish: mortality LC50 – Pimephales promelas (fathead minnow) – 5,46 mg/L – 96 h (OECD Test Guideline 203)

Toxicity to algae: static test EC50 – Pseudokirchneriella subcapitata – 0,35 mg/L – 96 h (OECD Test Guideline 201)

12.2 Persistence And Degradability

No data available

12.3 Bioaccumulative Potential

No data available

12.4 Mobility In Soil

No data available

12.5 Results Of PBT And vPvB Assessment

In respect to Sodium Azide, this mixture contains no component considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

In respect to Phosphate Buffered Saline (PBS) tablet, Wetting Solution Concentrate (Proprietary) and PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other Adverse Effects

Sodium Azide is very toxic to aquatic life with long lasting effects.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

SECTION 16: OTHER INFORMATION

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. IZON Science Ltd shall not be held liable for any damage resulting from handling or from contact with the above product. See www.izon.com for additional terms and conditions of sale.

The reader should refer to their individual country's relevant laws and regulations to identify any variant requirements to this (EC) No 1272/2008 [CLP] compliant SDS.