

Technogenetics S.r.l.

Material safety data sheet N. 840

Date: 2004-05-13	Product: Wash buffer
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Edition 1

1. PRODUCT AND COMPANY IDENTIFICATION:

Wash buffer

Component of the kit: IRMA C-PEP
Cat. No. 16099515

Manufactured by Technogenetics s.r.l.
S.S. Padana Superiore Km 160, n. 11
20060 Cassina de' Pecchi (Mi)

Emergency Response Telephone Number: 0039-02-26289284

2. COMPOSITION/INFORMATION ON INGREDIENTS :

Component concentration (w/w)

Sodium azide 0.2 %

2.1 synonyms: Azide, Azoturo di Sodio, Azoture de Sodium, Natrium azid

2.2 substance classification: very toxic (T+)

2.3 preparation classification: noxious(Xn) in the concentration range: 0.1 - 0.9 % w/w

2.4 Risk phrases for sodium azide as such:

R and S phrases referring to this preparation are listed at § 15.

R 28	Very toxic if swallowed
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R 32	Contact with acids liberates very toxic gas
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R 50	Very toxic for aquatic organisms
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R 53	May cause long term adverse effects in the aquatic environment
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2.5 Symbol for the preparation: noxious: S. Andrew's cross (Xn)

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3. IDENTIFICATION OF HAZARDS

3.1 Physical and chemical hazards:

Sodium azide reacts with cations of transition metals, producing explosive azides.

Do not dispose of the preparation through sewer pipes.

If treated with acid, at $\text{pH} \leq 4$, a sodium azide solution liberates very toxic gas.

3.2 Toxicological information:

Readily absorbed through skin.

Target organs: nerves, heart

See § 11.

4. FIRST AID MEASURES

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

4.1 Skin contact:

S 28 In case contact with skin, rinse immediately with plenty of water.

4.2 Eyes contact:

In case contact with eyes, rinse immediately with plenty of water for at least 15 minutes and seek for medical advice.

4.3 Vapour inhalation and/or swallowing:

In case of inhalation remove all the obstacles to breathing.

In case of swallowing, if enough trained to first aid measures, induce vomit. Wash out the mouth with water provided the person is conscious.

Seek immediately for medical advice.

5. FIRE FIGHTING MEASURES

Not applicable.

6. MEASURES FOR ACCIDENTAL SPILLING

Remove and wash clothes eventually come in contact with the preparation.

Wear a laboratory coat and gloves before cleaning the area.

6.1 Environmental precautions:

Absorb the material and dispose of it according to local and national regulations.

Clean the area with plenty of water and detergent.

7. HANDLING AND STORAGE

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7.1 Storage Temperature: $2 \div 8^{\circ} \text{C}$

7.2 Handling:

Avoid contact with skin, eyes and mucous membranes.

Do not treat the preparation with acidifying agents.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Work according with cGMP and respect the precautions indicated in §§ 6, 7.2.

Use the preparation at temperatures in the range $19 \div 25^{\circ} \text{C}$.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1	Physical status:	liquid
9.2	pH:	7.4
9.3	Boiling point:	$> 100^{\circ}\text{C}$
9.4	Melting point:	$< 0^{\circ}\text{C}$
9.5	Relative density:	1.1

10. STABILITY AND REACTIVITY

The preparation is stable in standard conditions of use and storage in a laboratory, at atmospheric pressure and in a temperature range $2 \div 8^{\circ}\text{C}$.

10.1 Conditions to avoid:

If the preparation precipitates and/or has gone dry, keep in mind sodium azide is unstable to heat: its decomposition starts over 270°C , releasing very toxic vapours with explosion risk.

10.2 Materials to avoid:

Acids (see §§ 3.1, 7.2), strong bases, strong oxidizing agents, cations of transition metals (see § 3.1).

Lead, copper, mercury, silver, gold, metal halides (explosion risk).

Incompatible with Chromyl chloride, Hydrazine, Bromine, Carbon disulfide, Dimethyl sulfate, Dibromomalonitrile.

10.3 Hazardous combustion or decomposition products:

Nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Sodium azide inhibits heme enzymes. It has a toxic effect similar to nitrites and cyanide compounds and causes fall in arterial pressure.

Minimum TD published, in man, oral:

710 $\mu\text{g}/\text{kg}$ weight with effects on central nervous system

LD₅₀ in mouse, oral:

27 mg/kg weight.

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12. ECOLOGICAL INFORMATION

Sodium azide is a very toxic substance for aquatic organisms, so it is forbidden its waste through the sewer. Work according with cGMP, precautions indicated in §§ 6.1, 7.1, 7.2, 10.1, 10.2 and recommendations in § 13.

13. DISPOSAL CONSIDERATIONS

The untreated preparation is toxic waste and has to be disposed of according to local regulations. Avoid treatment with acids and heat.

Azides can be destroyed with iodine in presence of sodium thiosulfate, releasing nitrogen.

pH must be regulated in the range 6 ÷ 8 and the product obtained can be disposed of as a saline solution.

14. TRANSPORT INFORMATION

Data referring to Sodium azide:

- | | | |
|------|--|---------------------|
| 14.1 | <u>Railway and road transport</u> (ADR/GGVE/GGVS): | 6.1/42b |
| 14.2 | <u>Airway trasport</u> (ICAO/IATA): | 6.1 UN 1687 PAX 613 |
| 14.3 | <u>Sea transport</u> (IMDG/IMO): | 6.1/II UN 1687 |

15. REGULATORY INFORMATIONS

- | | | |
|------|---|------------------|
| 15.1 | <u>Risk phrases</u> : | R 25-32-52-53 |
| 15.2 | <u>Safety phrases</u> : | S 28-45-60-61 |
| 15.3 | <u>Symbol</u> : | toxic: skull (T) |
| 15.4 | <u>Packing cathegory</u> :
(referring to Sodium azide) | E |
| 15.5 | <u>Storage</u> (LGK):
(referring to Sodium azide) | 6.1 |

16. OTHER INFORMATION

The above information and recommendations are believed to be correct and are presented in good faith. The information shall not be taken as being all inclusive and is to be used as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Technogenetics shall not be held liable for any damages resulting from handling or for contact with the above product.

This Material Safety Data Sheet annuls and replaces each previous edition.

Technogenetics S.r.l.

Material safety data sheet N. 840-A

Date: 2004-05-13

Products: **Standards**
Controls

Edition 1

1. PRODUCT AND COMPANY IDENTIFICATION:

Standards

Controls

Components of the kit: IRMA C-PEP
Cat. No. 16099515

Manufactured by Technogenetics s.r.l.
S.S. Padana Superiore Km 160, n. 11
20060 Cassina de' Pecchi (Mi)

Emergency Response Telephone Number: 0039-02-26289284

2. COMPOSITION/INFORMATION ON INGREDIENTS :

Component concentration (w/w)

Sodium azide 1.6 %

2.1 synonyms: Azide, Azoturo di Sodio, Azoture de Sodium, Natrium azid

2.2 substance classification: very toxic (T+)

2.3 preparation classification: toxic (T) in the concentration range: 1.0% - 6.9 % w/w

2.4 Risk phrases for sodium azide as such:

R and S phrases referring to this preparation are listed at § 15.

R 28	Very toxic if swallowed
------	-------------------------

R 32	Contact with acids liberates very toxic gas
------	---

R 50	Very toxic for aquatic organisms
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R 53	May cause long term adverse effects in the aquatic environment
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2.5 Symbol for the preparation: toxic: skull (T)

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3. IDENTIFICATION OF HAZARDS

3.1 Physical and chemical hazards:

Sodium azide reacts with cations of transition metals, producing explosive azides.

Do not dispose of the preparation through sewer pipes.

If treated with acid, at $\text{pH} \leq 4$, a sodium azide solution liberates very toxic gas.

3.2 Toxicological information:

Readily absorbed through skin.

Target organs: nerves, heart

See § 11.

4. FIRST AID MEASURES

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

4.1 Skin contact:

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4.2 Eyes contact:

In case contact with eyes, rinse immediately with plenty of water for at least 15 minutes and seek for medical advice.

4.3 Vapour inhalation and/or swallowing:

In case of swallowing, if enough trained to first aid measures, induce vomit. Wash out the mouth with water provided the person is conscious.

Seek immediately for medical advice.

5. FIRE FIGHTING MEASURES

Not applicable.

6. MEASURES FOR ACCIDENTAL SPILLING

Remove and wash clothes eventually come in contact with the preparation.

Wear a laboratory coat and gloves before cleaning the area.

6.1 Environmental precautions:

Absorb the material if reconstituted. Dispose of the preparation according to local and national regulations.

Clean the area with plenty of water and detergent.

7. HANDLING AND STORAGE

7.1 Storage Temperature: $2 \div 8^\circ \text{C}$

7.2 Handling:

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Avoid contact with skin, eyes and mucous membranes.
Do not treat the preparation with acidifying agents.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Work according with cGMP and respect the precautions indicated in §§ 6, 7.2.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Physical status: lyophilised.

10. STABILITY AND REACTIVITY

The preparation is stable in standard conditions of use and storage in a laboratory, at atmospheric pressure and in a temperature range $2 \div 8^{\circ}\text{C}$.

For stability after reconstitution see the instructions for use.

10.1 Conditions to avoid: prolonged storage at temperature $> 8^{\circ}\text{C}$.

10.2 Materials to avoid:

Acids (see §§ 3.1, 7.2), strong bases, strong oxidizing agents, cations of transition metals (see § 3.1).

Lead, copper, mercury, silver, gold, metal halides (explosion risk).

Incompatible with Chromyl chloride, Hydrazine, Bromine, Carbon disulfide, Dimethyl sulfate, Dibromomalonitrile.

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Avoid treatment with acids and heat.

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pH must be regulated in the range 6 ÷ 8 and the product obtained can be disposed of as a saline solution.

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