



Safety Data Sheet
Perma Green™/ HRP (EU)

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

1.1 Product identifier

Product name	Perma Green™/ HRP (EU)
Product number	K074 K074-10
Brand	Perma Green™/ HRP
UFI	J200-U0CW-500M-QPRJ

Other means of identification

Component 1. K074C (Chromogen)
Component 2. K074B (Buffer)

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

For In Vitro Diagnostics
Peroxidase Substrate

1.3 Details of the supplier of the safety data sheet

Name	Diagnostic Biosystems
Address	6616 Owens Drive Pleasanton CA 94588 USA
Telephone	(888)-896-3350
email	customersupport@dbiosys.com

1.4 Emergency telephone number

(925)-484-3350

SECTION 2: Hazards identification

General hazard statement

For Professional Users Only

2.1 Classification of the substance or mixture

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

- Acute toxicity, inhalation (chapter 3.1), Cat. 5, H333

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- Serious eye damage/eye irritation (chapter 3.3), Cat. 2
- Skin corrosion/irritation (chapter 3.2), Cat. 2, H315
- Toxic to reproduction (chapter 3.7), Cat. 1B, H360

For the full text corresponding to the "H"-codes displayed in this section, refer to Section 16.

2.2 Label elements

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

Hazard pictograms



1. Exclamation mark; 2. Health hazard

Signal word

Danger

Hazard statements

H315

Causes skin irritation

H319

Causes serious eye irritation

H360

May damage fertility or the unborn child

Precautionary statements

P201

Obtain special instructions before use.

P202

Do not handle until all safety precautions have been read and understood.

P264

Wash hands thoroughly after handling.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352

IF ON SKIN: Wash with plenty of water.

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313

IF exposed or concerned: Get medical advice/attention.

P332+P313

If skin irritation occurs: Get medical advice/attention.

P337+P313

If eye irritation persists: Get medical advice/attention.

P362+P364

Take off contaminated clothing and wash it before reuse.

P405

Store locked up.

P501

Dispose of contents/container to a licensed disposal company.

2.3 Other hazards

No other hazards are identified

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Component 1.

1. 3,3',5,5'-TETRAMETHYLBENZIDINE

Concentration < 1 % (weight)

Other names / synonyms

[1,1'-Biphenyl]-4,4'-diamine, 3,3',5,5'-tetramethyl-;

CAS no.

54827-17-7

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2. 2-METHOXYETHANOL

Concentration < 7 % (volume)

Other names / synonyms Ethanol, 2-methoxy-; Ethylene glycol monomethyl ether

EC no. 203-713-7

CAS no. 109-86-4

Index no. 603-011-00-4

- Flammable liquids (chapter 2.6), Cat. 3
- Reproductive toxicity (chapter 3.7), Cat. 1B
- Acute toxicity, inhalation (chapter 3.1), Cat. 4
- Acute toxicity, dermal (chapter 3.1), Cat. 4
- Acute toxicity, oral (chapter 3.1), Cat. 4

H226 Flammable liquid and vapor

H302 Harmful if swallowed

H312 Harmful in contact with skin

H332 Harmful if inhaled

H360FD May damage fertility. May damage the unborn child.

3. Methyl pyrrolidone

Concentration < 15 % (volume)

Other names / synonyms 2-Pyrrolidinone, 1-methyl-; Methyl pyrrolidone; N-Methylpyrrolidone

EC no. 212-828-1

CAS no. 872-50-4

Index no. 606-021-00-7

- Reproductive toxicity (chapter 3.7), Cat. 1B
- Specific target organ toxicity, single exposure (chapter 3.8), Cat. 3
- Skin corrosion/irritation (chapter 3.2), Cat. 2
- Eye damage/irritation (chapter 3.3), Cat. 2A

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

H360D May damage the unborn child

SCLs/M-factors/ATEs STOT SE 3; H335: C ≥ 10 %

Component 2.

1. 2-METHOXYETHANOL

Concentration < 7 % (volume)

2. Methyl pyrrolidone

Concentration < 15 % (volume)

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Trade secret statement

*The specific chemical identities and/or actual concentrations or actual concentration ranges for one or more listed components are being withheld as trade secrets .

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes	Consult a physician. Show this safety data sheet to the doctor in attendance.
Following inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Following skin contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.
Following eye contact	Rinse thoroughly with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.
Following ingestion	Call a poison center or doctor if you feel unwell. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Acute and delayed symptoms and effects: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.
Self-protection of the first aider	No data available

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Dry powder

5.2 Special hazards arising from the substance or mixture

Carbon oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

May intensify fire; oxidiser.

SECTION 6: Accidental release measures

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6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

Ensure adequate ventilation. Use personal protective equipment. For personal protection see section 8.

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

6.2 Environmental precautions

Should not be released into the environment. See Section 12 for additional ecological information.

6.3 Methods and material for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

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

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

CAS: 109-86-4

2-METHOXYETHANOL

Ca/OSHA: 5 ppm PEL inhalation; NIOSH: 0.1 ppm REL inhalation; OSHA: 25 ppm PEL inhalation; 80 mg/m³ PEL inhalation

8.2 Exposure controls

Appropriate engineering controls

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

Individual protection measures, such as personal protective equipment

Pictograms

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Eye and face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

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

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Thermal hazards

No data available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear
Colour	Yellow
Odour	No data available.
Odour threshold	No data available.
pH	7.0
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	No data available.
Flash point	No data available.
Evaporation rate	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Vapor pressure	No data available.
Relative vapor density	No data available.
Density and/or relative density	No data available.
Solubility	No data available.
Partition coefficient n-octanol/water (log value)	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Kinematic viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

Particle characteristics

No data available.

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9.2 Other information

9.2.1 Information with regard to physical hazard classes

No data available.

9.2.2 Other safety characteristics

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

None under normal use conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

None under normal use conditions.

10.4 Conditions to avoid

Exposure to moisture.

Avoid storing in direct sunlight and avoid extremes of temperature.

Heat, flames and sparks.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Other decomposition products - No data available In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

No acute toxicity items

Skin corrosion/irritation

May cause skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitization

Based on available data, classification data are not met

Germ cell mutagenicity

May cause genetic defects.

Carcinogenicity

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

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NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

May damage fertility or the unborn child

STOT-single exposure

Based on available data, classification data are not met

STOT-repeated exposure

Based on available data, classification data are not met

Aspiration hazard

May be harmful if swallowed and enters airways

11.2 Information on other hazards

Endocrine disrupting properties

No data available.

SECTION 12: Ecological information

12.1 Toxicity

No data available on product

12.2 Persistence and degradability

No data available on product

No data available on product

No data available on product

No data available on product

No data available on product

12.3 Bioaccumulative potential

No data available on product

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product disposal

Offer surplus and non-recyclable solutions to a licensed disposal company.

Packaging disposal

Dispose of as unused product.

SECTION 14: Transport information

14.1	UN Number	None
14.2	UN Proper Shipping Name	None
14.3	Transport hazard class(es)	None
14.4	Packing group	None
14.5	Environmental hazards	None
14.6	Special precautions for user	None
14.7	Maritime transport in bulk according to IMO instruments	None

SECTION 15: Regulatory information

SECTION 16: Other information

Full text of hazard statements referenced in Section 2

H315	Causes skin irritation
H333	May be harmful if inhaled
H360	May damage fertility or the unborn child

SDS-0070, Rev. D

Further information/disclaimer

DISCLAIMER: 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 investigation to determine the suitability of information for their particular purposes. In no event shall Diagnostic Biosystems 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, whatsoever arising, even if Diagnostic Biosystems has been advised of the possibility of such damages.