

## Safety Data Sheet

<b>Doc ID:</b> SDS-0069	<b>Effective Date:</b> December 03, 2015	<b>Revision:</b> B
<b>Trade name</b>	PermaRed/HRP™	

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

#### 1.1 Product identifier

<b>Trade name</b>	PermaRed/HRP™
<b>Cat ##</b>	K075, K075-110
<b>Components</b>	2,6 dihydroxynaphthalene , 3,4 diaminobenzoic acid, 2,4 dichloro-1-naphthol, dimethylformamide, Proclin 300™, 3-methyl-2-benzothiazolinone hydrate
<b>EC</b>	209-465-6, 210-577-2, 218-103-6, 200-679-5, 613-167-00-5, 238-428-7
<b>CAS</b>	581-43-1, 619-05-6, 2050-76-2, 68-12-2, 55965-84-9, 149022-15-1

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

Liquids represented by three components: PermaRed/HRP Substrate Buffer (K 075B) PermaRed/HRP Chromogen (K 075C) & PermaRed/HRP Stabilizer (K 075ST)

#### 1.3 Details of the supplier of the safety data sheet

Diagnostic BioSystems, Inc.  
6616 Owens Drive  
Pleasanton, CA 94588  
(925) 484-3350  
Customersupport@dbiosys.com

#### 1.4 Emergency telephone number


N/A

### SECTION 2: Hazards Identification

#### 2.1 Classification of the substance or mixture

Hazard Class	Category	Category	Hazard Statements (H-Statements)
N/A	N/A	N/A	This product has been classified as non-hazardous based on the physical and/or chemical nature and/or concentration of ingredients.

#### 2.2 Label elements

<b>Signal Word</b>	Warning
<b>Pictogram</b>	
<b>H-Statements</b>	N/A
<b>P-Statements</b>	N/A
<b>EUH-Statements</b>	N/A

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### 2.3 Other hazards

N/A

## SECTION 3: Composition/information on ingredients

<b>COMPONENT 1 (K 075C)</b>			
Name	Identifiers	Classification according to CLP	Classification (for pure substances)
<b>2,6 dihydroxynaphthalene</b>	EC: 209-465-6 CAS: 581-43-1	Concentration: <1%	R36/37/38
<b>3,4 diaminobenzoic acid</b>	EC: 210-577-2 CAS: 619-05-6	Concentration: <1%	R36/37/38
<b>2,4 dicholoro-1-naphthol</b>	EC: 218-103-6 CAS: 2050-76-2	Concentration: <1%	R36/37/38
<b>dimethylformamide</b>	EC: 200-679-5 CAS: 68-12-2	Concentration:< 99%	R20/21, R36, R61
<b>COMPONENT 2 (K 075B)</b>			
Name	Identifiers	Classification according to CLP	Classification (for pure substances)
<b>Proclin 300™</b>	EC: 613-167-00-5 CAS: 55965-84-9	Concentration: <0.1%	R43
<b>COMPONENT 3 (K 075ST)</b>			
Name	Identifiers	Classification according to CLP	Classification (for pure substances)
<b>3-methyl-2-benzothiazolinone hydrate</b>	EC: 238-428-7 CAS: 149022-15-1	Concentration: <49%	R43

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

<b>If inhaled</b>	Move to well-ventilated area and keep at rest in a position comfortable for breathing. If individual is not breathing, begin artificial respiration immediately and obtain medical attention.
<b>If on skin</b>	Immediately flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If pain or irritation occurs, obtain medical attention.
<b>If in eyes</b>	Immediately wash eyes gently under running water for 15 minutes or longer, making sure that the eyelids are held open. If pain or irritation occurs, obtain

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	medical attention.
<b>If swallowed</b>	Rinse mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If the exposed person is conscious, give small quantities of water to drink. Immediately seek medical attention and call poison control center. Do not induce vomiting unless directed to do so by medical personnel.
<b>Self-protection of the first aider</b>	N/A

### ***4.2 Most important symptoms and effects, both acute and delayed***

N/A

### ***4.3 Indication of any immediate medical attention and special treatment needed***

N/A

## **SECTION 5: Firefighting measures**

### ***5.1 Extinguishing media***

<b>Suitable extinguishing media</b>	Extinguish using suitable agents
<b>Unsuitable extinguishing media</b>	N/A

### ***5.2 Special hazards arising from the substance or mixture***

<b>Hazardous combustion products</b>	No combustion products posing significant hazards are expected from this product (a dilute aqueous solution).
<b>Other information</b>	N/A

### ***5.3 Advice for firefighters***

Wear protective clothing containing self-contained breathing apparatus.

## **SECTION 6: Accidental release measures**

### ***6.1 Personal precautions, protective equipment and emergency procedures***

<b>Protective equipment</b>	Ensure adequate ventilation Eye Protection: Wear goggles or safety glasses Hand protection: Wear latex or vinyl gloves Other protective equipment: Use lab coat or apron to prevent contact with eyes, skin and clothing
<b>Emergency procedures</b>	N/A
<b>For emergency responders</b>	N/A

### ***6.2 Environmental precautions***

Do not allow to enter sewage system

### ***6.3 Methods and material for containment and cleaning up***

<b>For containment</b>	N/A
<b>For cleaning up</b>	Use universal precautions during clean up procedures. As a precautionary

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	measure, treat spilled material with a 1:10 bleach/water solution. Use liquid absorbent material to absorb liquid and place in container suitable for disposal. Avoid generation of aerosols during clean up. Comply with applicable waste disposal regulations.
<b>Other information</b>	N/A

### ***6.4 Reference to other sections***

N/A
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## **SECTION 7: Handling and storage**

### ***7.1 Precautions for safe handling***

<b>Measures to prevent fire</b>	N/A
<b>Measures to prevent aerosol and dust generation</b>	N/A
<b>Measures to protect the environment</b>	N/A
<b>Advice on general occupational hygiene</b>	Universal precautions should be followed when using this product. Wear personal protective equipment. Ensure adequate ventilation. Do not breathe vapors or spray mist. Avoid contact with skin and eyes. Do not ingest. Do not eat, drink when handling this product, and wash hands after handling.

### ***7.2 Conditions for safe storage, including any incompatibilities***

<b>Technical measures and storage conditions</b>	Store at 2°C to 8°C
<b>Packaging materials</b>	N/A
<b>Requirements for storage rooms and vessels</b>	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
<b>Storage class</b>	N/A
<b>Other information</b>	N/A

### ***7.3 Specific end use(s)***

<b>Recommendations</b>	N/A
<b>Industrial sector specific solutions</b>	N/A

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

N/A

#### 8.2 Exposure controls

<b>Respiratory Protection</b>	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator
<b>Skin and body protection</b>	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
<b>Eye/face Protection</b>	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
<b>Hygiene Measures</b>	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

<b>Appearance</b>	liquid
<b>Odor</b>	N/A
<b>Order Threshold</b>	N/A
<b>pH</b>	N/A
<b>Melting Point/ Freezing Point</b>	N/A

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<b>Initial Boiling Point/ Freezing Point</b>	N/A
<b>Flash Point</b>	N/A
<b>Evaporation Rate</b>	N/A
<b>Flammability</b>	N/A
<b>Upper/Lower Flammability or Explosive Limits</b>	N/A
<b>Vapor Pressure</b>	N/A
<b>Vapor Density</b>	N/A
<b>Relative Density</b>	N/A
<b>Solubility</b>	N/A
<b>Partition Coefficient: n-octanol/water</b>	N/A
<b>Auto-Ignition Temperature</b>	N/A
<b>Decomposition temperature</b>	N/A
<b>Viscosity</b>	N/A
<b>Explosive Properties</b>	N/A
<b>Oxidizing Properties</b>	N/A

### **9.2 Other Information**

N/A

## **Section 10: Stability and Reactivity**

### **10.1 Reactivity**

N/A

### **10.2 Chemical Stability**

Stable under recommended storage conditions

### **10.3 Possibility of Hazardous Reactions**

N/A

### **10.4 Conditions to Avoid**

Strong prolonged heat and contact with incompatible materials

### **10.5 Incompatible Materials**

Strong Acids, Strong Bases, Strong Oxidizers, Metals and Metallic compounds

### **10.6 Hazardous Decomposition Products**

N/A

## **SECTION 11: Toxicological Information**

<b>COMPONENT 1 (K 075C)</b>	
<b>2,6 dihydroxynaphthalene (in pure form):</b> N/A	
<b>Common route of entry</b>	N/A
<b>Potential Effects of Acute</b>	N/A

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<b>Exposure</b>	
<b>Potential Effects of Chronic Exposure</b>	N/A
<b>Symptoms of Overexposure</b>	N/A
<b>3,4 diaminobenzoic acid (in pure form):</b> N/A	
<b>Common route of entry</b>	N/A
<b>Potential Effects of Acute Exposure</b>	N/A
<b>Potential Effects of Chronic Exposure</b>	N/A
<b>Symptoms of Overexposure</b>	N/A
<b>2,4 dichloro-1-naphthol (in pure form):</b> N/A	
<b>Common route of entry</b>	N/A
<b>Potential Effects of Acute Exposure</b>	N/A
<b>Potential Effects of Chronic Exposure</b>	N/A
<b>Symptoms of Overexposure</b>	N/A
<b>N-N-Dimethylformamide (in pure form):</b> mouse LD50 oral 2800mg/kg	
<b>Common route of entry</b>	Ingestion
<b>Potential Effects of Acute Exposure</b>	It causes mild skin irritation and serious eye irritation. It is not a skin sensitizer.
<b>Potential Effects of Chronic Exposure</b>	Frequent inhalation of small concentrations may cause irritability, fatigue and memory failure and eventually permanent damage to the nervous system, including the brain. May cause harm to unborn child.
<b>Symptoms of Overexposure</b>	N/A
<b>COMPONENT 2 (K 075B)</b>	
<b>Proclin 300™ (in pure form):</b> LD50 (oral-rat): 3600 mg/kg (100%)	
<b>Common route of entry</b>	Ingestion
<b>Potential Effects of Acute Exposure</b>	The product contains <0.1% of Proclin 300™ which corresponds to <0.0015% of its active ingredients. At this low final concentration, this biocidal preservative is irritating to eyes and skin and may be detrimental if enough is ingested (quantities above those found in the kit).
<b>Potential Effects of Chronic Exposure</b>	It is a skin sensitizer; prolonged or repeated exposure may cause allergic reaction in certain sensitive individuals.
<b>Symptoms of Overexposure</b>	Allergic skin reaction

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COMPONENT 3 (K 075ST )	
<b>3-methyl-2-benzothiazolinone hydrate (in pure form):</b> N/A	
<b>Common route of entry</b>	N/A
<b>Potential Effects of Acute Exposure</b>	N/A
<b>Potential Effects of Chronic Exposure</b>	N/A
<b>Symptoms of Overexposure</b>	N/A

### SECTION 12: Ecological Information

#### **12.1 Toxicity**

N/A

#### **12.2 Persistence and Degradability**

N/A

#### **12.3 Bioaccumulative potential**

N/A

#### **12.4 Mobility in Soil**

N/A

#### **12.5 Results of PBT and vPvB Assessment**

N/A

#### **12.6 Other Adverse Effects**

N/A

### SECTION 13: Disposal Considerations

#### **13.1 Waste Treatment Methods**

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.



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### SECTION 14: Transport Information

#### **14.1 Un Number**

N/A

#### **14.2 Un Proper Shipping Name**

N/A

#### **14.3 Transport Hazard Class (es)**

N/A

#### **14.4 Packing Group**

N/A

#### **14.5 Environmental Hazards**

N/A

#### **14.6 Special Precautions for User**

N/A

#### **14.7 Transport in Bulk according to Annex II of MARPOL73/78 and the IBC Code**

N/A

### SECTION 15: Regulatory Information

#### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

The product does not contain a hazardous ingredient in an amount that requires identification and labeling according to EC directives.

#### **15.2 Chemical Safety Assessment**

N/A

### SECTION 16: Other Information

This information 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 of their particular purposes.