



**Diagnostic
BioSystems**

Safety Data Sheet
PermaBlue HRP (OSHA)

SECTION 1: Identification

1.1 GHS Product identifier

Product name	PermaBlue HRP
Product number	K063, K063-110
Brand	PermaBlue™/HRP

1.2 Other means of identification

Component 1. PermaBlue/HRP Chromogen
Component 2. PermaBlue/HRP Buffer

1.3 Recommended use of the chemical and restrictions on use

In Vitro Diagnostic Use

1.4 Supplier's details

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

1.5 Emergency phone number

(925) 484-3350 (9AM-6PM, Monday - Friday, Pacific Standard Time)

SECTION 2: Hazard identification

General hazard statement

For Professional Users Only

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Acute toxicity, dermal (C.4.2), Cat. 4
- Acute toxicity, inhalation (C.4.3), Cat. 4
- Acute toxicity, oral (C.4.1), Cat. 4
- Toxic to reproduction (C.4.10), Cat. 1A
- Flammable liquids (C.4.19), Cat. 3

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2.2 GHS label elements, including precautionary statements

Pictogram



1. Exclamation mark; 2. Health hazard; 3. Flame

Signal word

Danger

Hazard statement(s)

H226	Flammable liquid and vapor
H302	Harmful if swallowed
H312	Harmful in contact with skin
H332	Harmful if inhaled
H360	May damage fertility or the unborn child

Precautionary statement(s)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER /doctor/if you feel unwell,
P302+P352	IF ON SKIN: Wash with plenty of water.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P330	Rinse mouth.
P362+P364	Take off contaminated clothing and wash it before reuse.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container to a licensed disposal company.

2.3 Other hazards which do not result in classification

No other hazards identified

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Component 1.

1. 2-METHOXYETHANOL

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Concentration	< 99 % (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 (C.4.19), Cat. 3
- Toxic to reproduction (C.4.10), Cat. 1B
- Acute toxicity, inhalation (C.4.3), Cat. 4
- Acute toxicity, dermal (C.4.2), Cat. 4
- Acute toxicity, oral (C.4.1), 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.

Component 2.

1. 2-METHOXYETHANOL

Concentration	< 20 % (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 (C.4.19), Cat. 3
- Toxic to reproduction (C.4.10), Cat. 1B
- Acute toxicity, inhalation (C.4.3), Cat. 4
- Acute toxicity, dermal (C.4.2), Cat. 4
- Acute toxicity, oral (C.4.1), 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.

2. Sodium lauryl sulfate

Concentration	< 0.03 % (weight)
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Other names / synonyms	Sodium dodecyl sulfate ; AKYPOSAL SDS; AQUAREX ME; AQUAREX METHYL; AVIROL 101; AVIROL 118 CONC; BEROL 452; CARSONOL SLS; CARSONOL SLS PASTE B; CARSONOL SLS SPECIAL; CONCO SULFATE WA; CONCO SULFATE WA-1200; CONCO SULFATE WA-1245; CONCO
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SULFATE WAG; CONCO SULFATE WAN; CONCO SULFATE WAS;
 CONCO SULFATE WN; CYCLORYL 21; CYCLORYL 31; CYCLORYL 580;
 CYCLORYL 585N; DEHAG SULFATE GL EMULSION; DEHAG SULPHATE
 GL EMULSION; DETERGENT 66; DODECYL ALCOHOL, HYDROGEN
 SULFATE, SODIUM SALT; DODECYL SODIUM SULFATE; DODECYL
 SULFATE SODIUM; DODECYL SULFATE, SODIUM SALT; DREFT;
 DUPANAL; DUPONAL WAQE; DUPONOL; DUPONOL C; DUPONOL ME;
 DUPONOL METHYL; DUPONOL QX; DUPONOL WA; DUPONOL WA DRY;
 DUPONOL WAQ; DUPONOL WAQA; DUPONOL WAQE; DUPONOL
 WAQM; EMAL 10; EMAL O; EMERSAL 6400; EMPICOL LPZ; EMPICOL LS
 30; EMPICOL LX 28; EMULSIFIER NO. 104; FINASOL OSR (SUB 2);
 GARDINOL; HEXAMOL SLS; IRIUM; LANETTE WAX-S; LAURYL SODIUM
 SULFATE; LAURYL SULFATE, SODIUM SALT; MAPROFIX 563;
 MAPROFIX LK; MAPROFIX NEU; MAPROFIX WAC; MAPROFIX WAC-LA;
 MELANOL CL; MELANOL CL 30; MONODODECYL SODIUM SULFATE;
 MONOGEN Y 100; MONTOPOL LA PASTE; N-DODECYL SULFATE
 SODIUM; Natrii laurilsulfas; NCI-C50191; NEUTRAZYME; NIKKOL SLS;
 ODORIPON AL 95; ORVUS WA PASTE; P AND G EMULSIFIER 104;
 PERLANDROL L; PRODUCT NO. 161; PRODUCT NO. 75; QUOLAC EX-
 UB; REWOPOL NLS 30; RICHONOL A; RICHONOL AF; RICHONOL C;
 SDS; SINNOPON LS 100; SINNOPON LS 95; SINTAPON L; SIPEX OP;
 SIPEX SB; SIPEX SD; SIPEX SP; SIPEX UB; SIPON LS; SIPON LS 100;
 SIPON LSB; SIPON PD; SIPON WD; SLS; SODIUM DOCECYL SULFATE;
 SODIUM DODECYL SULFATE; Sodium dodecyl sulfate ; Sodium dodecyl
 sulphate; SODIUM LAURYL SULPHATE; SODIUM MONODODECYL
 SULFATE; SODIUM MONOLAURYL SULFATE; SODIUM N-DODECYL
 SULFATE; SODIUMDODECYLSULFATE; SOLSOL NEEDLES;
 STANDAPOL 112 CONC; STEINAPOL NLS 90; STEPANOL ME;
 STERLING WA PASTE; SULFETAL L 95; SULFOPON WA 1; SULFOTEX
 WA; Sulfuric acid monododecyl ester sodium salt; Sulfuric acid monododecyl
 ester sodium salt (1:1); SULFURIC ACID, MONODODECYL ESTER,
 SODIUM SALT; SWASCOL 3L; SYNTAPON; TARAPON K 12; TEXAPON
 DL CONC.; TREPENOL WA; TVM 474; ULTRA SULFATE SL-1; WAQE

EC no.
 CAS no.

205-788-1
 151-21-3

- Flammable solids (C.4.20), Cat. 2
- Acute toxicity, inhalation (C.4.3), Cat. 4
- Acute toxicity, oral (C.4.1), Cat. 4
- Hazardous to the aquatic environment, long-term (chronic) (chapter 4.1), Cat. 3
- Eye damage/irritation (C.4.5), Cat. 1
- Skin corrosion/irritation (C.4.4), Cat. 2
- Specific target organ toxicity (single exposure) (C.4.11), Cat. 3
- Hazardous to the aquatic environment, short-term (acute) (chapter 4.1), Cat. 2

H228	Flammable solid
H302	Harmful if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H332	Harmful if inhaled
H335	May cause respiratory irritation
H401	Toxic to aquatic life
H412	Harmful to aquatic life with long lasting effects

SECTION 4: First-aid measures

4.1 Description of necessary 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. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
In case of skin contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.
If swallowed	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.
Personal protective equipment for first-aid responders	Ensure adequate ventilation. Use personal protective equipment. For personal protection see section 8.

4.2 Most important symptoms/effects, 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 immediate medical attention and special treatment needed, if necessary

No data available

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use extinguishing media appropriate for surrounding fire.

5.2 Specific hazards arising from the chemical

Sodium dodecyl sulfate : Carbon oxides, Sulphur oxides, Sodium oxides

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available.

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 materials 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).

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.

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

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

8.2 Appropriate engineering controls

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

8.3 Individual protection measures, such as personal protective equipment (PPE)

Pictograms



Eye/face protection

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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

Control banding approach

No data available.

Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties and safety characteristics

Physical state	Liquid
Appearance	Clear
Color	Not applicable
Odor	Odorless
Odor threshold	No data available.
pH	Not applicable
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.

Supplemental information regarding physical hazard classes

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No data available.

Further safety characteristics (supplemental)

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

Sodium dodecyl sulfate : 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

Information on toxicological effects

Acute toxicity

The ATE (dermal) of the mixture is: 1111.11 mg/kg bw

The ATE (gas inhalation) of the mixture is: 4545.45 ppmV

The ATE (oral) of the mixture is: 505.05 mg/kg bw

Sodium dodecyl sulfate

LD50 Oral - Rat - 1,200 mg/kg

Skin corrosion/irritation

Based on available data, classification data are not met

Serious eye damage/irritation

No data available.

Respiratory or skin sensitization

Sodium dodecyl sulfate

LC50 Inhalation - Rat - > 3,900 mg/m³ - 1 h

Germ cell mutagenicity

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Based on available data, classification data are not met

Carcinogenicity

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.

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.

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.

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

Based on available data, classification data are not met

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

Additional information

No data available.

SECTION 12: Ecological information

Toxicity

Sodium dodecyl sulfate

LC50 - Pimephales promelas (fathead minnow) - 29 mg/l - 96 h

Sodium dodecyl sulfate

LC50 - Daphnia dubia (water flea) - 5.55 mg/l - 48 h

Sodium dodecyl sulfate

NOEC - Daphnia dubia (water flea) - 0.684 mg/l - 7 d

Sodium dodecyl sulfate

Growth inhibition LOEC - Pseudokirchneriella subcapitata (green algae) - 2.68 mg/l - 6 d

Sodium dodecyl sulfate

EC50 - Desmodesmus subspicatus (chodat) - 120 mg/l - 72 h

Persistence and degradability

No data available.

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

Results of PBT and vPvB assessment

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

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Endocrine disrupting properties

No data available.

Other adverse effects

No data available.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

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

Packaging disposal

Dispose of as unused product.

Waste treatment

No data available

Sewage disposal

Do not let product enter drains

Other disposal recommendations

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

SECTION 14: Transport information

DOT (US)

UN Number: UN1188

Class: 3

Packing Group: III

Proper Shipping Name: Ethylene glycol monomethyl ether

Reportable quantity (RQ):

Marine pollutant: No

Poison inhalation hazard: No

IMDG

UN Number: UN1188

Class: 3

Packing Group: III

EMS Number:

Proper Shipping Name: Ethylene glycol monomethyl ether

IATA

UN Number: UN1188

Class: 3

Packing Group: III

Proper Shipping Name: Ethylene glycol monomethyl ether

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

California Prop. 65 components

Chemical name: 2-METHOXYETHANOL

CAS number: 109-86-4

01/01/1989 - Developmental toxicity

01/01/1989 - Male reproductive toxicity

Canadian Domestic Substances List (DSL)

Chemical name: Ethanol, 2-methoxy-

CAS: 109-86-4

Chemical name: Sulfuric acid monododecyl ester sodium salt

CAS: 151-21-3

Massachusetts Right To Know Components

Chemical name: 2-Methoxyethanol

CAS number: 109-86-4

New Jersey Right To Know Components

Common name: 2-METHOXYETHANOL

CAS number: 109-86-4

Sodium dodecyl sulphate

CAS-No. 151-21-3

Pennsylvania Right To Know Components

Chemical name: Ethanol, 2-methoxy-

CAS number: 109-86-4

Sodium dodecyl sulphate

CAS-No. 151-21-3

SARA 311/312 Hazards

Acute Health Hazard

15.2 Chemical Safety Assessment

The supplier of this product has not conducted any Chemical Safety Assessment

SECTION 16: Other information

SDS-0067 E OSHA

16.1 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,

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incidental, consequential or exemplary damages, whatsoever arising, even if Diagnostic BioSystems has been advised of the possibility of such damages.