

Version 6.1 Revision Date: December 2019

According to REACH Regulation (EC) No. 1907/2006 and CLP Regulation (EC) 1272/2008

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

**1.1 Product identifiers**

Product name : ProSafe Bio+  
 Product number : PSB +  
 Brand : Meridian Biotechnologies Ltd  
 REACH NO. : A registration number is not available for this mixture. All the substances used within the mixture are either; Pre-REACH registered, fully REACH Registered, exempt from registration or the annual tonnage does not require registration.

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

Sector of Use: For use in Scientific Research and Development ONLY. Not for consumer use.  
 Application of the substance / the mixture: Liquid Scintillation Cocktail

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

**Company** : Meridian Biotechnologies Ltd, Unit 6,  
 Epsom Downs Metro Centre,  
 Waterfield, Tadworth, Surrey KT20 5LR  
 United Kingdom  
**Telephone** : +44 (0) 20 8397 8316 (Monday – Friday 9am-5pm)  
**Fax** : +44 (0) 20 8391 1373  
**E-mail address** : info@meridian-biotech.com  
**Further information obtainable from** : Product Safety Department

**1.4 Emergency telephone numbers:**

During normal opening times: +44 (0) 20 8397 8316 (Monday – Friday 9am-5pm) GMT  
 After hours: +44 (0) 7971000273

**SECTION 2: Hazards Identification**

**2.1 Classification of the substance or mixture**

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

Aspiration Toxicity	Category 1	H304
Skin Irritation	Category 1	H314
Eye Damage	Category 1	H318
Aquatic toxicity	Category 1	H410

For the full text of the H-Statements mentioned here - see section 16

**2.2 Label elements**

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

<b>Hazard pictograms</b>			
	<b>GHS05</b>	<b>GHS08</b>	<b>GHS09</b>

**Signal word** : Danger

**Hazard statements**

H304	May be fatal if swallowed and enters airways.
H314	Causes skin irritation.
H318	Causes serious eye damage.
H410	Very toxic to aquatic life with long lasting effects

**Cont..**

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**Precautionary statements**

P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: rinse mouth. DO NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Remove/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
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

**2.3 Other hazards**

None known

**SECTION 3: Composition / Information on Ingredients**
**3.2 Chemical characterisation: Mixtures**
**Description:** Mixture of substances listed below with non-hazardous additions.

**Hazardous components:**

<b>Di-isopropylnaphthalene isomers</b>			
CAS #: 38640-62-9 EC NUMBER: 254-052-6 REACH: 01-2119565150-48-XXXX	Aspiration Toxicity category 1 Chronic aquatic 1	H304 H410	40-60%
<b>Alcohols, C11-15 secondary, ethoxylated</b>			
CAS #: 68131-40-8 EC NUMBER: 614-295-4 REACH: Exempt	Eye irritation category 1 Skin irritation category 2	H318 H315	20-40%
<b>2-(2-butoxyethoxy)ethanol</b>			
CAS #: 112-34-5 EC NUMBER: 203-961-6 REACH: 01-2119475104-44-XXXX	Eye irritation category 2	H319	10-20%
<b>Diethanolamine salt of Phosphate Ester</b>			
CAS #: N/A REACH: Exempt	Eye irritation category 2 Skin irritation category 2	H319 H315	5-10%

For the full text of the H-Statements mentioned here - see section 16

**SECTION 4: First Aid Measures**
**4.1 Description of first aid measures**
**General information:**

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

**If inhaled:**

Move person into fresh air.

**In case of contact with skin contact:**

Wash off with plenty of water.

**In case of eye contact:**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a doctor. Protect unharmed eye.

**If swallowed:**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Call for a doctor immediately.

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

No further relevant information available.

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

No further relevant information available.

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## SECTION 5: Fire Fighting Measures

### 5.1 Extinguishing media

**Suitable extinguishing agents:** Carbon Dioxide, dry powder or water spray.  
Fight larger fires with water spray or alcohol resistant foam.

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

No further relevant information available.

### 5.3 Advice for fire-fighters

**Special Protective equipment:** Wear self-contained respiratory protective device.  
Wear fully protective suit.

**Further Information:** Cool closed containers exposed to fire with water spray.

## SECTION 6: Accidental Release Measures

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

**Personal precautions:** Use personal protective equipment. Keep unprotected persons away.

**Special precautions:** Particular danger of slipping on leaked/spilled product.

### 6.2 Environmental precautions

**Environmental precautions:** Do not allow to enter surface or ground water.  
Dilute with plenty of water.

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

**Methods for cleaning up:** Absorb with liquid binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.  
Pick up mechanically  
Dispose in according to local regulations (see section 13).

### 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## SECTION 7: Handling and Storage

### 7.1 Precautions for safe handling

**Advice on safe handling:** Wear personal protective equipment.  
Avoid contact with skin and eyes.  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.

**Information about fire and explosion protection:** Keep away from sources of ignition.  
Do not smoke.

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

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep container tightly sealed.  
Protect from exposure to the light.

### 7.3 Specific end use(s)

**Specific use (s):** Advised temperature of use: 10-25 °C

**SECTION 8: Exposure Controls / Personal Protection**
**8.1 Control parameters**
**Components with workplace control parameters:**

Component	CAS - No	Exposure	Value	Control Parameter
Di-isopropylnaphthalene isomers	38640-62-9	DNEL	long term	2.1 mg/kg/d ORAL 2.1 mg/kg/d DERMAL 7.4 mg/kg/d INHALATION
2-(2-butoxyethoxy) ethanol	112-34-5	WEL	STEL TWA	101.2 mg/m <sup>3</sup> , 15 ppm 67.5 mg/m <sup>3</sup> , 10ppm

**8.2 Exposure controls**
**General protective and hygienic measures:**

Handle in accordance with good industrial hygiene and safety practice.  
 Immediately remove all soiled and contaminated clothing.  
 Wash hands before breaks and at the end of work.  
 Avoid contact with the eyes and skin.  
 Do not eat, drink, smoke or sniff while working.  
 Wear suitable gloves, body and eye protection and a face shield.

**Personal Protective Equipment:**
**Respiratory protection:**
**Skin protection:**

No personal respiratory protective equipment normally required.  
 Handle with protective gloves. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. 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. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

**Splash contact**

Material: Nitrile-rubber  
 Minimum layer thickness: 0.4 mm  
 Break through time: 30 min  
 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Eye / face protection:**

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH(US) or EN 166(EU).

**Body protection:**

Protective work clothing – complete suit protecting against chemicals. The type of protective clothing must be selected according to the concentration and amount of the dangerous substance at the specified workplace.

**Control of environmental exposure**

Prevent further leakage or spillages. Do not let product enter drains.

## SECTION 9: Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Form:	Colourless
Colour:	According to specification
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	Not determined
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	> 290°C
Flash point:	149°C
Flammability (solid, gaseous):	Not applicable
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Self-igniting:	Product is not self-igniting
Danger of explosion:	Product does not present explosion hazard.
Explosion limits:	
Lower:	0.4 Vol %
Upper:	4.7 Vol %
Vapour pressure:	Not determined
Density at 20 °C:	1 cm <sup>3</sup>
Relative density	Not determined
Vapour density	Not determined
Evaporation rate	Not determined
Solubility in / Miscibility with water:	Partially miscible
Particle size	Not applicable
Partition coefficient (n-octanol/water):	Not determined
Viscosity:	
Dynamic:	Not determined
Kinematic:	Not determined

9.2 Other information No further relevant information available.

## SECTION 10: Stability and Reactivity

10.1 Reactivity:	No data available
10.2 Chemical stability	Stable under recommended storage conditions. No decomposition if used according to specifications.
10.3 Possibility of hazardous reactions:	Reacts with strong oxidising agents.
10.4 Conditions to avoid	Toxic fumes may be released if heated above decomposition point.
10.5 Incompatible materials:	No further relevant information available.
10.6 Hazardous decomposition products:	Carbon monoxide, carbon dioxide, nitrogen oxides and phosphorus compounds.

**SECTION 11: Toxicological Information**
**11.1 Information on toxicological effects**

Component	CAS Number	Value LD50/ LC50
Di-isopropylnaphthalene isomers	38640-62-9	>4,000 mg/kg (rat) ORAL >4,000 mg/kg (rat) DERMAL >5.6 mg/l (rat) INHALATION
2-(2-butoxyethoxy) ethanol	112-34-5	>7,291 mg/kg (rat) ORAL >2,764 mg/kg (rat) DERMAL
Alcohols, secondary C11-15, ethoxylated	68131-40-8	>3,000 mg/kg (rat) ORAL <i>estimate</i> >2,000 mg/kg (rat) DERMAL <i>estimate</i>

<b>Skin corrosion / irritation:</b>	Causes skin irritation.
<b>Serious eye damage / eye irritation:</b>	Causes serious eye damage.
<b>Respiratory sensitisation:</b>	May cause respiratory irritation.
<b>Germ cell mutagenicity:</b>	Based on available data, classification criteria not met.
<b>Carcinogenicity:</b>	Based on available data, classification criteria not met.
<b>Reproductive toxicity:</b>	Based on available data, classification criteria not met.
<b>Specific Target Organ Toxicity – Single Exposure:</b>	Based on available data, classification criteria not met.
<b>Specific Target Organ Toxicity – Repeated Exposure:</b>	Based on available data, classification criteria not met.
<b>Aspiration hazard:</b>	May be fatal if swallowed and enters airways.
<b>Additional information:</b>	The toxicological properties have not been fully investigated.

**SECTION 12: Ecological Information**
**12.1 Toxicity**

**Aquatic toxicity:** Degradation / 28d 104% (OECD302B) (Zahn-Wellens on Aniline)

**12.2 Persistence and degradability:** Test data indicates that the product is biodegradable

**12.3 Bio accumulative potential:** No further relevant information available

**12.4 Mobility in soil:** No further relevant information available.

**12.5 Results of PBT and vPvB Assessment:** **PBT:** Not applicable. **vPvB:** Not applicable

**12.6 Other adverse effects**

**Additional ecological information / general notes:** Dispose in accordance to official regulations.

**SECTION 13: Disposal Considerations**
**13.1 Waste treatment methods**

**Product:** Must not be disposed together with household waste.

**Uncleaned Packaging:** Disposal must be made according to official regulations.

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## SECTION 14: Transport Information

### 14.1 UN-Number

**ADR, IMDG, IATA** UN3082

**14.2 UN proper shipping name ADR N.O.S.** UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, (contains Di-isopropylnaphthalene isomers)

**IMDG/IATA** 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, N.O.S. (contains Di-isopropylnaphthalene isomers) MARINE POLLUTANT

**14.3 Transport hazard class(es) ADR, IMDG, IATA** 9 Miscellaneous dangerous goods

**14.4 Packing group -ADR, IMDG, IATA** III

**14.5 Environmental hazards:** This product contains environmentally hazardous substances: Di-isopropylnaphthalene isomers

Marine pollutant Symbol (fish and tree)  
Special marking (ADR) Symbol (fish and tree)

**14.6 Special precautions for user** **WARNING:** Miscellaneous dangerous goods

**Danger code (Kemler):** 90  
**EMS Number:** F-A,S-F

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

**Limited quantities (LQ)** 5L

**Excepted quantities (EQ)** Code: E1

Maximum net quantity per inner packaging: 30g

Maximum net quantity per outer packaging: 1000g

**Transport category** 3

**Tunnel restriction code** E

**IMDG**  
**Limited quantities (LQ)** 5L

**Excepted quantities (EQ) Code:** E1  
Maximum net quantity per inner packaging: 30 g  
Maximum net quantity per outer packaging: 1000g

**UN "Model Regulation":** 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, N.O.S. (contains Di-isopropylnaphthalene isomers) 9, III

## SECTION 15: Regulatory Information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No further information available.

**15.2 Chemical safety assessment**  
A Chemical Safety Assessment has not been carried out.

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## Section 16: Other Information

### Hazard statements

H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H410	Very toxic to aquatic life with long lasting effects.

### Precautionary statements

P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: rinse mouth. DO NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Remove/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
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

SDS Last updated December 2019

### Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

NIOSH: National Institute of Occupational Safety and Health

LL50: Loading rate of test substance resulting in 50% mortality)

LD50: Lethal dose, 50 percent

LC50: Lethal Concentration, 50 percent