

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

1.1 Product identifiers

Product name : ProSafe+
 Product number : PS+
 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 2	H315
Serious eye damage	Category 1	H318
Chronic Aquatic	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

Hazard pictograms



GHS05



GHS08



GHS09

Signal word

Danger

Hazard statements

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

Precautionary statements

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310+P331	If SWALLOWED: Immediately call a POISON CENTRE / DOCTOR. DO NOT INDUCE VOMITING.
P302+P352	IF ON SKIN: Wash with plenty of water.
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.
P501	Dispose of contents / container in accordance with local/national regulations.

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:

Di-isopropylnaphthalene isomers			
CAS #: 38640-62-9 EC NUMBER: 254-052-6 REACH: 01-2119565150-48-XXXX	Aspiration toxicity category 1 Chronic aquatic category 1	H304 H410	50-80%
Alcohols, secondary C11-15, ethoxylated			
CAS #: 68131-40-8 EC NUMBER: 614-295-4 REACH: Exempt	Eye irritation category 1 Skin irritation category 2	H318 H315	20-40%
2-(2-butoxyethoxy) ethanol			
CAS #: 112-34-5 EC NUMBER: 203-961-6 REACH: 01-2119475104-44-XXXX	Eye irritation category 2	H319	5-10%
Phosphate Ester			
CAS #: 68130-47-2 EC NUMBER: 614-291-2 REACH: Exempt	Skin irritation category 2	H315	1-5%

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.

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 and a 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: Inform respective authorities in case of seepage into water course.
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).
Use neutralising agent.
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.
Avoid inhalation of vapour or mist.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

Information about fire and explosion protection: Keep away from sources of ignition and 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): Advised temperature of use: 20-25°C

SECTION 8: Exposure controls/personal protection
8.1 Control parameters
Components with workplace control parameters:

Component	CAS - No	Exposure	Value	Control Parameter
Di-isopropyl naphthalene 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 ³ , 15 ppm 67.5 mg/m ³ , 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.
 Avoid inhalation of vapour or mist.
 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:

No personal respiratory protective equipment normally required.

Skin protection:

Handle with protective gloves. The glove material must 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 must 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: 240 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 your customers. It should not be construed as offering an approval for any specific use scenario.

Eye / face protection:

Tightly fitting safety goggles. Face shield (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

Prevent further leakage or spillage if safe to do so. 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:	Liquid
Colour:	Colourless
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
Self-igniting:	Product is not self igniting
Danger of explosion:	Product does not present an explosion hazard
Explosion limits:	
Lower:	0.4 Vol%
Upper:	4.7 Vol %
Vapour pressure:	not determined
Density at 20 °C:	1.0 gm/cm ³
Relative density	Not determined
Vapour density	Not determined
Evaporation rate	Not determined
Solubility in / Miscibility with water:	<10ppm
Particle size	NA
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.
10.3 Possibility of hazardous reactions:	No decomposition if used according to specifications. Reacts with strong oxidising agents. Reacts with flammable substances.
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 and carbon dioxide, Nitrogen oxides (NO _x) and phosphorus compounds.

SECTION 11: Toxicological information
11.1 Information on toxicological effects

Component	CAS Number	Value LD50/ LC50
Di-isopropyl naphthalene 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>

Acute toxicity:
Cont..
Skin corrosion / irritation:

Causes skin irritation.

Serious eye damage / eye irritation:

Causes serious eye damage.

Respiratory sensitisation:

May cause respiratory irritation.

Germ cell mutagenicity:

Based on available data, classification criteria not met.

Carcinogenicity:

Based on available data, classification criteria not met.

Reproductive toxicity:

Based on available data, classification criteria not met.

Specific Target Organ Toxicity – Single Exposure:

Based on available data, classification criteria not met.

Specific Target Organ Toxicity – Repeated Exposure:

Based on available data, classification criteria not met.

Aspiration hazard:

May be fatal if swallowed and enters airways.

Additional information:

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:

Dispose of in accordance with local authority regulations.

SECTION 13: Disposal considerations
13.1 Waste treatment methods
Product:

 Dispose of in accordance with local authority regulations.
 Must not be disposed of, with household waste.

Uncleaned Packaging:

Disposal must be made according to official regulations.

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: Marine pollutant Special marking (ADR)	This product contains environmentally hazardous substances: Di-isopropylnaphthalene isomers Symbol (fish and tree) Symbol (fish and tree)
14.6 Special precautions for user	WARNING: Miscellaneous dangerous goods
Danger code (Kemler): EMS Number:	90 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.

SECTION 16: Other information

Hazard statements

H304	Maybe fatal if swallowed and enters airways
H315	Causes skin irritation
H318	Causes serious eye damage
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+P310+P331	If SWALLOWED: Immediately call a POISON CENTRE / DOCTOR. DO NOT INDUCE VOMITING
P302+P352	IF ON SKIN: Wash with plenty of water.
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