

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

1.1 Product identifiers

Product name : ProFlow P+

Product number : PFP+

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 : SU24 Scientific research and development

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
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

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
Serious eye damage	Category 1	H318
Skin Irritation	Category 1B	H314
Reproductive toxicity	Category 2	H361d
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

Signal word

Danger

Hazard statements

H304	May be fatal if swallowed and enters airways
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H361d	Suspected of damaging the unborn child

Cont...

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Precautionary statements

P201 +P202	Obtain special instructions before use and do not handle until all safety precautions have been read and understood.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTRE / DOCTOR.
P304+ P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
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:

Di-isopropylnaphthalene isomers			
CAS #: 38640-62-9 EC NUMBER: 254-052-6 REACH: 01-2119565150-48-0000	Aspiration Toxicity category 1 Chronic aquatic 1	H304 H410	40-60%
Alcohols, C11-15 secondary, ethoxylated			
CAS #: 68131-40-8 EC NUMBER: 614-295-4 REACH: Exempt	Eye irritation category 1 Skin irritation category 2	H318 H315	20-40%
Methyl diglycol			
CAS #: 111-77-3 EC NUMBER: 203-906-6	Reproductive toxicity category 2	H361d	5-10%
Phosphate Ester			
CAS #: 68130-47-2 EC NUMBER: 614-291-2	Eye damage category 1 Skin corrosive category 2	H318 H315	2-5%
Phosphate Ester			
CAS #: N/A EC NUMBER: 906-386-5	Skin irritation category 1b Eye damage category 1	H314 H318	5-8%

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 physician. 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 physician. 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.
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: 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).
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
Methyl diglycol	111-77-3	WEL	TWA	50.1 mg/m ³ , 10ppm
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

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 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:	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:	190°C
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 gm/cm ³
Relative density	Not determined
Vapour density	Not determined
Evaporation rate	Not determined
Solubility in / Miscibility with water:	Not 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 and 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, carbon dioxide, nitrogen oxides and phosphorus compounds.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Component	CAS - No	LD50 / 48 hours
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
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>
Methyl diglycol	111-77-3	LD50 rat (6,500mg/kg) oral LD50 rat (6,450mg/kg) dermal

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, suspected of damaging unborn child.
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:	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:	Can be disposed of into sewage system with official approval.

SECTION 13: Disposal Considerations

13.1 Waste treatment methods	
Product:	Must not be disposed together with household garbage.
Uncleaned Packaging:	Disposal must be made according to official regulations.

SECTION 14: Transport Information

14.1 UN-Number ADR, IMDG, IATA	UN1760
14.2 UN proper shipping name - ADR IMDG/IATA	UN 1760 CORROSIVE LIQUID, N.O.S (contains butyl acid phosphate)
14.3 Transport hazard class(es) ADR, IMDG, IATA Class Label	8 Corrosive substances 8
14.4 Packing group - ADR, IMDG, IATA	III
14.5 Environmental hazards: Marine pollutant:	Yes
14.6 Special precautions for user Danger code (Kemler): EMS Number:	Warning: corrosive substances. 80 F-A,S-B
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Limited quantities (LQ) Excepted quantities (EQ) Maximum net quantity per inner packaging: Maximum net quantity per outer packaging: Transport category Tunnel restriction code IMDG Limited quantities (LQ) Excepted quantities (EQ) Code: Maximum net quantity per inner packaging: Maximum net quantity per outer packaging: UN "Model Regulation":	5Kg Code: E1 30g 1000g 3 E 5L E1 Maximum net quantity per inner packaging: 30g 1000g UN 1760 CORROSIVE LIQUID, N.O.S (contains butyl acid phosphate), 8, 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	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
H361d	Suspected of damaging the unborn child
H410	Very toxic to aquatic life with long lasting effects

Cont...

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Precautionary statements

P201 +P202	Obtain special instructions before use and do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapours/spray
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTRE / DOCTOR.
P304+ P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
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 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.

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 & restriction of CHemicals