



Version 2.0 (01/04/11)

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**1. Identification of the substance**

Chemical Name: ProFlow P+ (Liquid Scintillation Cocktail)  
Product Code: PFP+  
Supplier: Meridian  
5 West Street  
EPSOM  
Surrey KT18 7RL  
Telephone: 01372 749783  
Fax: 01372 720265

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**2. Composition**

Solution containing the following components:

40-60% Di-isopropyl naphthalene isomers	CAS # 38640-62-9
20-40% Alcohol Ethoxylate	CAS # 84133-50-6
2-10% 2-(2-methoxyethoxy)ethanol	CAS # 111-77-3
2-10% 2-(2-ethoxyethoxy)ethanol	CAS # 111-90-0
2-10% Alcohol ether phosphate ester	N/A mixture
1-5% Polyoxyethylene C8-C10 ether phosphate	CAS # 68130-47-2
0.1-1% 2,5-diphenyloxazole	CAS # 92-71-7
0.1-1% 1,4-bis(4-methyl-alpha-styryl)benzene	CAS # 13280-61-0

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**3. Regulatory Information**

Classification &amp; Symbol

**Risk Phrases**

R36/38 Irritating to eyes and skin.

**Safety Phrases**

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

#### 4. First Aid Measures

**General information:**

Immediately remove any contaminated clothing and wash with copious amounts of soapy water.

**Eye contact:**

Wash eyes with flowing water for 10 minutes, gently prising open eyelids to ensure efficient washing. All eye injuries from chemicals should be seen by a doctor.

**Skin contact:**

Remove any contaminated clothing. Wash the affected area with copious amounts of soapy water.

**Ingestion:**

Do not induce vomiting except in the presence of, or on the orders of a doctor. Seek medical help and take this data sheet. If chemical is confined to the mouth, then wash out mouth and allow patient to swallow mouthwash. If patient is conscious then give water to drink to dilute the chemical in the stomach. If unconscious then put patient in the recovery position.

**Inhalation:**

Inhalation is not normally a problem because of the low vapour pressure. In general, overexposure to high atmospheric concentrations of alkyl-substituted aromatics may produce central nervous depression, headache, dizziness, incoordination, nausea and loss of appetite. Remove to fresh air. If not breathing, give artificial respiration and get medical attention immediately.

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#### 5. Fire Fighting Measures

Suitable extinguishing media:

Dry powder, water spray, foam.

Specific hazards during fire fighting:

Heating or fire can release Carbon Monoxide.

Special protective equipment for Fire fighters:

In the event of fire, wear self contained breathing apparatus.

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#### 6. Accidental Release Measures

Personal precautions:

Wear eye protection and gloves.

Environmental precautions:

Absorb spill with inert material (vermiculite, sand or earth) then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing personal precautions. Provide ventilation.

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#### 7. Handling and Storage

**Handling:**

Wash thoroughly after handling. Use only in a well ventilated area. Do not breath vapour, mist or gas. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Discard contaminated shoes.

**Storage:**

Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from Direct sunlight.

**Engineering controls:**

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

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## 8. Exposure controls and personal protection

**Exposure limits:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored in the workplace.

**Personal protective equipment:**

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles  
Skin: Wear appropriate protective gloves to prevent skin exposure.  
Clothing: Wear appropriate protective clothing to prevent skin exposure.

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## 9. Physical and chemical properties

Molecular formula: Solution  
Physical state: Liquid  
Colour: Colourless  
Odour: Characteristic  
Solubility in water: <10ppm  
Vapour pressure: 0.0005 mm Hg at 20 deg C (68 deg F)  
Boiling point: 290-305 deg C (554-581 deg F)  
Autoignition temp: Not available  
Flash point: 149 deg C  
Density at 20 deg C: 1.00 g/cm<sup>3</sup>

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## 10. Stability and Reactivity

**Chemical stability:** Stable

**Conditions to avoid:** Excess heat

**Incompatibilities with other materials:** Strong oxidizing materials

**Hazardous decomposition products:**

Combustion can produce oxides of carbon.

**Hazardous reactions:**

Stable under normal conditions

**11. Toxicological Information****CAS# 38640-62-9**Oral LD<sub>50</sub> 3900 mg/kg (rat)Dermal LD<sub>50</sub> 4500 mg/kg (rat)**Primary irritant effect:****Skin:** No irritant effect.**Eye:** No irritating effect.**Sensitization:** No sensitizing effects known.**Additional toxicological information:**

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us. The substance is not subject to classification.

**CAS # 84133-50-6**

Acute toxicity

Peroral:

LD<sub>50</sub> (rat) 8.57 (5.80-12.68) ml/Kg

Percutaneous:

LD<sub>50</sub> (rabbit) 4.00 (2.45-6.53 ml/Kg (occluded)

Inhalation:

Dynamic generation of substantially saturated vapour Rat; 8 hour;  
Room temperature. Mortality: 0/6

Irritation:

Skin; Rabbit; 4 h uncovered – erythema

Eye; Rabbit; 0.02ml – moderate corneal injury

**CAS # 111-77-3**

Acute toxicity:

Oral, mouse, LD<sub>50</sub>, 8222 mg/KgOral, rabbit, LD<sub>50</sub>, 7190 mg/KgOral, rat, LD<sub>50</sub>, 4000 mg/KgRabbit, skin, LD<sub>50</sub>, 2500 mg/Kg

Irritation

Eyes, Rabbit, 500 mg: Moderate irritation effect

Eyes, Rabbit, 500 mg, 24H: Mild irritation effect

**CAS # 111-90-0**

Acute toxicity:

Oral, rat, LD<sub>50</sub> 5540-9740 mg/KgOral, guinea pig, LD<sub>50</sub> 3670-4970 mg/KgOral, mouse, LD<sub>50</sub> 6580 mg/KgOral, rabbit, LD<sub>50</sub> 3620 mg/Kg

Irritation

Skin, Rabbit, 8500 mg: Mild irritation effect

Eyes, Rabbit, 500 mg: Mild irritation effect

## 12. Ecological information

### CAS# 38640-62-9

This product is poorly soluble in water, highly sorptive to suspended matter in water and sediments, and susceptible to biodegradation when present in water under aerated conditions. Biodegradation is expected in a waste water treatment plant.

### CAS # 84133-50-6

Environmental fate:

Modified Sturm Test (OECD 301E) (% CO<sub>2</sub> evolved) – Day 28 = 89.4%

Closed Bottle Test (OECD 301D) (% Oxygen consumption) – Day 28 = 90%

### CAS # 111-77-3

ECOTOXICOLOGICAL EFFECTS

Test Type: LC<sub>50</sub> Fish (Rainbow Trout); 96 H; 1,000 mg/l

Test Type: EC<sub>50</sub> Daphnia (*Daphnia magna*); 24-48 H; > 500 mg/l

Test Type: IC<sub>50</sub> Fish (Bluegill/Sunfish); 96 H; > 7500 mg/l

### CAS # 111-90-0

ECOTOXICOLOGICAL EFFECTS

The LC<sub>50</sub> 96-hour values for fish are over 100 mg/l.

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## 13. Disposal Considerations

Recommended disposal, including packaging is by incineration in a suitable installation when in accordance with local regulations.

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## 14. Transport Information

Not a hazardous material for DOT shipping.

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## 15. Regulatory Information

### European/International Regulations

European labeling in accordance with EC Directives.

**Hazard Symbols:** Irritant

**Risk Phrases:** R36/38 Irritating to eyes and skin.

**Safety Phrases**

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 Wear suitable protective clothing gloves and eye/face protection.

TSCA (Toxic Substances Control Act)

CAS# 6196-95-8 is listed  
CAS# 84133-50-6 is listed  
CAS # 111-77-3 is listed  
CAS # 111-90-0 is listed

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## **16. Other Information**

The information above is believed to be accurate and represents the best 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 carry out their own investigation to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third part or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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