

**Safety Data Sheet**  
according to WHS Regulations

Printing date 21.11.2023

Version number 6

Revision: 21.11.2023

Hazardous according to criteria of Australian Safety and Compensation Council.

**1 Identification**

- **Product identifier**
- **Trade name:** Permafluor E+
- **Article number:** 6013187, 6013181
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Revvity Health Sciences B.V.  
Rigaweg 22  
9723 TH Groningen  
The Netherlands  
Phone: 0031 50 5445900  
www.revvity.com  
Australian contact address:  
Revvity  
Level 2 ,Building C, Tenancy A,  
211 Wellington Road,  
Mulgrave,  
VIC 3170  
Australia  
Phone: +613 9212 8500
- **Further information obtainable from:**  
Quality Assurance, Environment, Safety & Health (QA/ESH)  
SDS.Groningen@revvity.com
- **Emergency telephone number:**  
+31 50 5445971  
CHEMTREC (within Australia) +(61)-290372994  
CHEMTREC (from outside Australia) +1 703-527-3887

**2 Hazard(s) Identification**

- **Classification of the substance or mixture**



GHS02 flame

Flam. Liq. 3

H226 Flammable liquid and vapour.



GHS09 environment

Aquatic Chronic 2

H411 Toxic to aquatic life with long lasting effects.



GHS07

Acute Tox. 4

H332 Harmful if inhaled.

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Skin Irrit. 2

H315 Causes skin irritation.

Serious eye damage/irritation – Category 2A H319 Causes serious eye irritation.

STOT SE 3

H335 May cause respiratory irritation.

· **Label elements**

· **GHS label elements**

The product is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS02 GHS07 GHS09

· **Signal word** Warning

· **Hazard-determining components of labelling:**

1,2,4-trimethylbenzene (80-100 %)

· **Hazard statements**

H226 Flammable liquid and vapour.

H332 Harmful if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H411 Toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P233 Keep container tightly closed.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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 victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

**3 Composition and Information on Ingredients**

· **Chemical characterisation: Mixtures**

· **Description:** Mixture: consisting of the following components.

· **Dangerous components:**

95-63-6	1,2,4-trimethylbenzene   	80-100%
107-98-2	1-methoxy-2-propanol  	10-20%

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128-37-0	Butylated hydroxytoluene 	0-0.025%
· <b>Non-dangerous components</b>		
92-71-7	2,5-Diphenyloxazole (PPO)	0-2.5%
13280-61-0	1,4-Bis-(2-methylstyryl)-benzene (bis-MSB)	0-2.5%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

### 4 First Aid Measures

- **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:** If symptoms persist consult doctor.

- **Information for doctor:**

- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

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

No further relevant information available.

### 5 Fire Fighting Measures

- **Suitable extinguishing agents:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- **For safety reasons unsuitable extinguishing agents:** Water with full jet

- **Special hazards arising from the substance or mixture** No further relevant information available.

- **Protective equipment:** Mouth respiratory protective device.

### 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

- **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

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**7 Handling and Storage**

- **Handling:**
- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Storage:**
- **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 receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

**8 Exposure controls and personal protection**

- **Additional information about design of technical facilities:** No further data; see section 7.

- **Ingredients with limit values that require monitoring at the workplace:**

**107-98-2 1-methoxy-2-propanol**

NES	Short-term value: 553 mg/m <sup>3</sup> , 150 ppm
	Long-term value: 369 mg/m <sup>3</sup> , 100 ppm

- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Respiratory protection:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

EN ISO 374-1/Type B

- **Material of gloves**

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.2 mm

Breakthrough time: > 120 minutes

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· Eye protection:



Tightly sealed goggles

**9 Physical and Chemical Properties**

· General Information

· Appearance:

- Form: Fluid
- Colour: Colourless
- Odour: Characteristic

· Change in condition

· Melting point/freezing point: Undetermined.

· Initial boiling point and boiling range: 150 °C

· Flash point: 36 °C

· Auto-ignition temperature: 500 °C

· Ignition temperature: Product is not selfigniting.

· Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· Explosion limits:

· Lower: 1.1 Vol %

· Upper: 7.0 Vol %

· Vapour pressure at 20 °C: 5 mm Hg

· Density at 20 °C: 0.9 g/cm<sup>3</sup>

· Solubility in / Miscibility with

· water: Not miscible or difficult to mix.

· Other information No further relevant information available.

**10 Stability and Reactivity**

· Reactivity No further relevant information available.

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

· Possibility of hazardous reactions No dangerous reactions known.

· Conditions to avoid No further relevant information available.

· Incompatible materials: No further relevant information available.

· Hazardous decomposition products: Carbon monoxide and carbon dioxide

**11 Toxicological Information**

· Information on toxicological effects

· Acute toxicity  
Harmful if inhaled.

· LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Oral	LD50	3,563 mg/kg
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Dermal	LD50	3,598 mg/kg (Rabbit)
Inhalative	LC50/4 h	14.8 mg/l

**95-63-6 1,2,4-trimethylbenzene**

Oral	LD50	3,400 mg/kg (Rat)
Dermal	LD50	3,160 mg/kg (Rabbit)
Inhalative	LC50/4 h	18 mg/l (Rat)

- **Skin corrosion/irritation**  
Causes skin irritation.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**  
May cause respiratory irritation.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

**12 Ecological Information**

· **Toxicity**

· **Aquatic toxicity:**

**95-63-6 1,2,4-trimethylbenzene**

Inhalative	LC50	7.19-8.28 mg/l (Other fish)
	EC50/48h	6.14 mg/l (Daphnia magna)

- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation** Must be specially treated adhering to official regulations.

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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

· <b>UN-Number</b> · <b>ADG, IMDG, IATA</b>	1993
· <b>UN proper shipping name</b> · <b>IMDG, IATA</b>	FLAMMABLE LIQUID, N.O.S. (1,2,4-trimethylbenzene)
· <b>Transport hazard class(es)</b> · <b>ADG</b>	
	
· <b>Class</b> · <b>Label</b>	3 Flammable liquids. 3
· <b>IMDG, IATA</b>	
	
· <b>Class</b> · <b>Label</b>	3 Flammable liquids. 3
· <b>Packing group</b> · <b>ADG, IMDG, IATA</b>	III
· <b>Environmental hazards:</b> · <b>Marine pollutant:</b> · <b>Special marking (ADG):</b>	No Symbol (fish and tree)
· <b>Special precautions for user</b> · <b>Hazard identification number (Kemler code):</b> · <b>EMS Number:</b>	Warning: Flammable liquids. 30 F-E, <u>S-E</u>
· <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>UN "Model Regulation":</b>	UN1993, FLAMMABLE LIQUID, N.O.S. (not viscous) (1,2,4-trimethylbenzene), ENVIRONMENTALLY HAZARDOUS, 3, III

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### 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Australian Inventory of Industrial Chemicals**

95-63-6	1,2,4-trimethylbenzene
107-98-2	1-methoxy-2-propanol
92-71-7	2,5-Diphenyloxazole (PPO)
128-37-0	Butylated hydroxytoluene

· **Standard for the Uniform Scheduling of Medicines and Poisons**

None of the ingredients is listed.

· **Australia: Priority Existing Chemicals**

None of the ingredients is listed.

· **GHS label elements**

The product is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS02    GHS07    GHS09

· **Signal word** Warning

· **Hazard-determining components of labelling:**

1,2,4-trimethylbenzene (80-100 %)

· **Hazard statements**

H226 Flammable liquid and vapour.

H332 Harmful if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H411 Toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P233 Keep container tightly closed.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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 victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t

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

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### 16 Other information

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.

· **Relevant phrases**

- H226 Flammable liquid and vapour.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.

· **Department issuing SDS:** Quality Assurance, Environment, Safety & Health (QA/ESH)

· **Contact:** SDS.Groningen@revvity.com

· **Abbreviations and acronyms:**

- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- ICAO: International Civil Aviation Organisation
- ADR: Accord relatif au transport international 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
- 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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Flam. Liq. 3: Flammable liquids – Category 3
- Acute Tox. 4: Acute toxicity – Category 4
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Serious eye damage/irritation – Category 2A: Serious eye damage/eye irritation – Category 2A
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
- Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

· \* **Data compared to the previous version altered.**