



SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) subsequently amended

Date of compilation: 05.03.2018

Product code: P-RG-012-03

Version: 1.0

Revision: -

Replaced version: -

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Trade Name: **P1 e102 GT**

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

1.1 Product identifier:

Trade Name:

P1 e102 GT

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

Identified uses:

Racing fuel

Uses advised against:

Only for identified uses.

1.3 Details of the supplier of the safety data sheet:

P1 Racing Fuels Limited
Unit 21, Dockgate, Merchants Road
Galway H91P6CF,
Republic of Ireland
tel.: +353 (91) 734 008
responsible person: info@p1racingfuels.com

1.4 Emergency telephone number:

Giftnotruf der Charité - Universitätsmedizin Berlin Campus Benjamin Franklin, Hindenburgdamm 30, 12203 Berlin
+49 30 19240 (24 hour service)

SECTION 2: Hazards identification

The mixture is classified as **dangerous** as follows:

2.1 Classification of the mixture:

according to 1272/2008/EC

Flam. Liq. 2: H225
Acute Tox. 4: H302
Asp. Tox. 1: H304
Eye Irrit. 2: H319
STOT SE 3: H336
Muta. 1B: H340
Carc. 1B: H350
Repr. 2: H361d
STOT RE 2: H373
Aquatic Acute 1: H400
Aquatic Chronic 1: H410

The most important adverse physicochemical, human health and environmental effects:

Highly flammable liquid and vapour. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes serious eye irritation. May cause drowsiness or dizziness. May cause genetic defects. May cause cancer. Suspected of damaging the unborn child. Cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

2.2 Label elements:

Labeling according to
1272/2008/EC



signal word

Danger.



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hazard statements

H225: Highly flammable liquid and vapour.
H302: Harmful if swallowed.
H304: May be fatal if swallowed and enters airways.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.
H350: May cause cancer.
H361d: Suspected of damaging the unborn child.
H373: May causes damage to organs through prolonged or repeated exposure.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.

precautionary statements

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260: Do not breathe dust/fumes/gas/mist/vapours/spray.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331: Do NOT induce vomiting.
P370+378: In case of fire: Use dry powder or dry sand to extinguish.
P403+235: Store in a well-ventilated place. Keep cool.

supplemental hazard information

not given

2.3 Other hazards:

In use, may form flammable/explosive vapour-air mixture
The mixture meets not the criteria for PBT or vPvB .

SECTION 3: Composition/information on ingredients

3.2 Mixtures

3.2.1 Components of a mixture classified as hazardous:

Chemical identity	CAS number EC number	Content (wt. %)	Classification 1272/2008/EC
2-Methylbutane	78-78-4 201-142-8	5 - 20	Flam. Liq. 2: H225 Asp. Tox. 1: H304 STOT SE 3; H336 Aquatic Chronic 2: H411
2,2,4-Trimethylpentane	540-84-1 208-759-1	10 - 30	Flam. Liq. 2: H225 Asp. Tox. 1: H304 Skin Irrit. 2: H315 STOT SE 3; H336 Aquatic Acute 1: H400 Aquatic Chronic 1: H410
Cyclohexane	110-82-7 203-806-2	1 - 10	Flam. Liq. 2: H225 Asp. Tox. 1: H304 Skin Irrit. 2: H315 STOT SE 3; H336 Aquatic Chronic 1: H410



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2-Methylbut-2-ene	513-35-9 208-156-3	1 - 10	Flam. Liq. 2: H225 Acute Tox. 4: H302 Asp. Tox. 1: H304 Skin Irrit. 2: H315 STOT SE 3: H336 Muta. 2: H341 Carc. 2: H351 Aquatic Chronic 2: H411
2,4,4-Trimethylpent-1-ene	107-39-1 203-486-4	5 - 20	Flam. Liq. 2: H225 Aquatic Chronic 2: H411
Toluene	108-88-3 203-625-9	10 - 30	Flam. Liq. 2: H225 Asp. Tox. 1: H304 Skin Irrit. 2: H315 STOT SE 3: H336 Repr. 2: H361d STOT RE 2: H373
Solvent naphtha (petroleum), light arom.	64742-95-6 265-199-0	5 - 20	Flam. Liq. 3: H226 Asp. Tox. 1: H304 Skin Irrit. 2: H315 STOT SE 3: H336 Muta. 1B: H340 Carc. 1B: H350 Aquatic Chronic 2: H411
Ethanol	64-17-5 200-578-6	5 - 20	Flam. Liq. 2: H225 Eye Irrit. 2: H319

SECTION 4: First aid measures

In all cases keep the person at physical and mental rest and warm. Always seek for medical help.

4.1 Description of first aid measures:

Inhalation:

Break the exposure, transfer the person to the fresh air, apply artificial respiration, if the person is not breathing. See section 4.3.

Skin contact:

Flush the affected area with plenty of water (preferably lukewarm) and soap, carefully remove the contaminated clothing as soon as possible and continue washing the affected skin.

Eye contact:

Rinse with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Never neutralize!

Ingestion:

Rinse out mouth with clean water, give 0,2 to 0,5 l water to drink, do not induce vomiting. Do not attempt to neutralize. Immediately call in physician. Never give anything by mouth to an unconscious person.

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

Causes skin irritation. This irritation can lead to redness and swelling of the skin. Repeated exposure may cause skin dryness or cracking.

Causes eye irritation. This irritation can lead to redness and swelling of the eye.

May cause respiratory irritation. If inhaled, symptoms are sore throat, headache, nausea, coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath and can cause temporary weakness of the central nervous system (CNS).

If swallowed, it is not recommended to bring Ipecac to induce vomiting.

If necessary, (and under medical supervision) should be ensured gastric lavage with endotracheal intubation.



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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media:

Small fire:

Carbon dioxide CO₂, dry extinguishing media, sand or earth, foam.

Extensive fire:

Fragmented water currents (water spray), foam.

Extinguishing media which shall not be used for safety reasons:

Do not use strong water jet.

5.2 Special hazards arising from the substance:

The vapour-air-mixture is explosive.

Specific hazards during firefighting: vapor is heavier than air. May cause flashback.

Explosion of containers is possible at the fire - Use water spray to cool closed containers.

The combustion products: CO, CO₂ and products of incomplete combustion.

5.3 Advice for firefighters:

In the event of fire, wear self-contained breathing apparatus and clothing protective against chemicals. Cool all affected containers with flooding quantities of water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

In case of leakage of liquid products there is a risk of fire and an explosive atmosphere. Close the accident site. Avoid direct contact with spilled material. Stand downwind. The remaining staff who are participating in rescue operations, keep out of the area of the leak. In managing the emergency, use self-contained breathing apparatus and full clothing. Ensure that the machine for sparking and was disconnected from the power supply.

Remove all ignition sources.

Ensure adequate ventilation, especially in confined areas. It is also necessary to continuously measure the concentration of toluene in the environment.

6.2 Environmental precautions:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Do not allow to enter waters or soil. If this cannot be avoided, immediately inform the competent authorities (police and firefighters).

6.3 Methods and material for containment and cleaning up:

Absorb spillage using an absorbent, such as earth, sand or vermiculite. Place in container for disposal according to local regulations (see section 13). Pump off larger quantities. Use non-sparking tools.

Afterwards ventilate area and wash spill site.

6.4 Reference to other sections:

See section 7, 8 and 13 of this sheet.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:

Provision of very good ventilation in the working area. Vapour/air mixtures are heavier than air. Adequate ventilation at the floor area must be ensured as well. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Keep containers tightly sealed. Prevent formation of aerosols. Do not use any tools that cause sparks.

When using, do not eat, drink or smoke. Wash hands with warm water and soap before breaks and after work.



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7.2 Conditions for safe storage, including any incompatibilities:

Store in original tightly closed packing in dry and well-ventilated areas. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s):

See section 1.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.1.1 Exposure limit value:

2-Methylbutane:

Long-term exposure: 3000 mg/m³

Short-term exposure: 6000 mg/m³

2,2,4-Trimethylpentane:

Long-term exposure: 470 mg/m³

Short-term exposure: 940 mg/m³

Cyclohexane:

Long-term exposure: 700 mg/m³

Short-term exposure: 2800 mg/m³

Toluene:

Long-term exposure: 191 mg/m³

Short-term exposure: 384 mg/m³

Solvent naphtha (petroleum), light arom.:

Long-term exposure: 840 mg/m³

Short-term exposure: 1300 mg/m³

Ethanol:

Long-term exposure: 960 mg/m³

Short-term exposure: 1920 mg/m³

8.1.2 DNEL and PNEC:

DNEL/PNEC: No data available.

8.2 Exposure controls

8.2.1 Exposure reduction (technical measures):

Where exposure cannot be prevented by other means the use of individual protection measures, such as personal protection equipment is necessary. Ensure adequate ventilation of the workplace. Regularly measure the concentration of this agent in the workplace atmosphere.

Uncontrolled escape of substance/formulation into environment is to be avoided.

8.2.2 Individual protection measures, such as personal protective equipment:

Respiratory protection:

Use adequate respiratory protection:

Brief exposure or low concentration use a respirator with a filter against organic vapors, at high concentrations and long-term exposure should be self-contained breathing apparatus

Hand protection:

Chemical resistant gloves. Damaged gloves should be replaced.

Eye/face protection:

Chemical safety goggles

Skin protection:

Suitable protective clothing. In the case of soiled clothing and wash before reuse.



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8.2.3 Environmental exposure reduction:

When using do not eat, drink or smoke. After work, wash thoroughly with soap and water and have a shower. Use protective cream.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

State	Liquid
Appearance (at 20 °C):	Clear and bright
Colour	Colorless/Yellowish
Odour:	Gasoline
Odour threshold:	not available
pH (at 20 °C):	not available
Melting point/freezing point:	not available
Boiling point (range):	42 – 200°C
Flash point:	- 40 °C (closed cup)
Evaporation rate:	not available
Flammability:	not available
Explosive limits	Lower (% vol.): not available Higher (% vol.): not available
Vapour pressure: (at 37.8 °C)	44.4 kPa
Vapour density:	not available
Relative density:	0.760 – 0.765 kg/L
Solubility in water (at 20 °C) :	Not miscible
Partition coefficient: n-octanol/water:	not available
Auto-ignition temperature:	not available
Decomposition temperature:	not available
Viscosity (at 40 °C):	Non-viscous
Explosive properties:	not classified
Oxidising properties:	not classified

9.2 Other information

not known

SECTION 10: Stability and reactivity

10.1 Reactivity:

Stable under recommended transport or storage conditions.

10.2 Chemical stability:

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions:

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

Decomposition may occur on exposure to conditions or materials listed below.

10.4 Conditions to avoid:

Heat. Hot surfaces. Sources of ignition. Flames.

10.5 Incompatible materials:

Strong oxidizing agents. Strong acids.

10.6 Hazardous decomposition products:

Carbon oxides, low molecular weight hydrocarbons and products of incomplete combustion.

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

Acute toxicity:



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- LD ₅₀ oral, rat:	>5000 mg/kg - 2,2,4-Trimethylpentane 12705 mg/kg - Cyclohexane 750 – 2600 mg/kg - 2-Methyl-2-butene >5580 mg/kg - Toluene 10470 mg/kg – Ethanol
- LD ₅₀ inhalation, rat:	>33.52 mg/l (4h) - 2,2,4-Trimethylpentane >34.00 mg/l (4h) - Cyclohexane >175.00 mg/l (4h) - 2-Methyl-2-butene 12500 – 28800 mg/kg (4h) - Toluene 30000 mg/l (4h) – Ethanol
- LD ₅₀ dermal, rabbit	>2000 mg/kg - 2,2,4-Trimethylpentane >2000 mg/kg - Cyclohexane >2000 mg/kg - 2-Methyl-2-butene 12196 mg/kg - Toluene 15800 mg/kg – Ethanol
Skin corrosion/irritation:	mixture is classified as irritating to skin
Serious eye damage/irritation:	mixture is classified as irritating to eye
Respiratory or skin sensitisation:	does not contain these substances (or less than the classification limit).
Carcinogenicity:	does not contain these substances (or less than the classification limit). NOAEC: 4522 mg/m ³ - toluene
Germ cell mutagenicity:	does not contain these substances (or less than the classification limit). genetic toxicity: negative - toluene
Reproductive toxicity:	mixture is classified as toxic for reproduction, category 2. Suspected of damaging the unborn child.
STOT – single exposure:	mixture is classified as specific target organ toxicity - single exposure, category 3. May cause drowsiness or dizziness.
STOT – repeated exposure:	mixture is classified as specific target organ toxicity - repeated exposure, category 2. May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard:	mixture is classified as aspiration hazard. It can be fatal if swallowed and enters airways. The mixture contains a substance with low viscosity. When aspiration: pulmonary edema, aspiration tract may occur collapse and death.
Other information: See section 2 and 4.	

SECTION 12: Ecological information

12.1 Toxicity:

Hazardous ingredients: No hazardous ingredients

12.2 Persistence and degradability:

Biodegradable.

12.3 Bioaccumulative potential

No bioaccumulation potential.

12.4 Mobility in soil:

Readily adsorbed into soil.

12.5 Results of PBT and vPvB assessment:

This product is not identified as a PBT/vPvB substance.

12.6 Other adverse effects: Negligible ecotoxicity.



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SECTION 13: Disposal considerations

13.1 Waste treatment methods:

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

Recovery operations: Use principally as a fuel or other means to generate energy.

Waste code number: 13 07 02

Disposal of packaging: Arrange for collection by specialised disposal company.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

SECTION 14: Transport Information

14.1 UN number:	UN1268
14.2 UN proper shipping name:	
- ADR/RID/IMDG/IATA	PETROLEUM DISTILLATES
14.3 Transport hazard class(es):	3
14.4 Packing group:	II
14.5 Environmental hazards:	Yes
Marine pollutant:	No
14.6 Special precautions for user:	none
ADR/RID:	
- tunnel restriction code	D/E
- transport category	2

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

Regulation No. 1907/2006/ES, REACH.

Regulation No. 1272/2008/ES, CLP.

15.2 Chemical safety assessment:

A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

SECTION 16: Other information

This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830.



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List of H-phrases:

H225: Highly flammable liquid and vapour.

H226: Flammable liquid and vapour.

H302: Harmful if swallowed.

H304: May be fatal if swallowed and enters airways.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H336: May cause drowsiness or dizziness.

H340: May cause genetic defects <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

H341: Suspected of causing genetic defects.

H350: May cause cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

H351: Suspected of causing cancer.

H361d: Suspected of damaging the unborn child.

H373: May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

H400: Very toxic to aquatic life

H410: Very toxic to aquatic life with long-lasting effects.

H411: Toxic to aquatic life with long-lasting effects.

Legal disclaimer:

The company shall not be held liable for any damages resulting from misuse of the above mentioned product. Misuse being the failure to fully comply with all instructions set out according to the safety data sheet.

Training advice:

According to MSDS.

Other information:

Classification according to data from manufacturer. This substance isn't subject to harmonized classification.

Disclaimer of liability:

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