



## Safety Data Sheet

Date of Issue: 01.12.2020

Date of Expiry: 01.12.2025

### 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Distributor Name : **ECP Limited**  
Address : PO Box 34125, Birkenhead, Auckland 0746  
Telephone : +64 9 480 4386  
Facsimile : +64 9 480 4385  
Emergency phone number : 0800 243 622 (24 hours)

Supplier Name : **Avantor Performance Materials, Inc**  
Address : 3477 Corporate Parkway, Suite 200  
Center Valley, PA 18034  
Phone : 855-282-6867

<b>Product</b>	<b>2,2,4-Trimethylpentane</b>			<b>Code</b>	<b>V559</b>
<b>CAS#</b>	<b>HSNO#</b>	<b>UN #</b>	<b>DG Class/es</b>	<b>Packing group #</b>	
108-88-3	HSR001227	1294	3	II	

**Recommended use** : Laboratory Investigations

### 2: Hazards identification

GHS Label elements, including precautionary statements



Pictogram

**Signal word** Danger

**Hazard statement(s)**

H225 Highly flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statement(s)**

**Prevention**

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ ventilating/ lighting equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P264 Wash skin thoroughly after handling.  
P273 Avoid release to the environment. 1

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

### Response

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing.

Rinse skin with water/ shower.

P321 Specific treatment

P331 Do NOT induce vomiting.

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

P391 Collect spillage.

### Storage

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

### Disposal

P501 Dispose of contents/ container to an approved waste disposal plant.

### 2.3 Other hazards – none

### Environmental Protection Authority (New Zealand)

*HSNO Classifications- Health Hazards*

**Classification 3.1B** Flammable Liquids: high hazard

**Classification 6.1E (All)** Acutely toxic

**Classification 6.3B** Mildly irritating to the skin

**Classification 6.4A** Irritating to the eye

**Classification 9.1A (All)** Very ecotoxic in the aquatic environment

### 3: Composition/information on ingredients

Synonyms : Isooctane

Formula : C<sub>8</sub>H<sub>18</sub>

Molecular weight : 114.23 g/mol

CAS-No. : 540-84-1

EC-No. : 208-759-1

Index-No. : 601-009-00-8

### Hazardous components

Component	Classification	Concentration
<b>2,2,4-Trimethylpentane</b>		
	3.1 B; 6.1 E; 6.3 A; 9.1 A; H225, H304, H315, H410 Concentration limits:	<= 100 %
	>= 20 %: STOT SE 3, H336; M-Factor - Aquatic Acute: 10	

## 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

#### Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Flush eyes with water as a precaution.

#### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling

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

No data available

## 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Small (incipient) fires must be extinguished with alcohol resistant foam, dry chemical powder or carbon dioxide. Large amounts of water are ineffective. Cool containers with large amounts of water. Dry powder  
Dry sand

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given. Do NOT use water jet.

### 5.2 Special hazards arising from the substance or mixture

Carbon oxides  
Combustible.

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.4 Further information

Use water spray to cool unopened containers.

## 6: Accidental release measures

### 6.1 Personal precautions, protective equipment, and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist, or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### 6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand,

earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations

#### 6.4 Reference to other sections

For disposal see section 13.

### 7: Handling and storage

#### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge.

#### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

#### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

### 8: Exposure controls/personal protection

#### 8.1 Control parameters

Components with workplace control parameters

#### 8.2 Exposure controls

##### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

##### Personal protective equipment

##### Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Handle with gloves. 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.

##### Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

### 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

a) Appearance Form:	liquid
Colour:	colourless
b) Odour	No data available
c) Odour Threshold	No data available

d) pH No	data available
e) Melting point/freezing point	
Melting point/range:	-107 °C
f) Initial boiling point and boiling range	98 - 99 °C
g) Flash point	-12 °C - closed cup
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	
Upper explosion limit:	6 %(V)
Lower explosion limit:	1 %(V)
k) Vapour pressure	55 hPa at 21 °C
	117 hPa at 37.80 °C
l) Vapour density	3.94 - (Air = 1.0)
m) Relative density	0.692 g/mL at 25 °C
n) Water solubility insoluble	
o) Partition coefficient: n-octanol/water	
log Pow:	4.6 - Bioaccumulation is not expected.
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available
<b>9.2 Other safety information</b>	
Relative vapour density	3.94 - (Air = 1.0)

## 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 data available

### 10.4 Conditions to avoid

Heat, flames, and sparks.

### 10.5 Incompatible materials

Strong oxidizing agents

### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides  
Other decomposition products - No data available

## 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - male and female - > 5,000 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h - > 33.52 mg/l

(OECD Test Guideline 403)

LD50 Dermal - Rabbit - male and female - > 2,000 mg/kg

(OECD Test Guideline 402)

**Skin corrosion/irritation**

Skin - Rabbit

Result: Irritating to skin. - 24 h  
(OECD Test Guideline 404)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)  
Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

**Serious eye damage/eye irritation**

Eyes - Rabbit

Result: No eye irritation  
(OECD Test Guideline 405)

**Respiratory or skin sensitisation**

Maximisation Test - Guinea pig

Result: negative  
(OECD Test Guideline 406)

**Germ cell mutagenicity**

Ames test

TA98

Result: negative

In vitro mammalian cell gene mutation test  
human lymphoblastoid cells

Result: negative

OECD Test Guideline 486

Rat - male - Liver cells

Result: negative

**Carcinogenicity**

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

May cause drowsiness or dizziness. - Central nervous system

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Acute inhalation toxicity - mucosal irritations

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

Aspiration hazard, Aspiration may cause pulmonary oedema and pneumonitis.

**Additional Information**

RTECS: SA3320000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**12: Ecological information****12.1 Toxicity**

*Toxicity to fish* semi-static test LC50 - *Oncorhynchus mykiss* (rainbow trout) - 0.11

mg/l - 96 h  
(OECD Test Guideline 203)

*Toxicity to daphnia and other aquatic invertebrates*

static test EC50 - Daphnia magna (Water flea) - 0.4 mg/l - 48 h  
Remarks: (in analogy to similar products) (ECHA)

*Toxicity to bacteria*

EC0 - Pseudomonas putida - 10,000 mg/l  
Remarks: (IUCLID)

## 12.2 Persistence and degradability

Biodegradability

aerobic - Exposure time 28 d  
Result: 51.3 % - Inherently biodegradable.  
(OECD Test Guideline 301F)

## 12.3 Bioaccumulative potential

No data available

## 12.4 Mobility in soil

No data available

## 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

## 12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects.

Biological effects:

Endangers drinking-water supplies if allowed to enter soil and/or waters in large quantities.

Discharge into the environment must be avoided.

## 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

#### Contaminated packaging

Dispose of as unused product.

## 14: Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	1262	1262	1262
14.2	UN Proper Shipping name	OCTANES	OCTANES	OCTANES
14.3	Transport Hazard Class	3	3	3
14.4	Packaging group	II	II	II
14.5	Environmental Hazards	yes	yes	NO
14.6	Special precautions for user	None		
14.7	Incompatible materials	Strong oxidizing agents		

## 15: Regulatory information

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

#### National regulatory information

HSNO Approval Code: HSR001176

HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits

Group Standard 2006

Tracking Required: not required

Approved Handler Cert.: not required

#### Notification status

AICS: On the inventory, or in compliance with the inventory

DSL: All components of this product are on the Canadian DSL

ENCS: On the inventory, or in compliance with the inventory

ISHL: On the inventory, or in compliance with the inventory

KECI: On the inventory, or in compliance with the inventory

NZIoC: On the inventory, or in compliance with the inventory

PICCS: On the inventory, or in compliance with the inventory

## 16: Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party 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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