

## MATERIAL SAFETY DATA SHEET

[www.britisscientific.com](http://www.britisscientific.com)

Issue Date:

### 1- Chemical Product Information and Company Identification.

**Product Name:** : Isooctane for HPLC, ChromSolv<sup>®</sup>.  
**Synonym:** : 2,2,4-Trimethylpentane.  
**Product code:** : BS14407.  
**CAS Number:** : 540-84-1.  
**Company Name:** : Briti Scientific.  
**Company Address:** : Plot No:78/B/13, SY-79,Phase-VI, Jeedimetla,Hyderabad-500 055.  
Telangana, India.

### Section 2- Composition / Information on Ingredients.

CAS No.	Chemical Name	Mol. Formula
540-84-1.	2,2,4-Trimethylpentane.	C <sub>8</sub> H <sub>18</sub>

### Section 3- Hazards Identification.

#### Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 2), H225

Skin irritation (Category 2), H315

Specific target organ toxicity - single exposure (Category 3), H336

Aspiration hazard (Category 1), H304

Acute aquatic toxicity (Category 1), H400

Chronic aquatic toxicity (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

F Highly flammable R11

Xn Harmful R65

Xi Irritant R38

R67

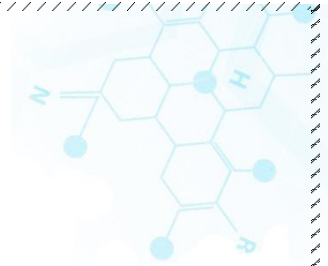
N Dangerous for the R50/53

environment

For the full text of the R-phrases mentioned in this Section, see Section 16

#### Label elements





## Labelling according Regulation (EC) No 1272/2008

### 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.

H336 May cause drowsiness or dizziness.

H410 Very toxic to aquatic life with long lasting effects.

### Precautionary statement(s)

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

P261 Avoid breathing vapours.

P273 Avoid release to the environment.

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

P331 Do NOT induce vomiting.

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

**Supplemental Hazard Statements** none

## Section 4- First Aid Measures.

### 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

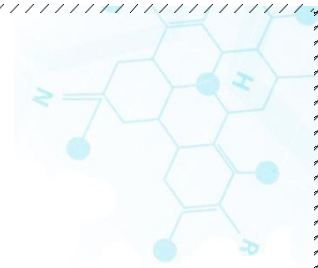
Flush eyes with water as a precaution.

#### If swallowed

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

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





The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**Indication of any immediate medical attention and special treatment needed** no data available

## **Section 5- Fire Fighting Measures.**

### **Extinguishing media**

#### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

Carbon oxides

#### **Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

#### **Further information**

Use water spray to cool unopened containers.

## **Section 6- Accidental Release Measures.**

### **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.

For personal protection see section 8.

### **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.

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

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

### **Reference to other sections**

For disposal see section 13.

## **Section 7- Handling and Storage.**

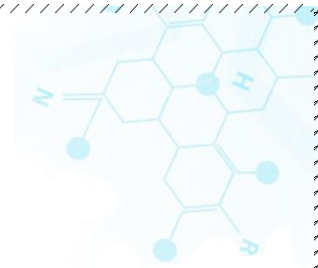
### **Precautions for safe handling**

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.

For precautions see section 2.2





### Conditions for safe storage, including any incompatibilities

Store in cool place. 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.

**Specific end use(s)** Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## Section 8- Exposure Control/Personal Protection.

### Control parameters

#### Components with workplace control parameters

#### 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 full-face 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. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Control of environmental exposure

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

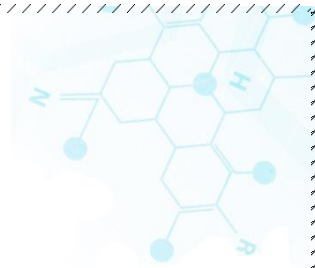
## Section 9- Physical and Chemical Properties.

Information on basic physical and chemical properties

a) Appearance Form: Colorless clear liquid.

b) Odour no data available





- c) Odour Threshold no data available
  - d) pH no data available
  - e) Melting point/freezing point -107 °C.
  - f) Initial boiling point and boiling range 99 °C at 1.013 hPa
  - g) Flash point -12 °C - closed cup
  - h) Evapouration rate no data available
  - i) Flammability (solid, gas) no data available
  - j) Upper/lower Upper explosion limit: 6 %(V) flammability or Lower explosion limit: 1 %(V) explosive limits
  - 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 0.690 g/cm<sup>3</sup>
  - n) Water solubility insoluble
  - o) Partition coefficient: n- log Pow: 4,6 octanol/water
  - 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
- 9.2 Other safety information  
Relative vapour density 3.94 - (Air = 1.0)

## Section 10- Stability and Reactivity.

### **Reactivity**

no data available

### **Chemical stability**

Stable under recommended storage conditions.

### **Possibility of hazardous reactions**

no data available

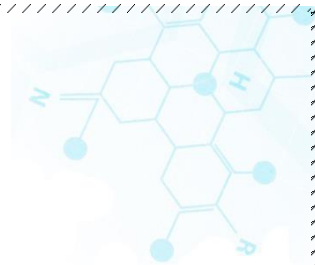
### **Conditions to avoid**

Heat, flames and sparks. Extremes of temperature and direct sunlight.

### **Incompatible materials**

Strong oxidizing agents





## Hazardous decomposition products

In the event of fire: see section 5

## Section 11- Toxicological Information.

### Information on toxicological effects

#### Acute toxicity

LD50 Oral - rat - > 5.000 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - rat - 4 h - > 33,52 mg/l

(OECD Test Guideline 403)

LD50 Dermal - rabbit - > 2.000 mg/kg

(OECD Test Guideline 402)

#### Skin corrosion/irritation

no data available

Skin - rabbit

Result: Irritating to skin.

(OECD Test Guideline 404)

#### Serious eye damage/eye irritation

Eyes - rabbit

Result: No eye irritation

(OECD Test Guideline 405)

#### Respiratory or skin sensitisation

no data available

#### Germ cell mutagenicity

rat

Unscheduled DNA synthesis

#### 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.

#### Specific target organ toxicity - repeated exposure

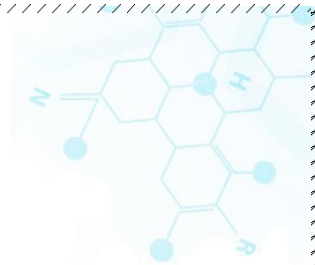
no data available

#### Aspiration hazard

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it

causes a human aspiration toxicity hazard.





### Additional Information

RTECS: Not available

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

Liver - Irregularities - Based on Human Evidence

### Section 12- Ecological Information.

#### Toxicity

no data available

#### Persistence and degradability

Biodegradability Result: - Biodegradable

#### Bioaccumulative potential

#### Mobility in soil

no data available

#### Results of PBT and vPvB assessment

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

#### Other adverse effects

Very toxic to aquatic life with long lasting effects.

### Section 13- Disposal Considerations.

#### Waste treatment methods

#### Product

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

#### Contaminated packaging

Dispose of as unused product.

### Section 14- Transport Information.

#### Transport information

##### 14.1 UN number

ADR/RID: 1262 IMDG: 1262 IATA: 1262

##### 14.2 UN proper shipping name

ADR/RID: OCTANES

IMDG: OCTANES

IATA: Octanes

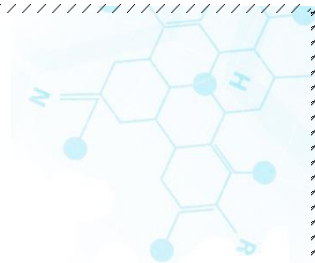
##### 14.3 Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

##### 14.4 Packaging group

ADR/RID: II IMDG: II IATA: II





#### 14.5 Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: no

#### 14.6 Special precautions for user

no data available

### Section 15- Regulatory Information.

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

no data available

#### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

### Section 16- Other Information.

Briti Scientific provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

