

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : 4-Methylheptane

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

According to Regulation (EC) No1272/2008

Flammable liquids (Category 2)

Skin irritation (Category 2)

Specific target organ toxicity - single exposure (Category 3)

Aspiration hazard (Category 1)

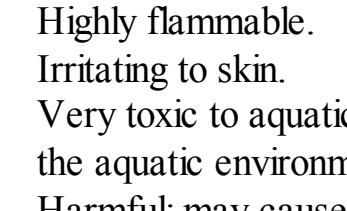
Acute aquatic toxicity (Category 1)

According to European Directive 67/548/EEC as amended.

Highly flammable. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Vapours may cause drowsiness and dizziness. Irritating to skin. Harmful; may cause lung damage if swallowed.

Label elements

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.

H400

Very toxic to aquatic life.

Precautionary statement(s)

P210

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

P261

Avoid breathing dust/fume/gas/mist/vapours/spray.

P273

Avoid release to the environment.

P301 + P310

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

P331

Do NOT induce vomiting.

Hazard symbol(s)

N

Dangerous for the environment

F

Highly flammable

Xn

Harmful

R-phrase(s)

R11

Highly flammable.

R38

Irritating to skin.

R50/53

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65

Harmful; may cause lung damage if swallowed.

R67

Vapours may cause drowsiness and dizziness.

S-phrase(s)

S9

Keep container in a well-ventilated place.

S16

Keep away from sources of ignition - No smoking.

S29

Do not empty into drains.

S33

Take precautionary measures against static discharges.

S60

This material and its container must be disposed of as hazardous waste.

S61

Avoid release to the environment. Refer to special instructions/ Safety data sheets.

S62

If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C8H18

Molecular Weight : 114,23 g/mol

CAS-No.	EC-No.	Classification	Concentration
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4-Methylheptan e

589-53-7

209-650-1

Flam. Liq. 2; Skin Irrit. 2;

STOT SE 3; Asp. Tox. 1;

Aquatic Acute 1; H225, H304,

H315, H336, H400

F, Xn, N, R11 - R38 - R65 -

R67 - R50/53

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

4. 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

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

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

Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapors, 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.

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 non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

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.

Conditions for safe storage

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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

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).

Hand protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Handle with gloves.

Eye protection

Face shield and safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form : clear, liquid

Colour : colourless

Safety data

pH : no data available

Melting point : -121 °C - lit.

Boiling point : 117 - 118 °C - lit.

Flash point : 4 °C - closed cup

Ignition temperature : no data available

Lower explosion limit : 0,98 % (V)

Vapour pressure : 53,074 hPa at 37,7 °C

Density : 0,705 g/cm3 at 25 °C

Water solubility : no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

Strong oxidizing agents, Alkali metals

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

GERM cell mutagenicity

no data available

Carcinogenicity

no data available

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.

WHO: No component of this product present at levels greater than or equal to 0,1% is identified as probably carcinogenic to humans.

EU: No component of this product present at levels greater than or equal to 0,1% is identified as probably carcinogenic to humans.

US NTP: No component of this product present at levels greater than or equal to 0,1% is identified as probably carcinogenic to humans.

Other: No component of this product present at levels greater than or equal to 0,1% is identified as probably carcinogenic to humans.

EU: No component of this product present at levels greater than or equal to 0,1% is identified as possibly carcinogenic to humans.