

# SAFETY DATA SHEET

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

1.1 Product identifiers

Product name: Dimethylbenzene (Xylene)

CAS-No.: 1330-20-7
Product Number: F80703

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

Identified uses: Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company: Philip Harris Ltd., 2 Gregory Street, Hyde, Cheshire, SK14 4HR,

**UNITED KINGDOM** 

Telephone: +44 (0)845 1200 506 Fax: +44 (0)161 367 2140

Email: enquiries@philipharris.co.uk

1.4 Emergency telephone number

Emergency Phone #: +44 (0)845 1200 506

# 2. HAZARDS IDENTIFICATION

# 2.1 Classification of the substance or mixture

According to Regulation (EC) No1272/2008; Acute toxicity, Inhalation (Category 4), Acute toxicity, Dermal (Category 4), Flammable liquids (Category 3), Skin irritation (Category 2)

According to European Directive 67/548/EEC as amended: Flammable. Irritating to skin. Harmful by inhalation and in contact with skin.

## 2.2 Label elements





Pictogram

Signal word Warning

**Hazard statement(s):** H315 Causes skin irritation. H226 Flammable liquid and vapour. H312 Harmful in contact with skin. H332 Harmful if inhaled.

**Precautionary statement(s):** P280 Wear protective gloves/protective clothing.



Hazard symbol(s):

R-phrase(s): R10 Flammable. R20/21 Harmful by inhalation and in contact with skin. R38 Irritating to

skin.

S-phrase(s): S25 Avoid contact with eyes.

#### 2.3 Other hazards - no data available.

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

Xylene (Synonyms: Xylene mixture of isomers)

Formula: C<sub>8</sub>H<sub>10</sub>

Molecular Weight: 106.17

CAS-No.: 1330-20-7

EC-No.: 215-535-7

Index-No.: 601-022-00-9

#### 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.

In case of skin contact: Wash off with soap and plenty of water.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.

If swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Rinse mouth with water.

- 4.2 Most important symptoms and effects, both acute and delayed: no data available
- 4.3 Indication of immediate medical attention and special treatment needed: no data available

# 5. FIRE-FIGHTING MEASURES

# 5.1 Extinguishing media

**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.

- 5.2 Special hazards arising from the substance or mixture: no data available
- **5.3** *Precautions for fire-fighters:* Wear self contained breathing apparatus for fire fighting 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 vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
- **6.2** Environmental precautions: Do not let product enter drains.

- **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 (see section 13). Keep in suitable, closed containers for disposal.
- **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: Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
- 7.3 Specific end uses: no data available.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

# 8.1 Control parameters

Components with workplace control parameters

| Component | CAS No.   | Value | Control Parameters          | Update                  |
|-----------|-----------|-------|-----------------------------|-------------------------|
| Xylene    | 1330-20-7 | TWA   | 50ppm 220mg/m <sup>3</sup>  | 2005-04-06 <sup>1</sup> |
| Xylene    | 1330-20-7 | STEL  | 100ppm 441mg/m <sup>3</sup> | 2005-04-06 <sup>1</sup> |
| Xylene    | 1330-20-7 | TWA   | 50ppm 221mg/m <sup>3</sup>  | 2000-06-01 <sup>2</sup> |
| Xylene    | 1330-20-7 | STEL  | 100ppm 442mg/m <sup>3</sup> | 2000-06-01 <sup>2</sup> |

<sup>&</sup>lt;sup>1</sup>UK. EH40 Occupational Exposure Limits. Remarks Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.

## 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.

**Skin 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.

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

**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

<sup>&</sup>lt;sup>2</sup>Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values Identifies the possibility of significant uptake through the skin. Indicative

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

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

## 9.1 Information on basic physical and chemical properties

a) Appearance: Form: Liquid Colour: Clear / Colourless

b) Odour:

c) Odour Threshold:

no data available

no data available

no data available

e) Melting/freezing point: Melting point/range: no data available

f) Initial boiling point and boiling range: 136 - 140 °C at 1,013 hPa

g) Flash point: 25 °C - closed cup h) Evaporation rate: no data available i) Flammability (solid, gas): no data available

j) Upper/lower flammability or explosive limits: 1.1-7%(V)

k) Vapour pressure: 24 hPa at 37.70 °C
l) Vapour density: 3.67 - (Air = 1.0)
m) Relative density: 0.865 g/cm3 at 20 °C
n) Water solubility: no data available

o) Partition coefficient: n-octanol/water: no data available

p) Autoignition temperature: 464 °C

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: no data available

## 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: formed under fire conditions. - Carbon oxides

# 11. TOXICOLOGICAL INFORMATION

# 11.1 Information on toxicological effects

Acute toxicity: LD50 Oral - rat - 4,300 mg/kg

Remarks: Liver: Other changes. Kidney, Ureter, Bladder: Other changes.

LD50 Dermal - rabbit - > 1,700 mg/kg

Skin corrosion/irritation: Skin - rabbit - Skin irritation - 24 h

Serious eye damage/eye irritation: Eyes - rabbit - Mild eye irritation

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no data available

Carcinogenicity: This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification. IARC: 3 - Group 3: Not

classifiable as to its carcinogenicity to humans (Xylene)

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

#### Potential health effects

**Inhalation** Harmful if inhaled. May cause respiratory tract irritation.

**Ingestion** May be harmful if swallowed.

**Skin** Harmful if absorbed through skin. Causes skin irritation.

**Eyes** May cause eye irritation.

**Signs and Symptoms of Exposure:** Blurred vision, Incoordination., Headache, Nausea, Vomiting, Dizziness, Weakness, anemia, Prolonged or repeated exposure to skin causes defatting and

dermatitis.

Additional Information: RTECS: ZE2100000

## 12. ECOLOGICAL INFORMATION

12.1 Toxicity: Toxicity to fish LC50 - Morone saxatilis - 2 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates.

EC50 - Daphnia magna (Water flea) - 75.49 mg/l - 24 h

Toxicity to algae Growth inhibition EC50 - Pseudokirchneriella subcapitata - 72 mg/l - 14 d

- 12.2 Persistence and degradability: no data available
- 12.3 Bioaccumulative potential: no data available
- 12.4 Mobility in soil: no data available
- 12.5 Results of PBT and vPvB assessment: no data available
- 12.6 Other adverse effects: no data available

#### 13. DISPOSAL CONSIDERATIONS

#### 13.1 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. This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging: Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN-Number

ADR/RID: 1307 IMDG: 1307 IATA: 1307

14.2 UN proper shipping name

ADR/RID: XYLENES
IMDG: XYLENES
IATA: XYLENES

14.3 Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

14.4 Packaging group

ADR/RID: III IMDG: III IATA: III

14.5 Environmental hazards

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

14.6 Special precautions for users: EMS-No: F-E, S-D

## 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: no data available

## 16. OTHER INFORMATION

Acute Tox. Acute toxicity

Flam. Liq. Flammable liquids

H226 Flammable liquid and vapour.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H332 Harmful if inhaled.

Skin Irrit. Skin irritation

Xn Harmful

R10 Flammable.

R20/21 Harmful by inhalation and in contact with skin.

R38 Irritating to skin.