

Creation Date 15-Jun-2010

Revision Date 02-May-2025

Revision Number 5

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

|                           |                        |
|---------------------------|------------------------|
| Product Description:      | <b><u>o-Xylene</u></b> |
| Cat No. :                 | <b>22902</b>           |
| Synonyms                  | 1,2-Dimethylbenzene    |
| Index No                  | 601-022-00-9           |
| CAS No                    | 95-47-6                |
| EC No                     | 202-422-2              |
| Molecular Formula         | C8 H10                 |
| REACH registration number | 01-2119485822-30-0041  |

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

|                                |                                                                                             |
|--------------------------------|---------------------------------------------------------------------------------------------|
| Recommended Use                | Laboratory chemicals.                                                                       |
| Sector of use                  | SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites    |
| Product category               | PC21 - Laboratory chemicals                                                                 |
| Process categories             | PROC15 - Use as a laboratory reagent                                                        |
| Environmental release category | ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates) |
| Uses advised against           | No Information available                                                                    |

### 1.3. Details of the supplier of the safety data sheet

|         |                                                                                                                                                                                                              |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Company | Avocado Research Chemicals Ltd.<br>(Part of Thermo Fisher Scientific)<br>Shore Road, Heysham<br>Lancashire, LA3 2XY,<br>United Kingdom<br>Office Tel: +44 (0) 1524 850506<br>Office Fax: +44 (0) 1524 850608 |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                |                                |
|----------------|--------------------------------|
| E-mail address | begel.sdsdesk@thermofisher.com |
|----------------|--------------------------------|

### 1.4. Emergency telephone number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

**GHS Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567**

**Physical hazards**

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|                                                    |                   |
|----------------------------------------------------|-------------------|
| Flammable liquids                                  | Category 3 (H226) |
| <b><u>Health hazards</u></b>                       |                   |
| Aspiration Toxicity                                | Category 1 (H304) |
| Acute dermal toxicity                              | Category 4 (H312) |
| Acute Inhalation Toxicity - Vapors                 | Category 4 (H332) |
| Skin Corrosion/Irritation                          | Category 2 (H315) |
| Serious Eye Damage/Eye Irritation                  | Category 2 (H319) |
| Specific target organ toxicity - (single exposure) | Category 3 (H335) |
| <b><u>Environmental hazards</u></b>                |                   |
| Chronic aquatic toxicity                           | Category 3 (H412) |

Full text of Hazard Statements: see section 16

## 2.2. Label elements



Signal Word

Danger

## Hazard Statements

H226 - Flammable liquid and vapor  
H304 - May be fatal if swallowed and enters airways  
H312 + H332 - Harmful in contact with skin or if inhaled  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H335 - May cause respiratory irritation  
H412 - Harmful 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  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting  
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower  
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor

## 2.3. Other hazards

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB)

Toxic to terrestrial vertebrates

This product does not contain any known or suspected endocrine disruptors

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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## 3.1. Substances

| Component | CAS No  | EC No             | Weight % | GHS Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567                                                                                                |
|-----------|---------|-------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| o-Xylene  | 95-47-6 | EEC No. 202-422-2 | >95      | Flam. Liq. 3 (H226)<br>Asp. Tox. 1 (H304)<br>Acute Tox. 4 (H312)<br>Acute Tox. 4 (H332)<br>Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)<br>STOT SE 3 (H335)<br>Aquatic Chronic 3 (H412) |

|                           |                       |
|---------------------------|-----------------------|
| REACH registration number | 01-2119485822-30-0041 |
|---------------------------|-----------------------|

Full text of Hazard Statements: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

|                                    |                                                                                                                                                                                                     |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General Advice                     | If symptoms persist, call a physician.                                                                                                                                                              |
| Eye Contact                        | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.                                                                                     |
| Skin Contact                       | Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.                                                                                   |
| Ingestion                          | Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Call a physician or poison control center immediately. If vomiting occurs naturally, have victim lean forward. |
| Inhalation                         | Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur. Risk of serious damage to the lungs (by aspiration).                                   |
| Self-Protection of the First Aider | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.                                                    |

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

Difficulty in breathing. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

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

|                    |                                                 |
|--------------------|-------------------------------------------------|
| Notes to Physician | Treat symptomatically. Symptoms may be delayed. |
|--------------------|-------------------------------------------------|

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### Suitable Extinguishing Media

Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.

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## **Extinguishing media which must not be used for safety reasons**

Water may be ineffective. Do not use a solid water stream as it may scatter and spread fire.

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

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

## **Hazardous Combustion Products**

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>).

## **5.3. Advice for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

Use personal protective equipment as required. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.

### **6.2. Environmental precautions**

Should not be released into the environment. See Section 12 for additional Ecological Information. Avoid release to the environment. Collect spillage. Do not flush into surface water or sanitary sewer system.

### **6.3. Methods and material for containment and cleaning up**

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

### **6.4. Reference to other sections**

Refer to protective measures listed in Sections 8 and 13.

## **SECTION 7: HANDLING AND STORAGE**

### **7.1. Precautions for safe handling**

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Take precautionary measures against static discharges.

## **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

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

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. Flammables area.

**Technical Rules for Hazardous Substances (TRGS) 510**  
**Storage Class (LGK) (Germany)**

Class 3

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## 7.3. Specific end use(s)

Use in laboratories

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure limits

List source(s): **EU** - Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC **UK** - EH40/2005 Work Exposure Limits, Fourth edition. Published 2020. **IRE** - 2021 Code of Practice for the Chemical Agents Regulations, Schedule 1. Published by the Health and Safety Authority

| Component | The United Kingdom                                                                                                        | European Union                                                                                                              | Ireland                                                                                                                     |
|-----------|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| o-Xylene  | STEL: 100 ppm 15 min<br>STEL: 441 mg/m <sup>3</sup> 15 min<br>TWA: 50 ppm 8 hr<br>TWA: 220 mg/m <sup>3</sup> 8 hr<br>Skin | TWA: 50 ppm (8h)<br>TWA: 221 mg/m <sup>3</sup> (8h)<br>STEL: 100 ppm (15min)<br>STEL: 442 mg/m <sup>3</sup> (15min)<br>Skin | TWA: 50 ppm 8 hr.<br>TWA: 221 mg/m <sup>3</sup> 8 hr.<br>STEL: 100 ppm 15 min<br>STEL: 442 mg/m <sup>3</sup> 15 min<br>Skin |

#### Biological limit values

List source(s): **UK** - Biological Monitoring Guidance Values provided by the UK's Health and Safety Executive (HSE) Control of Substances Hazardous to Health Regulations (COSHH) 2002 (as amended) and EH40/2005.

| Component | United Kingdom                                                    | European Union |
|-----------|-------------------------------------------------------------------|----------------|
| o-Xylene  | Methyl hippuric acid: 650 mmol/mol<br>creatinine urine post shift |                |

#### Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

See table for values

#### Predicted No Effect Concentration (PNEC)

See values below.

### 8.2. Exposure controls

#### Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting equipment.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

#### Personal protective equipment

##### Eye Protection

Goggles (European standard - EN 166)

##### Hand Protection

Protective gloves

| Glove material | Breakthrough time | Glove thickness | EU standard | Glove comments                                                                 |
|----------------|-------------------|-----------------|-------------|--------------------------------------------------------------------------------|
| Viton (R)      | > 480 minutes     | 0.3 mm          | EN 374      | As tested under EN374-3 Determination of Resistance to Permeation by Chemicals |
| PVA            | > 360 minutes     | 0.3 mm          |             |                                                                                |

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|                                                        |              |         |
|--------------------------------------------------------|--------------|---------|
| Nitrile rubber                                         | < 40 minutes | 0.38 mm |
| Neoprene                                               | < 37 minutes | 0.45 mm |
| <b>Skin and body protection</b> Long sleeved clothing. |              |         |

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.

(Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

## Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

## Large scale/emergency use

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

**Recommended Filter type:** Organic gases and vapours filter Type A Brown conforming to EN14387

## Small scale/Laboratory use

Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Recommended half mask:-** Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141

When RPE is used a face piece Fit Test should be conducted

## Environmental exposure controls

Prevent product from entering drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

|                                                |                                                |                                          |
|------------------------------------------------|------------------------------------------------|------------------------------------------|
| <b>Physical State</b>                          | Liquid                                         |                                          |
| <b>Appearance</b>                              | Colorless                                      |                                          |
| <b>Odor</b>                                    | aromatic                                       |                                          |
| <b>Odor Threshold</b>                          | No data available                              |                                          |
| <b>Melting Point/Range</b>                     | -25 °C / -13 °F                                |                                          |
| <b>Softening Point</b>                         | No data available                              |                                          |
| <b>Boiling Point/Range</b>                     | 143 - 145 °C / 289.4 - 293 °F                  |                                          |
| <b>Flammability (liquid)</b>                   | Flammable                                      | On basis of test data                    |
| <b>Flammability (solid,gas)</b>                | Not applicable                                 | Liquid                                   |
| <b>Explosion Limits</b>                        | <b>Lower</b> 1.7 Vol%<br><b>Upper</b> 7.6 Vol% |                                          |
| <b>Flash Point</b>                             | 31 °C / 87.8 °F                                | <b>Method -</b> No information available |
| <b>Autoignition Temperature</b>                | 465 °C / 869 °F                                |                                          |
| <b>Decomposition Temperature</b>               | No data available                              |                                          |
| <b>pH</b>                                      | Not applicable                                 |                                          |
| <b>Viscosity</b>                               | 0.81 mPas @ 20°C                               |                                          |
| <b>Water Solubility</b>                        | 0.2 g/L (20°C)                                 | practically insoluble                    |
| <b>Solubility in other solvents</b>            | No information available                       |                                          |
| <b>Partition Coefficient (n-octanol/water)</b> |                                                |                                          |
| <b>Component</b>                               | <b>log Pow</b>                                 |                                          |
| o-Xylene                                       | 3.12                                           |                                          |
| <b>Vapor Pressure</b>                          | 882 Pa @ 25 °C                                 |                                          |
| <b>Density / Specific Gravity</b>              | 0.884                                          |                                          |
| <b>Bulk Density</b>                            | Not applicable                                 | Liquid                                   |

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Vapor Density 3.7 (Air = 1.0)  
Particle characteristics Not applicable (liquid)

## 9.2. Other information

Molecular Formula C<sub>8</sub>H<sub>10</sub>  
Molecular Weight 106.17  
Explosive Properties explosive air/vapour mixtures possible  
Evaporation Rate 0.7 - (Ether = 1.0)

## SECTION 10: STABILITY AND REACTIVITY

**10.1. Reactivity** None known, based on information available

**10.2. Chemical stability** Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Hazardous Polymerization Hazardous polymerization does not occur.  
Hazardous Reactions None under normal processing.

**10.4. Conditions to avoid** Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition.

**10.5. Incompatible materials** Strong oxidizing agents. Strong acids.

**10.6. Hazardous decomposition products** Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Product Information

(a) acute toxicity;  
Oral Based on available data, the classification criteria are not met  
Dermal Category 4  
Inhalation Category 4

| Component | LD50 Oral                 | LD50 Dermal          | LC50 Inhalation             |
|-----------|---------------------------|----------------------|-----------------------------|
| o-Xylene  | LD50 = 3608 mg/kg ( Rat ) | 14100 mg/kg (Rabbit) | LC50 = 4330 ppm ( Rat ) 6 h |

(b) skin corrosion/irritation; Category 2

(c) serious eye damage/irritation; Category 2

(d) respiratory or skin sensitization;  
Respiratory Based on available data, the classification criteria are not met

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|                                                   |                                                                                                                               |
|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Skin</b>                                       | Based on available data, the classification criteria are not met                                                              |
| <b>(e) germ cell mutagenicity;</b>                | Based on available data, the classification criteria are not met                                                              |
| <b>(f) carcinogenicity;</b>                       | Based on available data, the classification criteria are not met<br>There are no known carcinogenic chemicals in this product |
| <b>(g) reproductive toxicity;</b>                 | Based on available data, the classification criteria are not met                                                              |
| <b>(h) STOT-single exposure;</b>                  | Category 3                                                                                                                    |
| <b>Results / Target organs</b>                    | Respiratory system.                                                                                                           |
| <b>(i) STOT-repeated exposure;</b>                | Based on available data, the classification criteria are not met                                                              |
| <b>Target Organs</b>                              | None known.                                                                                                                   |
| <b>(j) aspiration hazard;</b>                     | Category 1                                                                                                                    |
| <b>Symptoms / effects, both acute and delayed</b> | Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.                                          |

## 11.2. Information on other hazards

**Endocrine Disrupting Properties** Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecotoxicity effects** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do not empty into drains. The product contains following substances which are hazardous for the environment.

| Component | Freshwater Fish                                                                    | Water Flea                                                                                                                                              | Freshwater Algae                                               |
|-----------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| o-Xylene  | LC50: 16.1 mg/L/96h (Lepomis macrochirus)<br>LC50: 13 mg/L/24h (Carassius auratus) | EC50: 0.78 - 2.51 mg/L, 48h Static (Daphnia magna)<br>EC50: 2.61 - 5.59 mg/L, 48h Flow through (Daphnia magna)<br>EC50: = 3.2 mg/L, 48h (Daphnia magna) | EC50: = 4.7 mg/L, 72h static (Pseudokirchneriella subcapitata) |

| Component | Microtox                | M-Factor |
|-----------|-------------------------|----------|
| o-Xylene  | EC50 = 0.0084 mg/L 24 h |          |

**12.2. Persistence and degradability** Expected to be biodegradable  
**Persistence** Insoluble in water, Persistence is unlikely, based on information available.  
**Degradation in sewage treatment plant** Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

**12.3. Bioaccumulative potential** May have some potential to bioaccumulate



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| Component | log Pow | Bioconcentration factor (BCF) |
|-----------|---------|-------------------------------|
| o-Xylene  | 3.12    | 21.4 dimensionless            |

## 12.4. Mobility in soil

The product is insoluble and floats on water. The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. Spillage unlikely to penetrate soil. Will likely be mobile in the environment due to its volatility.

## 12.5. Results of PBT and vPvB assessment

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB).

## 12.6. Endocrine disrupting properties

### Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

## 12.7. Other adverse effects Persistent Organic Pollutant Ozone Depletion Potential

This product does not contain any known or suspected substance

This product does not contain any known or suspected substance

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

#### Waste from Residues/Unused Products

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

#### Contaminated Packaging

Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

#### European Waste Catalogue (EWC)

According to the European Waste Catalog, Waste Codes are not product specific, but application specific.

#### Other Information

Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Can be landfilled or incinerated, when in compliance with local regulations. Do not let this chemical enter the environment. Do not empty into drains.

## SECTION 14: TRANSPORT INFORMATION

### IMDG/IMO

|                                         |         |
|-----------------------------------------|---------|
| <u>14.1. UN number</u>                  | UN1307  |
| <u>14.2. UN proper shipping name</u>    | Xylenes |
| <u>14.3. Transport hazard class(es)</u> | 3       |
| <u>14.4. Packing group</u>              | III     |

### ADR

|                                         |         |
|-----------------------------------------|---------|
| <u>14.1. UN number</u>                  | UN1307  |
| <u>14.2. UN proper shipping name</u>    | Xylenes |
| <u>14.3. Transport hazard class(es)</u> | 3       |
| <u>14.4. Packing group</u>              | III     |

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## IATA

**14.1. UN number** UN1307  
**14.2. UN proper shipping name** Xylenes  
**14.3. Transport hazard class(es)** 3  
**14.4. Packing group** III

**14.5. Environmental hazards** No hazards identified

**14.6. Special precautions for user** No special precautions required.

**14.7. Maritime transport in bulk according to IMO instruments** Not applicable, packaged goods

## SECTION 15: REGULATORY INFORMATION

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

#### International Inventories

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

| Component | CAS No  | EINECS    | ELINCS | NLP | IECSC | TCSI | KECL     | ENCS | ISHL |
|-----------|---------|-----------|--------|-----|-------|------|----------|------|------|
| o-Xylene  | 95-47-6 | 202-422-2 | -      | -   | X     | X    | KE-35429 | X    | X    |

| Component | CAS No  | TSCA | TSCA Inventory notification - Active-Inactive | DSL | NDSL | AICS | NZIoC | PICCS |
|-----------|---------|------|-----------------------------------------------|-----|------|------|-------|-------|
| o-Xylene  | 95-47-6 | X    | ACTIVE                                        | X   | -    | X    | X     | X     |

Legend: X - Listed '-' - Not Listed

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

#### Authorisation/Restrictions according to EU REACH

| Component | CAS No  | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|-----------|---------|---------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| o-Xylene  | 95-47-6 | -                                                                   | Use restricted. See entry 75.<br>(see link for restriction details)           | -                                                                                                     |

#### REACH links

<https://echa.europa.eu/substances-restricted-under-reach>

#### Seveso III Directive (2012/18/EC)

| Component | CAS No  | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements |
|-----------|---------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| o-Xylene  | 95-47-6 | Not applicable                                                                            | Not applicable                                                                           |

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

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Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

## National Regulations

**UK** - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

**WGK Classification** See table for values

| Component | Germany - Water Classification (AwSV) | Germany - TA-Luft Class |
|-----------|---------------------------------------|-------------------------|
| o-Xylene  | WGK2                                  |                         |

| Component | France - INRS (Tables of occupational diseases)               |
|-----------|---------------------------------------------------------------|
| o-Xylene  | Tableaux des maladies professionnelles (TMP) - RG 4bis, RG 84 |

| Component                   | Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81) | Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC) | Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure |
|-----------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| o-Xylene<br>95-47-6 ( >95 ) | Prohibited and Restricted Substances                                                                           | Group I                                                                         |                                                                                             |

## 15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has been conducted by the manufacturer/importer

## SECTION 16: OTHER INFORMATION

### Full text of H-Statements referred to under sections 2 and 3

H304 - May be fatal if swallowed and enters airways  
H312 - Harmful in contact with skin  
H332 - Harmful if inhaled  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H335 - May cause respiratory irritation  
H412 - Harmful to aquatic life with long lasting effects  
H226 - Flammable liquid and vapor

### Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

ALFAA22902

# SAFETY DATA SHEET

o-Xylene

Revision Date 02-May-2025

**DNEL** - Derived No Effect Level

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**NOEC** - No Observed Effect Concentration

**PBT** - Persistent, Bioaccumulative, Toxic

Predicted No Effect Concentration (PNEC)

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

## Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (Volatile Organic Compound)

## Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Chemical incident response training.

Fire prevention and fighting, identifying hazards and risks, static electricity, explosive atmospheres posed by vapours and dusts.

## Prepared By

Health, Safety and Environmental Department

## Creation Date

15-Jun-2010

## Revision Date

02-May-2025

## Revision Summary

Not applicable.

**This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended.**

## Disclaimer

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**End of Safety Data Sheet**