

## University of Oxford COSHH Assessment Form

Read the notes on completion before attempting to fill in this form. If insufficient space is available under any section, use a separate piece of paper and attach it to the form.

File ref: Xylene -  
COSHH  
Date: February 2016

**Department:** NDM,  
NDMRB

**Persons involved:** All NDMRB Laboratory Staff

**Location of work:**  
NDMRB Laboratories

**Description of procedure:** Staining reagent

Substances used	Quantities used	Frequency of use	Hazards identified	Exposure route
Xylene CAS No 1330-20-7	100% solution in 500ml bottle	Weekly	H226 Flammable liquid and vapour. 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. H373 May cause damage to organs through prolonged or repeated exposure.	Inhalation Ingestion; contact with skin and eyes.

**Could a less hazardous substance (or form of the substance) be used instead?** Yes/~~No~~

**Justify not using it:**

Xylene will be replaced by the safer alternative Histoclear. Xylene should not be ordered without approval of relevant lab manager.

**What measures have you taken to control risk?**

**Engineering controls:** Use in fume hood only

**PPE:** Safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). 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.

**Management measures:** 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. 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.

**Most important symptoms and effects, both acute and delayed:** Blurred vision, Incoordination., Headache, Nausea, Vomiting, Dizziness, Weakness, anaemia, Prolonged or repeated exposure to skin causes defatting and dermatitis. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Components with workplace control parameters**

Component	CAS-No.	ValueForm of exposure	Control parameters	Basis
Xylene	1330-20-7	TWA	50 ppm 220 mg/m3	UK. EH40 WEL - Workplace 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.		
		STEL	100 ppm 441 mg/m3	UK. EH40 WEL - Workplace Exposure Limits
		Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.		
		TWA	50 ppm 221 mg/m3	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		
		STEL	100 ppm 442 mg/m3	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		
Ethylbenzene	100-41-4	TWA	100 ppm 442 mg/m3	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		
		STEL	200 ppm 884 mg/m3	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		
		TWA	100 ppm 441 mg/m3	UK. EH40 WEL - Workplace Exposure Limits
		Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.		
		STEL	125 ppm 552 mg/m3	UK. EH40 WEL - Workplace Exposure Limits
		Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.		

**Accidental release measures:** 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.

**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.

**Checks on control measures:**

LeV is visually checked regularly and air flow are inspected once a year as part of a servicing contract.

**Is health surveillance required?** No

**Training requirements:**

[TDI-SOP-004](#) Handling and Use of Chemicals

[TDI-GI-003](#) New hazard symbols vs. old hazard symbols

**Emergency procedures:**

**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.

**Fire fighting measures:** Use water spray, alcohol resistant foam, dry chemical or carbon dioxide.

**Special hazards arising from the substance or mixture:** Carbon oxides

**Advice for Fire fighters:** Wear self-contained breathing apparatus where possible.

**Further information**

Use water spray to cool unopened containers.

Waste disposal:

**Disposal:**

Xylene is to be disposed of via the Safety Office only – contact your lab manager to arrange disposal.

Name and position of assessor: Tiphaine Bouriez-Jones, Lab Manager

Signature:



Name of supervisor (student work only):

Signature:

Name of head of department or nominee:

Signature: