Infosafe No™ 1CH86	Issue Date :November 2021	RE-ISSUED by ABS

Product Name **XYLENE**

Classified as hazardous

1. Identification

GHS Product Identifier	XYLENE
Company Name	AUSTRALIAN BIOSTAIN Pty Ltd
Address	24 - 28 Stratton Drive, Traralgon, Victoria, Australia, 3844 www.australianbiostain.com.au
Telephone/Fax Number	Tel: (03) 5176 2855
Emergency phone number	CHEMCALL (24 hours): 1800 127 406 (Australia) / +64-4-917-9888 (International)
E-mail Address	www.australianbiostain.com.au
Recommended use of the chemical and restrictions on use	Solvent in paint, printing, rubber and leather industries; as a solvent for gums and resins, rubber, castor and linseed oils and dibenzylcellulose; as a constituent of paints, lacquers, varnishes, inks, dyes, adhesives and cleaning fluids; as a carrier in production of epoxy resins; as a degreaser and cleaning agent; as a constituent of motor and aviation fuels; in chemical synthesis; and in the manufacture of quartz crystal oscillators, perfumes and insect repellents.
Other Names	**Name** — **Product Code** Dimethylbenzene, Xylol XYLENE (Low Sulfur) — AX
Additional Information	Commercial xylene is produced from petroleum and coal tar. The mixture of xylene isomers also occurs naturally in small quantities in petroleum stocks, coal tar and natural gas, and is formed during forest fires.
Other Information	Australian Biostain Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Australian Biostain Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Australian Biostain Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

GHS classification of the substance/mixture	Flammable Liquids: Category 3 Aspiration Hazard: Category 1 Acute Toxicity - Dermal: Category 4 Skin Corrosion/Irritation: Category 2 Acute Toxicity - Inhalation: Category 4 Specific Target Organ Toxicity - Single Exposure: Category 3 (respiratory tract irritation)
Signal Word (s)	DANGER
Hazard Statement (s)	H226 Flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H312 Harmful in contact with skin. H315 Causes skin irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation.
Pictogram (s)	Flame, Health hazard, Exclamation mark

Classified as hazardous

Precautionary statement – Prevention	P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking. P233 Keep container tightly closed. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ventilating/lighting/.../equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statement – Response	P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P331 Do NOT induce vomiting. P302+P352 IF ON SKIN: Wash with plenty of soap and water. P332+P313 If skin irritation occurs: Get medical advice/attention. P363 Wash contaminated clothing before reuse. P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P370+P378 In case of fire: Use foam, dry chemical, CO2 or water spray for extinction. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P312 Call a POISON CENTER or doctor/physician if you feel unwell.
Precautionary statement – Storage	P403+P235 Store in a well-ventilated place. Keep cool. P405 Store locked up.
Precautionary statement – Disposal	P501 Dispose of contents/container to an approved waste disposal plant.

3. Composition/information on ingredients

Ingredients	**Name**	**CAS**	**Proportion**
	Xylene	1330-20-7	100 %
Other Information	This is a mixture of the three isomers, o-, m- and p-xylene.		

4. First-aid measures

Inhalation	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Immediately obtain medical aid if cough or other symptoms appear.
Ingestion	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.
Skin	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. In severe cases or if irritation persists, seek medical attention.
Eye contact	If in eyes wash out immediately with water. If rapid recovery does not occur, obtain medical attention
First Aid Facilities	Maintain eyewash fountain and drench facilities in work area.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of the patient.
Other Information	For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

5. Fire-fighting measures

Hazards from Combustion Products	Carbon monoxide, carbon dioxide, reactive hydrocarbons, aldehydes.

Specific Methods	Caution: Use of water spray when fighting fire may be inefficient. Small fire: Use foam, dry chemical, CO2 or water spray. Large fire: Use foam, fog or water spray - Do not use water jets. If safe to do so, move undamaged containers from fire area. Cool containers with flooding quantities of water until well after fire is out. Avoid getting water inside containers.
Specific hazards arising from the chemical	FLAMMABLE: Liquids has a low flashpoint - Will be easily ignited by heat, sparks or flame. Vapour will form explosive mixtures with air. Vapour may travel to source of ignition and flash back. Vapour is heavier than air and will collect in low or confined areas (drains, basements, tanks). Liquids is lighter than water. Containers may explode when heated. Fire will produce irritating, poisonous and/or corrosive gases. Vapours from runoff may create explosion hazard.
Hazchem Code	3[Y]
Precautions in connection with Fire	Wear SCBA and fully-encapsulating, gas-tight suit when handling these substances. Structural firefighter's uniform is NOT effective for these materials.

6. Accidental release measures

Spills & Disposal	ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 50m - All equipment used when handling the product must be earthed. Do not touch or walk through spilled material. Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas. Vapour-suppressing foam may be used to control vapours - Water spray may be used to knock down or divert vapour clouds. Absorb with earth, sand or other non-combustible material. Use clean, non-sparking tools to collect absorbed material and place it into loosely-covered metal or plastic containers for later disposal. SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.
Personal Precautions	Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Clean-up Methods - Small Spillages	Absorb or contain liquid with sand, earth or spill control material. Shovel up using non sparking tools and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or overdrum.

7. Handling and storage

Precautions for Safe Handling	Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation of gas/fumes/vapour/spray mists. Avoid prolonged or repeated exposure. Keep container closed. Use only with adequate ventilation. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Keep away from incompatibles such as oxidizing agents, acids. Protect against physical damage. Keep away from heat and all sources of ignition (sparks and flame). Use areas should be No Smoking areas. Ground all equipment containing material. Take precautions against static discharge. All electrical equipment must be flameproofed. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapours, liquid); observe all warnings and precautions listed for the product. Do not attempt to clean empty containers since residue is difficult to remove. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, sparks, flame, static electricity or other sources of ignition: they may explode and cause injury or death. Empty containers retain product residue, (liquid and/or vapour), and can be dangerous.
Conditions for safe storage, including any incompatibilities	Store in tightly closed containers, in a cool, dry, well-ventilated area, away from any area where the fire hazard may be acute. Store in a segregated and approved area. Outside or detached storage is preferred. Separate from incompatibles. Keep away from heat and all sources of ignition (spark or flame). Keep from contact with oxidizing materials. Protect against physical damage. Keep well closed and protected from direct sunlight and moisture. Keep

containers closed when not in use - check regularly for leaks. All containers should be clearly labelled. Containers should be bonded and grounded for transfers to avoid static sparks. Storage areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapours, liquid); observe all warnings and precautions listed for the product. Do Not attempt to clean empty containers since residue is difficult to remove. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, sparks, flame, static electricity or other sources of ignition: they may explode and cause injury or death.

Corrosiveness Not corrosive to metals.

Storage Temperatures Store at room temperature (15 to 25 °C recommended).

Unsuitable Materials Light metals, some forms of plastics, rubber and coatings.

8. Exposure controls/personal protection

Occupational exposure limit values

Name	STEL		TWA		
	mg/m3	ppm	mg/m3	ppm	Footnote
Xylene	655	150	350	80	Xylene (o-, m-, p- isomers)

Other Exposure Information These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.
A time weighted average (TWA) has been established for Xylene (o-, m-, p- isomers) (Safe Work Australia) of 350 mg/m³, (80 ppm). The corresponding STEL level is 655 mg/m³, (150 ppm). The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.

Appropriate engineering controls Maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.

Respiratory Protection Where ventilation is not adequate, respiratory protection may be required. Avoid breathing vapours or mists. Select and use respirators in accordance with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. When mists or vapours exceed the exposure standards then the use of the following is recommended: Approved respirator with organic vapour and dust/mist filters. Filter capacity and respirator type depends on exposure levels.

Eye Protection The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Hand Protection Wear gloves of impervious material conforming to AS/NZS 2161: Occupational protective gloves - Selection, use and maintenance. Final choice of appropriate glove type will vary according to individual circumstances. This can include methods of handling, and engineering controls as determined by appropriate risk assessments. Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste.

Personal Protective Equipment Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand

	or other approved standards.
Footwear	Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.
Body Protection	Wear anti-static protective clothing if there is a risk of ignition from static electricity. Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.
Hygiene Measures	Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

9. Physical and chemical properties

Form	Liquid
Appearance	Colourless liquid.
Odour	Characteristic odour.
Melting Point	Variable depending on isomer composition. May start to solidify at 13.35 °C based on data for: p-Xylene. Weighted average: -42.39 °C.
Boiling Point	Variable boiling ranges depending on isomer composition; 137-140 °C; 129-150 °C.
Solubility in Water	Practically insoluble (130 mg/L at 25 °C).
Solubility in Organic Solvents	Soluble in all proportions in absolute alcohol, diethyl ether and other organic compounds; very soluble in ethanol.
Specific Gravity	0.86 at 20 °C (water = 1)
Vapour Pressure	Approximately 0.8-0.867 kPa (6-6.5 mm Hg) at 20 °C.
Vapour Density (Air=1)	3.7
Evaporation Rate	Approximately 0.7 (n-butyl acetate = 1)
Odour Threshold	1 ppm (detection); 20 ppm (detection); 40 ppm (recognition).
Volatile Component	100 %vol @ 21 °C
Partition Coefficient: n-octanol/water	Log P(oct) = 3.12-3.20.
Surface Tension	No information available for xylene (mixed isomers). Individual isomers fall in range 28.3-29.76 mN/m (28.3-29.76 dynes/cm) at 20 °C.
Flash Point	17-25 °C (closed cup).
Flammability	FLAMMABLE. This product should be stored and used in a well ventilated area away from naked flames, heat, sparks and other sources of ignition. Electrically link and ground metal containers for transfers of the product to prevent accumulation of static electricity. Keep the container tightly closed.
Auto-Ignition Temperature	464 °C
Flammable Limits - Lower	1.7% by volume
Flammable Limits - Upper	7.5% by volume
Explosion Properties	Above flash point, vapour-air mixtures are explosive within flammable limits noted above. Contact with strong oxidizers may cause fire. Sealed containers may rupture when heated.
Molecular Weight	106.16
Kinematic Viscosity	Specific information is not available for xylene (mixed isomers). Individual isomers fall in the range 0.717-0.864 m^2/s (0.717-0.864 centistokes) at 20 °C (calculated).
Dynamic Viscosity	Specific information is not available for xylene (mixed isomers). Individual isomers fall in range 0.620-0.076 centipoises (0.620-0.076 mPa.s) at 20 °C.

Saturated Vapour Concentration	Variable - approximately 7900-8550 ppm (0.79-0.86%) at 20 °C (calculated).
Other Information	Conversion Factor: 1 ppm = 4.33 mg/m³; 1 mg/m³ = 0.23 ppm at 25 °C (calculated).

10. Stability and reactivity

Chemical Stability	Stable under ordinary conditions of use and storage.
Conditions to Avoid	Heat, high temperatures, flames, sparks, static discharge, ignition sources and incompatibles.
Incompatible Materials	Some strong acids, acetic acid, nitric acid, conc. sulfuric acid, oxidizing agents, chlorine, bromine, fluorine, alkalis, UF6, sulfur, 1,3-dichloro-5,5-dimethyl-2,4-imidazolidindione (dichlorohydrantoin).
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, reactive hydrocarbons, aldehydes.
Possibility of hazardous reactions	Reaction with strong oxidizing agents increases risk of fire and explosion. Reaction with nitric acid can be explosive. Reacton with 1,3-dichloro-5,5-dimethyl-2,4-imidazolidindione (dichlorohydrantoin) caused a violent explosion. The haloimide undergoes immediate self accelerating decomposition in the presence of solvents.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Acute Toxicity - Oral	LD50 (rat): 3523 mg/kg.
Ingestion	Ingestion causes burning sensation in mouth and stomach, nausea, vomiting and salivation. May cause irritation of the digestive tract. Ingestion of large amounts is likely to cause CNS effects such as dizziness, nausea and vomiting. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure. In one case, ingestion of food probably contaminated with xylene caused pulmonary oedema, liver impairment and coma. The man recovered within 2 hours after treatment. Although there are no case reports, xylene may be aspirated, based on its physical properties (viscosity and surface tension), possibly resulting in severe haemorrhagic pneumonitis with severe pulmonary injury or death.
Inhalation	Harmful if inhaled. Inhalation of vapours causes irritation to the nose, throat and respiratory tract. Irritation may lead to chemical pneumonitis and pulmonary oedema. Symptoms of pulmonary oedema, such as shortness of breath and difficulty breathing, may be delayed several hours after exposure. Substernal pain, cough, and hoarseness are also reported. Inhalation of high concentrations may result in nausea, vomiting, headache and ringing in the ears. High vapour concentrations are anesthetic and central nervous system depressants, producing effects such as dizziness, headache, confusion, incoordination, nausea, vomiting, weakness, loss of consciousness and respiratory failure. Extreme exposures may cause other CNS effects including death. Reversible liver and kidney damage has been reported in cases of severe xylene exposure. Can cause neurobehavioural effects such as impaired short-term memory and reaction time (300 ppm mixed xylenes, with exercise) and alterations in body balance (65 to 400 ppm m-xylene). Exposure to 300 or 400 ppm mixed xylenes or 65 to 150 ppm p-xylene have not had similar effects. This variation in results is probably due to differences in the effects being studied, exposure conditions, development of tolerance and total xylene uptake (which increases during exercise).
Skin	Harmful in contact with skin. Xylene (mixed isomers) liquid is a moderate skin irritant based on animal information. Studies with xylene isomers have shown irritation, redness and a burning sensation can result from contact. These effects are reversible shortly (usually within 1 hour) after the contact stops. Repeated or prolonged exposure to xylene can defat the skin resulting in dermatitis (red, dry, itchy skin). Blistering may occur, particularly if

	exposure to concentrated xylene is prolonged and the exposed area of skin is occluded. Xylene liquid or vapour can be absorbed through the skin, but not as readily as when inhaled or ingested. Skin absorption has been reported to be slow and significant harmful effects are not expected by this route.
Eye	Xylene (mixed isomers) liquid is a very mild irritant, based on animal information. Splashes cause severe irritation, possible corneal burns and eye damage. Eye irritation has been reported at vapour levels as low as 200 ppm. Corneal vacuoles (pockets of fluid or air in the cornea) have also been reported following exposure to undefined vapour concentrations. This effect was reversible within 8 to 11 days for 7 of 8 workers.
Respiratory sensitisation	Not classified based on available information.
Skin Sensitisation	Not classified based on available information.
Germ cell mutagenicity	Not classified based on available information.
Carcinogenicity	Xylenes [1330-20-7] are evaluated in the IARC Monographs (Vol. 47, Vol. 71; 1999) as Group 3: Not classifiable as to carcinogenicity to humans. Not classified based on available information.
Reproductive Toxicity	Not classified based on available information.
STOT-single exposure	Specific Target Organ Toxicity - Single Exposure: Category 3 (respiratory tract irritation) H335 May cause respiratory irritation.
STOT-repeated exposure	Not classified based on available information.
Aspiration Hazard	Aspiration Hazard: Category 1 H304 May be fatal if swallowed and enters airways.
Chronic Effects	Chronic exposure to xylene may cause defatting dermatitis, skin rash, reversible eye damage, dyspnoea (labored breathing), confusion, dizziness, apprehension, loss of appetite, pale skin, memory loss, headache, tremors, weakness, anorexia, nausea, ringing in the ears, irritability, thirst, mild changes in liver function, kidney impairment, anaemia, and hyperplasia, but not destruction, of the bone marrow, causing low blood cell count.
Skin corrosion/irritation	Skin Corrosion/Irritation: Category 2 H315 Causes skin irritation.

12. Ecological information

Ecotoxicity	Harmful effect on aquatic organisms. Hazard for drinking water supplies.
Persistence and degradability	Biologic degradation: Biodegradable. ThOD: 3.125 g/g.
Mobility	Likely to be mobile in the environment due to its volatilty.
Bioaccumulative Potential	Bioconcentration factor: 0.6 - 15 (experimental). Slightly bioaccumulative (BCF <30).
Environmental Protection	Do not allow to enter waters, waste water, or soil!
Acute Toxicity - Fish	LC50 (Onchorhynchus mykiss): 2.60 mg/l /96 h.

13. Disposal considerations

Disposal Considerations	Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.

14. Transport information

Transport Information	Dangerous Goods of Class 3 Flammable Liquids, are incompatible in a placard load with any of the following: - Class 1, Class 2.1, if both the Class 3 and Class 2.1, dangerous goods are in bulk, Class 2.3, Class 4.2, Class 5, Class 6, if the Class 3 dangerous goods are nitromethane and Class 7.

Classified as hazardous

U.N. Number	1307
UN proper shipping name	XYLENES
Transport hazard class(es)	3
Hazchem Code	3[Y]
Packing Group	III
EPG Number	3A1
IERG Number	16
UN Number (Air Transport, ICAO)	1307
IATA/ICAO Packing Group	III
IATA/ICAO Hazard Class	3
IATA/ICAO Proper Shipping Name	ZYLENES
IMDG UN No	1307
IMDG Description	XYLENES
IMDG Hazard Class	3
IMDG Pack. Group	III
IMDG Marine pollutant	No
Environmental Hazards	Harmful to aquatic organisms. Has the potential to bioaccumulate.

15. Regulatory information

Regulatory Information	All the constituents of this product are listed on the Australian Inventory of Chemical Substances (AICS), or exempted. Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
Poisons Schedule	S6

16. Other Information

Literature References	'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia. National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'. Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals'. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand. Safe Work Australia, 'Hazardous Chemical Information System'. Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances'. Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment'.
Empirical Formula & Structural Formula	Empirical Formula: C8H10. Structural Formula: C6H4(CH3)2.

...End Of MSDS...

Infosafe No™ 1CH86	Issue Date :November 2021	RE-ISSUED by ABS

Product Name **XYLENE**

Classified as hazardous