







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

Material Name: Omega Concrete Sealer Thinners / Xylene

Recommended Uses: Solvent. Raw material for use in the chemical industry.

Other names: Dimethyl benzenes XYLENES

Product Code: Q9151

Supplier: Auschem (NSW) Pty. Ltd. ABN: 32 084 260 159

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**Local Contact** 

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### 2. HAZARDS IDENTIFICATION

HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

Classified as hazardous according to the criteria of NOHSC, and as Dangerous Goods according to the Australian Dangerous Goods Code.

Symbol(s): Xn Harmful. 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. S 2 Keep out of the reach of children. Health Hazards: Vapours may cause drowsiness and dizziness. Harmful: may cause lung damage if swallowed. Possibility of organ or organ system damage from prolonged exposure; see Chapter 11 for details. Target organ(s): Central nervous system (CNS). Auditory system. Signs and Symptoms: Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision. Skin irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blisters. If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. The onset of respiratory symptoms may be delayed for several hours after exposure. Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death. Auditory system effects may include temporary hearing loss and/or ringing in the ears.









Aggravated Medical Condition: Pre-existing medical conditions of the following organ(s) or organ system(s) may be aggravated by exposure to this material: Central nervous system (CNS). Skin. Auditory system. Eyes. Respiratory system. Safety Hazards: In use, may form flammable/explosive vapour-air mixture. This material is a static accumulator. Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur. Environmental Hazards: Toxic to aquatic organisms. SUSMP Schedule: 6

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Material Formal Name: Benzene, dimethyl CAS No.: 1330-20-7 INDEX No.: 601-022-00-9

**Hazardous Components** 

Chemical Name CAS EINECS Symbol(s) R-phrase(s) Conc. Ethylbenzene 100-41-4 202-849-4 <20.00 %W Xylene, Mixed Isomers 1330-20-7 215-535-7 Xn R10; R20/21; R38 >=80.00 %W

Additional Information: Refer to chapter 16 for full text of EC R-phrases. The substance does not fulfill all screening criteria for persistence, bioaccumulation and toxicity and hence is not considered to be PBT or vPvB. Stadis 450, an antistatic agent, has been added to this product to improve conductivity.

### 4. FIRST AID MEASURES

General Information: Keep victim calm. Obtain medical treatment immediately. Inhalation: DO NOT DELAY. Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment. Skin Contact: Remove contaminated clothing. Immediately flush skin with large amounts of water for at least 15 minutes, and follow by washing with soap and water if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment. Eye Contact: Immediately flush eyes with large amounts of water for at least 15 minutes while holding eyelids open. Transport to the nearest medical facility for additional treatment. Ingestion: If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3° C), shortness of breath, chest congestion or continued coughing or wheezing. Give nothing by mouth.

Advice to Physician: Potential for chemical pneumonitis. Potential for cardiac sensitisation, particularly in abuse situations. Hypoxia or negative inotropes may enhance these effects. Consider: oxygen therapy. Call a doctor or poison control center for guidance.









#### 5. FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

Specific Hazards: The vapour is heavier than air, spreads along the ground and distant ignition is possible. Will float and can be reignited on surface water. Carbon monoxide may be evolved if incomplete combustion occurs. Extinguishing Media: Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only. Unsuitable Extinguishing Media: Do not use water in a jet. Protective Equipment for Firefighters: Wear full protective clothing and self-contained breathing apparatus. Additional Advice: Keep adjacent containers cool by spraying with water. Hazchem Code: •3Y For fire fighting, use foam (alcohol resistant foam may be required). Risk of explosion. Breathing apparatus, firefighting gear and chemically impervious protective gloves should be worn. Prevent spillage from entering drains or watercourses.

### 6. ACCIDENTAL RELEASE MEASURES

Observe all relevant local and international regulations. Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. See Chapter 13 for information on disposal.

Protective Measures: Isolate hazard area and deny entry to unnecessary or unprotected personnel. Stay upwind and keep out of low areas. Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment (of product and firefighting water) to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Ventilate contaminated area thoroughly. Clean Up Methods: For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. For small liquid spills (< 1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. Additional Advice: Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. Local authorities should be advised if significant spillages cannot be contained. The vapour is heavier than air, spreads along the ground and distant ignition is possible. Vapour may form an explosive mixture with air. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Material Safety Data Sheet.









### 7. HANDLING AND STORAGE

General Precautions: Avoid breathing vapours or contact with material. Only use in well ventilated areas. Wash thoroughly after handling. On guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material. Handling: Avoid inhaling vapour and/or mists. Avoid contact with skin, eyes, and clothing. Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur. Be aware of handling operations that may give rise to additional hazards that result from the accumulation of static charges. These include but are not limited to pumping (especially turbulent flow), mixing, filtering, splash filling, cleaning and filling of tanks and containers, sampling, switch loading, gauging, vacuum truck operations, and mechanical movements. These activities may lead to static discharge e.g. spark formation. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<= 1 m/s until fill pipe submerged to twice its diameter, then <= 7 m/s). Avoid splash filling. Do NOT use compressed air for filling, discharging, or handling operations. Handling Temperature: Ambient. Storage: Bulk storage tanks should be diked (bunded). Vapours from tanks should not be released to atmosphere. Breathing losses during storage should be controlled by a suitable vapour treatment system. Must be stored in a diked (bunded) well-ventilated area, away from sunlight, ignition sources and other sources of heat. Keep away from aerosols, flammables, oxidizing agents, corrosives and from other flammable products which are not harmful or toxic to man or to the environment. The vapour is heavier than air. Beware of accumulation in pits and confined spaces. Storage Temperature: Ambient. Electrostatic charges will be generated during pumping. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment to reduce the risk. The vapours in the head space of the storage vessel may lie in the flammable/explosive range and hence may be flammable.

Product Transfer: Keep containers closed when not in use. Refer to guidance under Handling section. Recommended Materials: For containers, or container linings use mild steel, stainless steel. Unsuitable Materials: Natural, butyl, neoprene or nitrile rubbers. Container Advice: Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near containers. Additional Information: Ensure that all local regulations regarding handling and storage facilities are followed. See additional references that provide safe handling practices for liquids that are determined to be static accumulators: American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practices on Static Electricity). CENELEC CLC/TR 50404 (Electrostatics – Code of practice for the avoidance of hazards due to static electricity).









### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

Material Source Type ppm Mg/m³ Notation Ethylbenzene ACGIH TWA 20 ppm AU OEL TWA 100 ppm 434 mg/m³ AU OEL STEL 125 ppm 543 mg/m³ Xylene, Mixed Isomers ACGIH TWA 100 ppm ACGIH STEL 150 ppm AU OEL TWA 80 ppm 350 mg/m³ AU OEL STEL 150 ppm 655 mg/m³

Biological Exposure Index (BEI)

Material Determinant Sampling Time BEI Reference

Ethylbenzene Mandelic acid in urine

End of shift at end of work week

1.5 g/g creatinine

ACGIH (2003)

Ethyl benzene in End exhaled air

Sampling time: Not critical.

ACGIH BEL (2008)

Sum of mandelic acid and phenylglyoxylic acid in Creantinine in urine

Sampling time: End of shift at end of work week.

0.7 g/g ACGIH BEL (2009)

Sum of mandelic acid and phenylglyoxylic acid in Creatinine in urine

Sampling time: End of shift at end of work week.

1.5 g/g KW BEL (2001)

Ethyl benzene in Endexhaled air

Sampling time: Not critical









KW BEL (2001)

Xylene, Mixed Isomers

Methylhippuric acids in Creatinine in urine

End of shift

1.5 g/g creatinine

ACGIH (2003)

Methylhippuric acids in Creatinine in urine

Sampling time: End of shift

1.5 g/g ACGIH BEL (2009)

Exposure Controls: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Use sealed systems as far as possible. Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits. Local exhaust ventilation is recommended. Firewater monitors and deluge systems are recommended. Eye washes and showers for emergency use. Personal Protective Equipment: Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers. Respiratory Protection: If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for organic gases and vapours [boiling point >65 °C (149 °F)] meeting EN14387. Where air-filtering respirators are unsuitable (e.g., airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus. Hand Protection: Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739, AS/NZS:2161) made from the following materials may provide suitable chemical protection: Longer term protection: Viton. Incidental contact/Splash protection: Nitrile rubber. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a nonperfumed moisturizer is recommended. Eye Protection: Chemical splash goggles (chemical monogoggles). Protective Clothing: Wear antistatic and flame retardant clothing. Chemical resistant gloves/gauntlets, boots, and apron. Where risk of splashing or in spillage clean up, use chemical resistant one-piece overall with integral hood.









Monitoring Methods: Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available. National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods, http://www.cdc.gov/niosh/nmam/nmammenu.html. Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods http://www.osha.gov/dts/sltc/methods/index.html Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances, http://www.hse.gov.uk/pubns/mdhs/index.htm Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany. http://www.dguv.de/ifa/en/gestis/analytical\_methods/index.jsp L'Institut National de Recherche et de Securité, (INRS), France http://www.inrs.fr/accueil/risques/chimiques/controle-exposition.html

Environmental Exposure Controls: Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colourless Liquid. Odour: Aromatic Odour threshold: 0.27 ppm pH: Not applicable Boiling point: Typical 136 - 145 °C / 277 - 293 °F Melting / freezing point: > -48 °C / -54 °F Flash point: Typical 23 -27 °C / 73 - 81 °F(Abel) Explosion / Flammability limits in air: 1 - 7.1 %(V) Auto-ignition temperature: 432 -530 °C / 810 - 986 °F (ASTM E-659) Vapour pressure: Typical 4.5 kPa at 50°C / 122°F Typical 0.8 - 1.2 kPa at 20 °C / 68 °F Typical 0.2 kPa at 0 °C / 32 °F Specific gravity: Data not available. Density: Typical 870 kg/m3 at 15 °C / 59 °F (ASTM D-1298) Bulk density: Data not available. Water solubility: 0.175 kg/m3 Solubility in other solvents: Data not available. n-octanol/water partition coefficient (log Pow): 3.12 - 3.2 Kinematic viscosity: < 0.9 mm2/s at 20 °C / 68 °F Vapour density (air=1): 3.7 Electrical conductivity: Medium conductivity: 200 - 3000 pS/m, The conductivity of this material makes it a static accumulator., A liquid is typically considered nonconductive if its conductivity is below 100 pS/m and is considered semiconductive if its conductivity is below 10 000 pS/m., Whether a liquid is nonconductive or semi-conductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid. Dielectric constant: Typical 2.6 Evaporation rate (nBuAc=1): 13.5 (DIN 53170, di-ethyl ether=1) 0.76 (ASTM D 3539, nBuAc=1) Surface tension: Typical 28.7 mN/m at 20 °C / 68 °F(ASTM D-971) Molecular weight: 106 g/mol Decomposition temperature: Data not available.









#### 10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of use. Reacts violently with strong oxidising agents. Conditions to Avoid: Avoid heat, sparks, open flames and other ignition sources. Prevent vapour accumulation. Materials to Avoid: Strong oxidising agents.

Hazardous Decomposition Products: Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation. Hazardous Polymerisation: No, hazardous, exothermical polymerization cannot occur. Sensitivity to Mechanical Impact: No, product will not become self-reactive. Sensitivity to Static Discharge: Yes, in certain circumstances product can ignite due to static electricity.

### 11. TOXICOLOGICAL INFORMATION

Basis for Assessment: Information given is based on product testing. Acute Oral Toxicity: Low toxicity: LD50 >2000 mg/kg, Rat Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal. Acute Dermal Toxicity: Low toxicity: LD50 >2000 mg/kg Classified as harmful under EC criteria., Rabbit Acute Inhalation Toxicity: Low toxicity: LC50 >20 mg/l / 4 hours, Rat Classified as harmful under EC criteria. Skin corrosion/irritation: Causes skin irritation. Serious eye damage/irritation: Moderately irritating to eyes (but insufficient to classify). Sensitisation: Not expected to be a skin sensitiser. Repeated Dose Toxicity: Harmful: danger of serious damage to health by prolonged exposure through inhalation. Auditory system: prolonged and repeated exposures to high concentrations have resulted in hearing loss in rats. Solvent abuse and noise interaction in the work environment may cause hearing loss. Germ cell mutagenicity: Not mutagenic. Carcinogenicity: An increased tumour incidence has been observed in experimental animals; the significance of this finding to man is unknown. (Ethylbenzene)

Material Carcinogencity Classification Ethylbenzene ACGIH: Confirmed animal carcinogen with unknown relevance to humans. Ethylbenzene IARC: Possibly carcinogenic to humans. Ethylbenzene GHS / CLP: No carcinogenicity classification Xylene, Mixed Isomers ACGIH: Not classifiable as a human carcinogen. Xylene, Mixed Isomers IARC: Not classifiable as to carcinogenicity to humans. Xylene, Mixed Isomers GHS / CLP: No carcinogenicity classification C-8 Aromatics GHS / CLP: No carcinogenicity classification

Reproductive and Developmental Toxicity: Does not impair fertility. Not expected to be a developmental toxicant. Additional Information: Exposure to very high concentrations of similar materials has been associated with irregular heart rhythms and cardiac arrest.









#### 12. ECOLOGICAL INFORMATION

Acute Toxicity Fish: Toxic: LL/EL/IL50 >1 - <=10 mg/l Aquatic crustacea: Toxic: LL/EL/IL50 >1 - <=10 mg/l Algae/aquatic plants: Toxic: LL/EL/IL50 >1 - <=10 mg/l Microorganisms: Practically non toxic: LL/EL/IL50 > 100 mg/l Chronic Toxicity Fish: NOEC/NOEL > 1.0 - <=10 mg/l (based on test data) Aquatic crustacea: NOEC/NOEL expected to be > 0.1 - <= 1.0 mg/l Mobility: Floats on water. Adsorbs to soil and has low mobility. Persistence/degradability: Readily biodegradable. Oxidises rapidly by photo-chemical reactions in air. Bioaccumulation: Does not bioaccumulate significantly. Other Adverse Effects: In view of the high rate of loss from solution, the product is unlikely to pose a significant hazard to aquatic life.

#### 13. DISPOSAL CONSIDERATIONS

Material Disposal: Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses. Waste product should not be allowed to contaminate soil or water. Container Disposal: Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard. Do not, puncture, cut, or weld uncleaned drums. Send to drum recoverer or metal reclaimer. Local Legislation: Disposal should be in accordance with applicable regional, national, and local laws and regulations.

### 14. TRANSPORT INFORMATION

**ADG** 

UN number: 1307 UN proper shipping name: XYLENES Class: 3 Packing group: III Hazchem Code: 3Y

**IMDG** 

Identification number: UN 1307 UN proper shipping name: XYLENES Class / Division: 3 Packing group: III

Marine pollutant: No

IATA (Country variations may apply)

UN number: 1307 UN proper shipping name: Xylenes Class / Division: 3 Packing group: III

### 15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.









SUSMP Schedule: 6

**Chemical Inventory Status** 

AICS: Listed. DSL: Listed. INV (CN): Listed. ENCS (JP): Listed. (3)-3 TSCA: Listed. EINECS: Listed.

215-535-7 KECI (KR): Listed. 97-1-275 KECI (KR): Listed. KE-35427 PICCS (PH): Listed.

16. OTHER INFORMATION

R-phrase(s):

R10: Flammable. R20/21: Harmful by inhalation and in contact with skin. R38: Irritating to skin.

MSDS Version Number: 5.2 MSDS Effective Date: 23.08.2012 MSDS Revisions: A vertical bar (|) in the left margin indicates an amendment from the previous version. Uses and Restrictions: This product must not be used in applications other than those listed in Section 1 without first seeking the advice of the supplier. MSDS Distribution: The information in this document should be made available to all who may handle the product Disclaimer: This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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