

SAFETY DATA SHEET

Revision Date 19th November 2016

Version 1

Section 1: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Identifier

Product Name **324S Vinyl Ester Laminating Resin**

Other means of identification

UN Number UN1866

Recommended use of the chemical and restrictions on use.

Recommended Use Recommended for Industrial and/or Professional use only

Details of Distributor

Fiberglass (A/Asia) Sales Pty. Ltd.
2 Lincoln Street,
Minto NSW 2566

For further information, please contact

Contact Point Phone: (02) 9820 1144

Email: info@fiberglass-sales.com.au

Emergency Phone: (02) 9820 1144 (Business Hours)

Section 2: HAZARD(S) IDENTIFICATION

Classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG)

Classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonised System (GHS)

GHS Classification

Flammable liquids	Category 3 - (H226)
Aspiration toxicity - Oral	Category 4 - (H302)
Acute toxicity -Inhalation (Dusts/Mists) (Vapours)	Category 4 - (H332)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Skin sensitization	Category 1 - (H317)
Carcinogenicity	Category 1A - (H350)
Reproductive toxicity	Category 2 - (H361)
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Specific target organ toxicity (repeated exposure)	Category 1 - (H372)

Label elements



Signal word

Danger

Hazard statements

H226 - Flammable liquid and vapour

H302 - Harmful if swallowed

H332 - Harmful if inhaled

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H350 - Suspected causing cancer

H361 - Suspected of damaging fertility or the unborn child

H335 - May cause respiratory irritation

H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Use only outdoors or in a well-ventilated area
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves
 Do not breathe dust/fume/gas/mist/vapours/spray
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use explosion-proof electrical/ ventilating/ lighting/ equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge
 Keep cool

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 Specific treatment (see supplemental first aid instructions on this label)
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention
 If skin irritation or rash occurs: Get medical advice/attention
 IF ON SKIN (or hair): Remove Take off immediately all contaminated clothing. Rinse skin with water/shower
 Wash contaminated clothing before re-use
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Rinse mouth
 IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician
 Do NOT induce vomiting
 In case of fire: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other hazards

Maybe harmful if swallowed
 Harmful to aquatic life with long lasting effects
 Toxic to aquatic life
 This product contains crystalline silica (quartz) in a non-repairable form. Inhalation of crystalline silica is unlikely to occur from exposure to this product
 Avoid dust formation
 Sanding and grinding dust may be harmful if inhaled

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance	Not applicable	
Chemical Name	CAS No	Weight-%
Vinyl Ester Resin	036425-16-8	60-66%
Styrene	100-42-5	30-<60
N,N-Diethylaniline	91-66-7	<0.03
Non-hazardous ingredients	Balance	

Section 4: FIRST AID MEASURES**Description of first aid Measures**

General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. IF exposed or concerned: Get medical advice/attention.
Emergency telephone number	Poisons Information Centre, Australia: 13 11 26
Inhalation	Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a doctor. Immediate medical attention is required. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Self-protection of the first aider Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Burning sensation.

Indication of any immediate medical attention and special treatment needed

Note to doctors Because of the danger of aspiration, emesis or gastric lavage should not be used unless the risk is justified by the presence of additional toxic substances.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media Carbon dioxide (CO₂). Dry chemical. Alcohol resistant foam. Water spray.

Unsuitable extinguishing media Do not use water jet stream.

Specific hazards arising from the chemical

Flammable. Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective actions for fire-fighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

Hazchem code •3Y.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for containment

Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up.

Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.

Precautions to prevent secondary hazards

Prevention of secondary hazards

Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections

See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Use personal protection equipment. Avoid contact with skin and eyes. Avoid breathing vapours or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of

insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before re-use.

General Hygiene Considerations

When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before re-use.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e. pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Keep out of the reach of children. Store locked up. Store away from other materials. Hazardous polymerisation may take place during a fire due to heat. Closed containers could violently rupture. Do not store at temperatures above 27C.

Incompatible materials

Strong acids. Strong bases. Strong oxidising agents.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits This product, as supplied, contains hazardous materials with occupational exposure limits.

Chemical Name	Australia
Styrene 100-42-5	50 ppmTWA 213 mg/m ³ TWA 100 ppm STEL 426 mg/m ³ STEL

Biological occupational exposure limits

An occupational medicine specialist familiar with national and regional regulations and standards must be consulted to establish a program of medical examinations for workers exposed to substances with biological limit values

Chemical Name	Australia	ACGIH	United Kingdom	European Union
Styrene 100-42-5	-	Mandelic acid plus phenylglyoxylic acid: 400 mg/g creatinine urine end of shift Styrene: 40 µg/L urine end shift	-	

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles. Face protection shield.

Skin and body protection Antistatic footwear. Wear fire flame resistant/retardant clothing. Gloves made of plastic or rubber. Suitable protective clothing. Apron.

Respiratory protection Where respiratory protection is required, use a respirator selected and in accordance with AS/NZS 1715 and AS/NZS 1716.

Environmental exposure controls Do not allow into any sewer, on the ground or into any body of water.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid
Appearance Pink ting
Colour Pink ting
Odour Characteristic Styrene
Odour threshold No information available

Property	Values	Remarks • Method
pH		No information available
Melting point / freezing point		No information available
Boiling point / boiling range	145°C	(based on components)
Flash point	31°C	Tag Closed Cup
Evaporation rate	0.49	
Flammability (solid, gas)		No information available
Flammability Limit in Air		
Upper flammability limit:	6.1%	

Lower flammability limit:	1.1%	hPa, 20°C Derived from solvent
Vapour pressure	6	Derived from solvent
Vapour density	3.6	
Relative density	0.95	
Water solubility		Insoluble
Solubility(ies)	-	No information available
Partition coefficient		No information available
Autoignition temperature	490°C	No information available
Decomposition temperature		No information available
Kinematic viscosity	300 mm ² /s	
Dynamic viscosity	< 300 mPa s	No information available
Explosive properties	No information available	
Oxidising properties	No information available	

Other Information

VOC Content (%)	Not applicable
Density	No information available
•	This information may be derived from the components in the preparation.

Section 10: STABILITY AND REACTIVITY

Reactivity	No Data Available.
Chemical stability	Stable under normal conditions.
Explosion data	
Sensitivity to Mechanical Impact	None
Sensitivity to Static Discharge	May be ignited by heat, sparks or flames.

Possibility of Hazardous Reactions

HAZARDOUS POL YMERISATION MAY OCCUR UPON DEPLETION OF INHIBITOR.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Strong acids. Strong bases. Strong oxidising agents.

Hazardous Decomposition Products

Decomposition products can include and are not limited to: Styrene.

Section 11: TOXICOLOGICAL INFORMATION**Acute toxicity****Information on likely routes of exposure****Product Information**

Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
Eye contact	Specific test data for the substance or mixture is not available. Irritating to eyes. (based on components). Causes serious eye irritation.
Skin contact	Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

Converted acute toxicity point estimates may have been used when only acute toxicity hazard classification is available.

ATEmix (oral)	1,250.00
ATEmix (inhalation-vapour)	14.00
ATEmix (inhalation-dust/mist)	1.90
0% of the mixture consists of ingredient(s) of unknown toxicity	

Chemical Name	Oral <i>W50</i>	Dermal LD50	Inhalation LC50
Styrene	= 1000 mg/kg (Rat)	-	= 11.7 mg/L (Rat)4 h
N,N-Diethylaniline	= 600 mg/kg (Rat)	-	= 1920 mg/m ³ (Rat)4 h

See section 16 for terms and abbreviations

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Skin corrosion/irritation**

Classification based on data available for ingredients. Irritating to skin.

Serious eye damage/eye irritation

Classification based on data available for ingredients. Irritating to eyes.

Sensitisation

May cause sensitisation by skin contact.

Germ cell mutagenicity

No information available.

Carcinogenicity***IARC (international Agency for Research on Cancer)***

Group 1 - Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive toxicity

Classification based on data available for ingredients. Contains a known or suspected reproductive toxin. The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

STOT - single exposure

May cause respiratory irritation.

STOT - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

No information available.

Section 12: ECOLOGICAL INFORMATION**Ecotoxicity**

Unknown Aquatic Toxicity 0.% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Fish
Styrene	19.03 - 33.53 mg/L LCSO 96 h <i>Lepomis macrochirus</i> static 6.7S - 14.5 mg/L LCSO 96 h <i>Pimephales promelas</i> static 3.24 - 4.99 mg/L LCSO 96 h <i>Pimephales promelas</i> flow-through
N,N-Diethylaniline	88.7S - 9S.32 mg/L LCSO 96 h <i>Poecilia reticulata</i> static 164 mg/L LC50 96 h <i>Pimephales promelas</i> flow through 38.5 mg/L LC50 96 h <i>Oncorhynchus mykiss</i>

Chemical Name	Crustacea
Styrene	3.3 - 7.4 mg/L ECSO 48 h <i>Daphnia magna</i>
N,N-Diethylaniline	35.4 mg/L EC50 24 h <i>Dalpnia magna</i> 10 - 16mg/L EC50 48 h <i>Daphnia magna</i> semi-static

Chemical Name	Algae/aQuatic plants
Styrene	0.46 - 4.3 mg/L ECSO 72 h <i>Pseudokirchneriella subcapitata</i> static 0.1S - 3.2 mg/L ECSO 96 h <i>Pseudokirchneriella subcapitata</i> static 1.4 mg/L ECSO 72 h <i>Pseudokirchneriella subcapitata</i> 0.72 mg/L ECSO 96 h <i>Pseudokirchneriella subcapitata</i>

Persistence and degradability

No information available.

Bioaccumulative potential

Chemical Name	Partition coefficient
Styrene	2.95
N,N-Diethylaniline	3.31

Mobility**Mobility in soil** No information available.**Mobility** No information available.**Other adverse effects****Endocrine Disruptor Information.**

Chemical Name	EU-Endocrine Disrupters Candidate List	EU-Endocrine Disruptors – Evaluated Substances	Endocrine Disrupting potential
Styrene	Group 1 Chemical	High Exposure Concern	-

Section 13: DISPOSAL CONSIDERATIONS**Waste treatment methods****Waste from residues/unused products** Hazardous wastes must be transported by a licensed hazardous waste transporter and disposed of or treated in a licensed hazardous waste treatment, storage, disposal or recycling facility.**Contaminated packaging** Disposal should be in accordance with applicable regional, national and local laws and regulations. Observe all label precautions until container is cleaned, reconditioned or destroyed. Refer to all federal, state and local regulations prior to disposal of container and unused contents by reuse, recycle or disposal.**Section 14: TRANSPORT INFORMATION****ADG**

UN Number	UN1866
Proper shipping name	Resin solution
Description	UN1866, Resin solution, 3, III
Hazard Class	3
Packing Group	III
Special Provisions	223,*
Hazchem code	•3Y
IERG	14

IMDG

UN/ID no	UN1866
Proper shipping name	Resin solution
Description	UN1866, Resin solution, 3, III, (31°C c.c.)
Hazard Class	3
Packing Group	III
EmS-No	F-E, S-E
Special Provisions	223, 995

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available

IATA

UN/ID no	UN1866
Proper shipping name	Resin solution
Description	UN1866, Resin solution, 3, III
Hazard Class	3
Packing Group	III
ERG Code	3L

Section 15: REGULATORY INFORMATION**Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Australia**

Classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG). Classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonised System (GHS)

See section 8 for national exposure control parameters

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

Classified as a scheduled poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

Poison Schedule Number S5

Major hazard (accident/incident planning) regulation Verify that license requirements are met

Hazardous chemical category	Threshold quantity (T)
Liquids that meet the criteria for Class 3 Packing Group II or III	50 000
Liquids with flash points <61°C kept above their boiling points at ambient conditions	200

International Inventories

AICS - Australian Inventory of Chemical Substances	Listed or exempt
DSI - Canadian Domestic Substances List	No information available
IECSC - China Inventory of Existing Chemical Substances	No information available
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Listed or exempt Notified Chemical Substances	No information available
ENCS - Japan Existing and New Chemical Substances	No information available
KECL - Korean Existing and Evaluated Chemical Substances	No information available
NZIoC - New Zealand Inventory of Chemicals	Listed or exempt
PICCS - Philippines Inventory of Chemicals and Chemical Substances	No information available
CICR - Turkey Chemical Inventory Control Regulation	No information available
NCSR - Taiwan National Chemical Substance Registry	No information available
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory	No information available

For confirmation on the European Reach status contact the FGA Regional Compliance group for additional information

International Regulations

Ozone-depleting substances (ODS)	Not applicable
Persistent Organic Pollutants	Not applicable
Export Notification requirements	Not applicable

Section 16: ANY OTHER RELEVANT INFORMATION

Revision Date 19-Nov- 2016

Revision Note The symbol (*) in the margin of this SDS indicates that this line has been revised.

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value		Skin designation
C	Carcinogen		

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet