

# SAFETY DATA SHEET

## SEPTONE FIBERGLASS POLYESTER RESIN

Infosafe No.: MTFBN  
ISSUED Date : 10/08/2016  
ISSUED by: ITW AAMTECH

### 1. IDENTIFICATION

#### GHS Product Identifier

SEPTONE FIBERGLASS POLYESTER RESIN

#### Product Code

ABFR, ABFR2, MFR250, MFR500

#### Company Name

ITW AAMTECH

#### Address

100 Hassall Street Wetherill Park  
NSW 2164 Australia

#### Telephone/Fax Number

Tel: +61 2 9828 0900

Fax: +61 2 9725 4698

#### Emergency phone number

1800 039 008 (24 hours)|+61 3 9573 3112 (24 hours)

#### Recommended use of the chemical and restrictions on use

Composites fabrication. This product is sold alone or as one part of the multi part kit called 'SEPTONE FIBREGLASS REPAIR KIT' (Part Numbers ABFR & ABFR2) Under the Australian Dangerous Goods Code, this product can be transported under UN3269 POLYESTER RESIN KIT when shipped as a complete kit.

### 2. HAZARD IDENTIFICATION

#### GHS classification of the substance/mixture

Acute Toxicity - Inhalation: Category 4

Aspiration Hazard: Category 1

Flammable Liquids: Category 3

Skin Corrosion/Irritation: Category 2

#### Signal Word (s)

DANGER

#### Hazard Statement (s)

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

#### Pictogram (s)

Flame, Exclamation mark, Health hazard



#### 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.  
P271 Use only outdoors or in a well-ventilated area.

#### Precautionary statement – Response

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider  
P321 Specific treatment (see advice on this label).  
P331 Do NOT induce vomiting.  
P370+P378 In case of fire: Use... to extinguish.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P312 Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.  
P337+P313 If eye irritation persists: Get medical advice/attention.

#### 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 authorised chemical landfill or if organic to high temperature incineration

#### Other Information

GHS Classification [1]: Flammable Liquid Category 3, Acute Toxicity (Inhalation) Category 4, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2, Aspiration Hazard Category 1

Legend: 1. Classified by ; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

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#### Information on Composition

Substances

See section below for composition of Mixtures

NOTE: Manufacturer has supplied full ingredient information to allow assessment.

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

#### Ingredients

Name	CAS	Proportion
Polyester Resin	Not available	45-65 %
Styrene	100-42-5	35-55 %
Silica amorphous	7631-86-9	0-1.5 %
Metal naphthenates and/or octoates	Not Available	0-1 %
Quinone and/or phenolic inhibitors	Not Available	0-0.5 %
Amine and/or aniline derivatives	Not Available	0-0.5 %

### 4. FIRST-AID MEASURES

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#### Inhalation

If fumes or combustion products are inhaled remove from contaminated area.

Lay patient down. Keep warm and rested.

Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.

Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained.

Perform CPR if necessary.

Transport to hospital, or doctor, without delay.

## **Ingestion**

For advice, contact a Poisons Information Centre or a doctor at once.

Urgent hospital treatment is likely to be needed.

If swallowed do NOT induce vomiting.

If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.

Observe the patient carefully.

Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.

Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.

Transport to hospital or doctor without delay.

## **Skin**

If skin contact occurs:

Immediately remove all contaminated clothing, including footwear.

Flush skin and hair with running water (and soap if available).

Seek medical attention in event of irritation.

## **Eye contact**

If this product comes in contact with the eyes:

Wash out immediately with fresh running water.

Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.

Seek medical attention without delay; if pain persists or recurs seek medical attention.

Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

## **Indication of immediate medical attention and special treatment needed if necessary**

For acute or short term repeated exposures to styrene:

### **INHALATION:**

Severe exposures should have cardiac monitoring to detect arrhythmia.

Catecholamines, especially epinephrine (adrenaline) should be used cautiously (if at all).

Aminophylline and inhaled beta-two selective bronchodilators (e.g. salbutamol) are the drugs of choice for treatment of bronchospasm.

### **INGESTION:**

Ipecac syrup should be given for ingestions exceeding 3ml (styrene)/kg.

For patients at risk of aspiration because of obtundation, intubation should precede lavage.

Pneumonitis is a significant risk. Watch the patient closely in an upright (alert patient) or left lateral head-down position (obtunded patient) to reduce aspiration potential. [Ellenhorn and Barceloux: Medical Toxicology]

### **BIOLOGICAL EXPOSURE INDEX - BEI**

These represent the determinants observed in specimens collected from a healthy worker who has been exposed at the Exposure Standard (ES or TLV):

Determinant: 1. Mandelic acid in urine

Index: 800 mg/gm creatinine

Sampling Time: End of shift

Comments: NS

Index: 300 mg/gm creatinine

Sampling Time: Prior to next shift

Comments: NS

Determinant: 2. Phenylglyoxylic acid in urine

Index: 240 mg/gm creatinine

Sampling Time: End of shift

Comments: NS

Index: 100 mg/gm creatinine

Sampling Time: Prior to next shift

Determinant: 3. Styrene in venous blood

Index: 0.55 mg/L

Sampling Time: End of shift

Comments: SQ

Index: 0.02 mg/L  
Sampling Time: Prior to next shift  
Comments: SQ

NS: Non-specific determinant; also seen after exposure to other materials.  
SQ: Semi-quantitative determinant - Interpretation may be ambiguous; should be used as a screening test or confirmatory test.  
B: Background levels occur in specimens collected from subjects NOT exposed

## 5. FIRE-FIGHTING MEASURES

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### Suitable Extinguishing Media

Foam.  
Dry chemical powder.  
BCF (where regulations permit).  
Carbon dioxide.  
Water spray or fog - Large fires only.

### Specific Methods

Alert Fire Brigade and tell them location and nature of hazard.  
May be violently or explosively reactive.  
Wear breathing apparatus plus protective gloves.  
Prevent, by any means available, spillage from entering drains or water course.  
If safe, switch off electrical equipment until vapour fire hazard removed.  
Use water delivered as a fine spray to control fire and cool adjacent area.  
Avoid spraying water onto liquid pools.

### Specific Hazards Arising From The Chemical

#### Fire Incompatibility

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

#### Fire/Explosion Hazard

Liquid and vapour are flammable.  
Moderate fire hazard when exposed to heat or flame.  
Vapour forms an explosive mixture with air.  
Moderate explosion hazard when exposed to heat or flame.  
Vapour may travel a considerable distance to source of ignition.  
Heating may cause expansion or decomposition leading to violent rupture of containers.  
On combustion, may emit toxic fumes of carbon monoxide (CO).

### Hazchem Code

•3Y

### Decomposition Temperature

Not Available

## 6. ACCIDENTAL RELEASE MEASURES

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### Clean-up Methods - Small Spillages

Remove all ignition sources.  
Clean up all spills immediately.  
Avoid breathing vapours and contact with skin and eyes.  
Control personal contact with the substance, by using protective equipment.  
Contain and absorb small quantities with vermiculite or other absorbent material.  
Wipe up.  
Collect residues in a flammable waste container.

### Clean-up Methods - Large Spillages

Clear area of personnel and move upwind.  
Alert Fire Brigade and tell them location and nature of hazard.  
May be violently or explosively reactive.  
Wear breathing apparatus plus protective gloves.

Prevent, by any means available, spillage from entering drains or water course.  
No smoking, naked lights or ignition sources.  
Increase ventilation.

#### **Other Information**

Personal Protective Equipment advice is contained in Section 8 (EXPOSURE CONTROLS/PERSONAL PROTECTION) of the SDS.

## **7. HANDLING AND STORAGE**

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### **Precautions for Safe Handling**

Safe handling

Avoid all personal contact, including inhalation.  
Wear protective clothing when risk of overexposure occurs.  
Use in a well-ventilated area.  
Prevent concentration in hollows and sumps.  
DO NOT enter confined spaces until atmosphere has been checked.  
Avoid smoking, naked lights or ignition sources.  
Avoid generation of static electricity.

Other information

Store in original containers in approved flame-proof area.  
No smoking, naked lights, heat or ignition sources.  
DO NOT store in pits, depressions, basements or areas where vapours may be trapped.  
Keep containers securely sealed.  
Store away from incompatible materials in a cool, dry well ventilated area.  
Protect containers against physical damage and check regularly for leaks.  
Observe manufacturer's storage and handling recommendations contained within this MSDS.  
| Avoid prolonged storage over 38 degC.

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

Suitable container  
Packing as supplied by manufacturer.  
Plastic containers may only be used if approved for flammable liquid.  
Check that containers are clearly labelled and free from leaks.

Storage incompatibility

Avoid storage with oxidisers  
Contamination with polymerisation catalysts - peroxides, persulfates, oxidising agents - also strong acids, strong alkalies, will cause polymerisation with exotherm - generation of heat.  
Polymerisation of large quantities may be violent - even explosive.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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### **Occupational exposure limit values**

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Not Available

EMERGENCY LIMITS

Ingredient: styrene

TEEL-0: 20 ppm

TEEL-1: 20 ppm

TEEL-2: 130 ppm

TEEL-3: 1100 ppm

Ingredient: silica amorphous

TEEL-0: 0.3 / 6 / 10 / 2 ppm

TEEL-1: 15 / 0.9 / 30 / 6 / 18 ppm

TEEL-2: 50 / 1.5 / 200 / 125 / 10 / 30 ppm

TEEL-3: 500 / 250 / 50 ppm

Ingredient: polyester resin  
Original IDLH: Not Available  
Revised IDLH: Not Available

Ingredient: styrene  
Original IDLH: Not Available  
Revised IDLH: Not Available

Ingredient: silica amorphous  
Original IDLH: Not Available  
Revised IDLH: Not Available

Ingredient: metal naphthenates and/or octoates  
Original IDLH: Not Available  
Revised IDLH: Not Available

Ingredient: quinone and/or phenolic inhibitors  
Original IDLH: Not Available  
Revised IDLH: Not Available

Ingredient: amine and/or aniline derivatives  
Original IDLH: Not Available  
Revised IDLH: Not Available

#### **Appropriate Engineering Controls**

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.

Employers may need to use multiple types of controls to prevent employee overexposure.

#### **Respiratory Protection**

Type A Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor: up to 10 x ES

Half-Face Respirator: A-AUS

Full-Face Respirator: -

Powered Air Respirator: A-PAPR-AUS / Class 1

Required Minimum Protection Factor: up to 50 x ES

Half-Face Respirator: -

Full-Face Respirator: A-AUS / Class 1

Powered Air Respirator: -

Required Minimum Protection Factor: up to 100 x ES

Half-Face Respirator: -

Full-Face Respirator: A-2

Powered Air Respirator: A-PAPR-2 ^

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO<sub>2</sub>), G = Agricultural chemicals, K = Ammonia(NH<sub>3</sub>), Hg = Mercury, NO = Oxides of nitrogen, MB =

Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

#### **Eye Protection**

Safety glasses with side shields.

Chemical goggles.

Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable.

#### **Hand Protection**

Wear chemical protective gloves, e.g. PVC.

#### **Personal Protective Equipment**

Other protection

Overalls.

PVC Apron.

PVC protective suit may be required if exposure severe.

Eyewash unit.

Ensure there is ready access to a safety shower.

#### **Thermal Hazards**

Not Available

#### **Footwear**

Wear safety footwear or safety gumboots, e.g. Rubber

#### **Other Information**

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the computergenerated selection:

Septone Fiberglass Polyester Resin

Material: PE/EVAL/PE

CPI: A

Material: PVA

CPI: A

Material: TEFLON

CPI: A

Material: NATURAL RUBBER

CPI: C

Material: NITRILE

CPI: C

Material: NITRILE+PVC

CPI: C

Material: PVC

CPI: C

Material: SARANEX-23

CPI: C

\* CPI - Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### Form

Liquid

### Appearance

Hazy blue or pink flammable liquid with a characteristic styrene odour; does not mix with water.

### Odour

Not Available

### Decomposition Temperature

Not Available

### Boiling Point

145°C

### Solubility in Water

Immiscible

### pH

Not Applicable (as supplied)

Not Applicable as a solution (1%)

### Vapour Pressure

0.6 kPa at 20°C

### Vapour Density (Air=1)

3.6

### Evaporation Rate

0.49 BuAC = 1

### Odour Threshold

Not Available

### Viscosity

Not Available

### Volatile Component

Not Available

### Partition Coefficient: n-octanol/water

Not Available

### Surface tension

Not Available

### Flash Point

31 °C (TCC)

### Flammability

Flammable.

### Auto-Ignition Temperature

Not Available

### Explosion Limit - Upper

6.1%

### Explosion Limit - Lower

1.1%

### Explosion Properties

Not Available



**Molecular Weight**

Not Applicable

**Oxidising Properties**

Not Available

**Relative density**

1.1

**Melting/Freezing Point**

Not Available

**Other Information**

Taste: Not Available

Gas group: Not Available

VOC g/L: Not Available

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**10. STABILITY AND REACTIVITY**

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**Reactivity**

See section 7 (HANDLING AND STORAGE)

**Chemical Stability**

Hazardous polymerisation may occur if contaminated, or at elevated temperatures.

**Conditions to Avoid**

See section 7 (HANDLING AND STORAGE)

**Incompatible materials**

See section 7 (HANDLING AND STORAGE)

**Hazardous Decomposition Products**

See section 5 (FIREFIGHTING MEASURES)

**Possibility of hazardous reactions**

See section 7 (HANDLING AND STORAGE)

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**11. TOXICOLOGICAL INFORMATION**

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**Toxicology Information**

SEPTONE FIBERGLASS POLYESTER RESIN

TOXICITY

Not Available

IRRITATION

Not Available

styrene

TOXICITY

Inhalation (Mouse) LC50: 9500 mg/m<sup>3</sup>/4h

Inhalation (Rat) LC50: 24000 mg/m<sup>3</sup>/4h

Intraperitoneal (Mouse) LD50: 660 mg/kg

Intraperitoneal (Rat) LD50: 898 mg/kg

Intravenous (Mouse) LD50: 90 mg/kg

Oral (Mouse) LD50: 316 mg/kg

Oral (Rat) LD50: 2650 mg/kg

Not Available

IRRITATION

Eye (rabbit): 100 mg/24h - moderate

Skin (rabbit): 500 mg - mild

Not Available

silica amorphous

## TOXICITY

Dermal (rabbit) LD50: >5000 mg/kg \*

Inhalation (rat) LC50: >0.139 mg/l/14h \*

Oral (rat) LD50: 3160 mg/kg

Not Available

## IRRITATION

\* [Grace]

Eye (rabbit): non-irritating \*

Skin (rabbit): non-irritating \*

Not Available

Not available. Refer to individual constituents.

## STYRENE

The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.

## SILICA AMORPHOUS

For silica amorphous:

When experimental animals inhale synthetic amorphous silica (SAS) dust, it dissolves in the lung fluid and is rapidly eliminated. If swallowed, the vast majority of SAS is excreted in the faeces and there is little accumulation in the body. Following absorption across the gut, SAS is eliminated via urine without modification in animals and humans. SAS is not expected to be broken down (metabolised) in mammals.

After ingestion, there is limited accumulation of SAS in body tissues and rapid elimination occurs. Intestinal absorption has not been calculated, but appears to be insignificant in animals and humans. SASs injected subcutaneously are subjected to rapid dissolution and removal.

Reports indicate high/prolonged exposures to amorphous silicas induced lung fibrosis in experimental animals; in some experiments these effects were reversible. [PATTYS]

Acute Toxicity: Data Not Available to make classification

### Ingestion

Accidental ingestion of the material may be damaging to the health of the individual.

Styrene is absorbed into the body following oral or inhalation exposure. Complete absorption occurred in fasted rats given a total of 3.147 mg styrene by gavage in an aqueous solution. A peak blood level of 6 micrograms/mL was reached within minutes. Following oral administration of 20 mg/kg of radiolabeled styrene to rats, the highest organ levels were found in the kidney, liver, and pancreas.

Styrene is presumed to be metabolised to styrene oxide which is then converted to styrene glycol. Styrene glycol is metabolised to either mandelic acid or to benzoic acid and then hippuric acid.

### Inhalation

Central nervous system (CNS) depression is seen at styrene exposures exceeding 50 ppm, whilst headache, fatigue, nausea and dizziness are reported consistently at exposures of 100 ppm.

Eye and throat irritation occurred in human volunteers exposed to 376 ppm styrene for 1 hour and was accompanied by increased nasal secretion at exposures of 800 ppm for 4 hours. At the end of an 8-hour workshift, workers exposed to 212 ppm styrene had higher urinary levels of alanineaminopeptidase and N-acetyl-glucosaminidase than unexposed workers, indicating potential renal effects of styrene .

Evidence exists that 5% to 10% reductions in sensory nerve conduction occur at 100 ppm and that slowed reaction times occur after exposure to 50 ppm. Exposure at 370 ppm produces unpleasant subjective symptoms and signs of neurological impairment. High vapour concentrations may have a toxic and anaesthetic effect which may lead to unconsciousness or death. Exposure at 1000 ppm can rapidly lead to unconsciousness whilst exposure to 10000 ppm may cause death in less than one hour.

### Skin

Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.

Evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy

layer of the skin (spongiosis) and intracellular oedema of the epidermis.

Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects.

Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

#### **Eye**

Evidence exists, or practical experience predicts, that the material may cause severe eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Eye contact may cause significant inflammation with pain. Corneal injury may occur; permanent impairment of vision may result unless treatment is prompt and adequate. Repeated or prolonged exposure to irritants may cause inflammation characterised by a temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.

#### **Skin corrosion/irritation**

Data available to make classification

#### **Serious eye damage/irritation**

Data available to make classification

#### **Mutagenicity**

Data Not Available to make classification

#### **Respiratory sensitisation**

Data Not Available to make classification

#### **Skin Sensitisation**

Data Not Available to make classification

#### **Carcinogenicity**

Data Not Available to make classification

#### **Reproductive Toxicity**

Data Not Available to make classification

#### **STOT-single exposure**

Data Not Available to make classification

#### **STOT-repeated exposure**

Data Not Available to make classification

#### **Aspiration Hazard**

Data available to make classification

#### **Chronic Effects**

Exposure to styrene may aggravate central nervous system disorders, chronic respiratory disease, skin disease, kidney disease and liver disease.

Workers engaged in the manufacture of styrene polymers with exposure to generally <1 ppm for 1-36 years had low erythrocyte counts and altered liver enzyme profiles. Blood and liver effects do not appear to be of concern for human exposures to styrene. Occupational studies in humans show styrene to be a neurotoxicant.

Occupational styrene exposure causes central and peripheral nervous system effects. It causes a reversible decrease in colour discrimination and in some studies effects on hearing have been reported.

Neuro-optic pathways have been shown to be particularly vulnerable to organic solvent exposure and studies support the proposition that styrene exposure can induce dose-dependent colour vision loss.

#### **Other Information**

CMR STATUS

Not Applicable

## **12. ECOLOGICAL INFORMATION**

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#### **Ecological information**

Toxicity

DO NOT discharge into sewer or waterways.

for styrene:

Transport: Styrene is expected to volatilise from surface waters as predicted by its Henry's Law constant. The chemical is also removed from waters by adsorption onto soils and sediments.

Under certain conditions, styrene may leach through soil (particularly sandy soils) and enter ground water

#### Transformation/ Persistence:

Air: In the atmosphere, styrene reacts with both hydroxyl radicals and ozone with estimated half-lives of 3.5 and 9 hours, respectively. The chemical is also degraded in the presence of NOX and natural sunlight. Styrene contributes to the formation of photochemical smog due to indirect photochemical reactions. Smog chamber experiments with simulated sunlight and auto exhaust as a source of styrene, showed a 55% disappearance of styrene in 2 hours .

#### **Persistence and degradability**

Ingredient: Not Available

Persistence: Water/Soil: Not Available

Persistence: Air: Not Available

#### **Mobility**

Ingredient: Not Available

Mobility: Not Available

#### **Bioaccumulative Potential**

Ingredient: Not Available

Bioaccumulation: Not Available

## 13. DISPOSAL CONSIDERATIONS

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#### **Disposal considerations**

Product / Packaging disposal

Containers may still present a chemical hazard/ danger when empty.

Return to supplier for reuse/ recycling if possible.

Otherwise:

If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.

Where possible retain label warnings and MSDS and observe all notices pertaining to the product.

## 14. TRANSPORT INFORMATION

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#### **U.N. Number**

1866

#### **UN proper shipping name**

RESIN SOLUTION, flammable

#### **Transport hazard class(es)**

3

#### **Packing Group**

III

#### **Hazchem Code**

•3Y

#### **IERG Number**

14

#### **Other Information**

Labels Required

Marine Pollutant: no

HAZCHEM: •3Y

Land transport (ADG)

UN number: 1866

Packing group: III

UN proper shipping name: RESIN SOLUTION, flammable

Environmental hazard: No relevant data

Transport hazard class(es):

Class: 3

Subrisk:

Special precautions for user:

Special provisions: 223 \*  
limited quantity: 5 L

Sea transport (IMDG-Code / GGVSee)  
UN number: 1866  
Packing group: III  
UN proper shipping name: RESIN SOLUTION flammable  
Environmental hazard:  
Transport hazard class(es):  
IMDG Class: 3  
IMDG Subrisk:  
Special precautions for user:  
EMS Number: F-E,S-E  
Special provisions: 223 955  
Limited Quantities: 5 L

## 15. REGULATORY INFORMATION

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### Regulatory information

Safety, health and environmental regulations / legislation specific for the substance or mixture  
styrene(100-42-5) is found on the following regulatory lists

"Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)", "International Maritime Dangerous Goods Requirements (IMDG Code)", "IOFI Global Reference List of Chemically Defined Substances", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5", "OSPAR List of Chemicals for Priority Action", "International Maritime Dangerous Goods Requirements (IMDG Code) - Substance Index", "FisherTransport Information", "Australia FAISD Handbook - First Aid Instructions, Warning Statements, and General Safety Precautions", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)", "Australia Dangerous Goods Code (ADG Code) - List of Emergency Action Codes", "OECD List of High Production Volume (HPV) Chemicals", "Australia Drinking Water Guideline Values For Physical and Chemical Characteristics", "International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs", "Belgium Federal Public Service Mobility and Transport, Regulations concerning the International Carriage of Dangerous Goods by Rail - Table A: Dangerous Goods List - RID 2013 (Dutch)", "International Chemical Secretariat (ChemSec) SIN List (\*Substitute It Now!)", "International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft", "Australia National Pollutant Inventory", "Australia Dangerous Goods Code (ADG Code) - Goods Too Dangerous To Be Transported", "Sigma-AldrichTransport Information", "Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm - Domestic water supply quality", "WHO Guidelines for Drinking-water Quality - Guideline values for chemicals that are of health significance in drinking-water", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (Spanish)", "Australia High Volume Industrial Chemical List (HVICL)", "OECD Existing Chemicals Database", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "Australia Dangerous Goods Code (ADG Code) - Dangerous Goods List", "Australia Hazardous Substances Information System - Consolidated Lists", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)", "Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (Domestic water supply - organic compounds)", "IMO IBC Code Chapter 17: Summary of minimum requirements", "International Fragrance Association (IFRA) Survey: Transparency List"

silica amorphous(7631-86-9) is found on the following regulatory lists

"International Council of Chemical Associations (ICCA) - High Production Volume List", "Australia - Tasmania - Work Health and Safety Regulations 2012 - Restricted hazardous chemicals", "Australia - Western Australia Hazardous Substances Requiring Health Surveillance", "Australia - Northern Territories Work Health and Safety National Uniform Legislation Regulations- Requirements for health monitoring - Hazardous chemicals (other than lead) requiring health monitoring", "FisherTransport Information", "Australia - Tasmania Hazardous Substances Requiring Health Surveillance", "Australia - Victoria Occupational Health and Safety Regulations - Schedule 5 Hazardous Substances: Substances Prohibited for Specified Uses", "OECD List of High Production Volume (HPV) Chemicals", "Australia Drinking Water Guideline Values For Physical and Chemical Characteristics", "Australia - South Australia - Work Health and Safety Regulations 2012 - Restricted hazardous chemicals", "Australia - Western Australia Hazardous Substances Prohibited for Specified Uses or Methods of Handling", "International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs", "Australia Occupational Health and Safety (Commonwealth Employment) (National Standards) Regulations 1994 - Hazardous Substances Requiring Health Surveillance", "Australia - South Australia - Work Health and Safety Regulations 2012 - Requirements for health monitoring - Hazardous chemicals (other than lead) requiring health monitoring", "International Numbering System for Food Additives", "Australia - Queensland Work Health and Safety Regulation - Hazardous chemicals (other than lead) requiring health monitoring", "Sigma-AldrichTransport Information", "Australia - New South Wales - Work Health and Safety Regulation 2011 - Requirements for health monitoring -Hazardous chemicals (other than lead) requiring health monitoring",

"Australia High Volume Industrial Chemical List (HVICL)", "Australia Work Health and Safety Regulations 2011 - Hazardous chemicals (other than lead) requiring health monitoring", "OECD Existing Chemicals Database", "Australia - New South Wales - Work Health and Safety Regulation 2011 Restricted hazardous chemicals", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "Australia Hazardous Substances Information System - Consolidated Lists", "Australia - New South Wales Hazardous Substances Requiring Health Surveillance", "CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP", "Australia - Tasmania - Work Health and Safety Regulations 2012 - Requirements for Health Monitoring - Hazardous chemicals (other than lead) requiring health monitoring", "Australia - South Australia - Hazardous Substances Requiring Health Surveillance", "Australia Therapeutic Goods Administration (TGA) Substances that may be used as active ingredients in Listed medicines", "Acros Transport Information", "International Fragrance Association (IFRA) Survey: Transparency List"

#### Poisons Schedule

S5

## 16. OTHER INFORMATION

### Empirical Formula & Structural Formula

Not Applicable

### User Codes

User Title Label	User Codes
Task #	24325
Transcription Sign Off	24325 TC 20122017

### Other Information

Version No: 6.1.1.1

Safety Data Sheet according to WHS and ADG requirements

Hazard Alert Code: 2

S.GHS.AUS.EN

Chemical Name: Not Applicable

CAS number: Not Applicable

Other means of identification: Not Available

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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## END OF SDS

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