

Septone Fiberglass Polyester Resin

ITW AAMTech

Chemwatch: 5102-61

Version No: 6.1.1.1

Safety Data Sheet according to WHS and ADG requirements

Chemwatch Hazard Alert Code: 2

Issue Date: 26/05/2014

Print Date: 26/05/2014

Initial Date: Not Available

S.GHS.AUS.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	Septone Fiberglass Polyester Resin
Chemical Name	Not Applicable
Synonyms	Product Code: ABFR, MFR250, MFR500
Proper shipping name	RESIN SOLUTION, flammable
Chemical formula	Not Applicable
Other means of identification	Not Available
CAS number	Not Applicable

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Composites fabrication. This product is sold alone or as one part of the multi part kit called 'SEPTONE FIBREGLASS REPAIR KIT' (Product Code ABFR).
--------------------------	---

Details of the supplier of the safety data sheet

Registered company name	ITW AAMTech
Address	100 Hassall Street Street, Wetherill Park 2164 NSW Australia
Telephone	+61 2 9828 0900
Fax	+61 2 9725 4698
Website	Not Available
Email	general@septone.com.au

Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	1800 039 008 (24 hours)
Other emergency telephone numbers	+61 3573 3112 (24 hours)

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the Model WHS Regulations and the ADG Code.

Poisons Schedule	S5
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 Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI

Label elements

GHS label elements	
--------------------	---

SIGNAL WORD	DANGER
-------------	---------------

Hazard statement(s)

H226	Flammable liquid and vapour
H332	Harmful if inhaled
H315	Causes skin irritation
H319	Causes serious eye irritation

Septone Fiberglass Polyester Resin

H304 May be fatal if swallowed and enters airways

Precautionary statement(s): Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P271	Use only outdoors or in a well-ventilated area.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/intrinsically safe equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.

Precautionary statement(s): 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(s): Storage

P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary statement(s): Disposal

P501	Dispose of contents/container to authorised chemical landfill or if organic to high temperature incineration
-------------	--

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
Not Available	45-65	polyester resin
100-42-5	35-55	styrene
7631-86-9	0-1.5	silica amorphous
Not Available	0-1	metal naphthenates and/or octoates
Not Available	0-0.5	quinone and/or phenolic inhibitors
Not Available	0-0.5	amine and/or aniline derivatives

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> ▶ 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.
Skin Contact	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> ▶ 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.
Inhalation	<ul style="list-style-type: none"> ▶ If fumes or combustion products are inhaled remove from contaminated area. ▶ Lay patient down. Keep warm and rested. ▶ Prosthesis 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	<ul style="list-style-type: none"> ▶ 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.

Septone Fiberglass Polyester Resin

- ▶ 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.

Indication of any immediate medical attention and special treatment needed

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	Index	Sampling Time	Comments
1. Mandelic acid in urine	800 mg/gm creatinine	End of shift	NS
	300 mg/gm creatinine	Prior to next shift	NS
2. Phenylglyoxylic acid in urine	240 mg/gm creatinine	End of shift	NS
	100 mg/gm creatinine	Prior to next shift	
3. Styrene in venous blood	0.55 mg/L	End of shift	SQ
	0.02 mg/L	Prior to next shift	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

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

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

Special hazards arising from the substrate or mixture

Fire Incompatibility

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

Advice for firefighters

Fire Fighting

- ▶ 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.

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).

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills

- ▶ 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.

Major Spills

- ▶ 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.

Septone Fiberglass Polyester Resin

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	<ul style="list-style-type: none"> ▶ 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	<ul style="list-style-type: none"> ▶ 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. <p>Avoid prolonged storage over 38 degC.</p>

Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> ▶ 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	<p>Avoid storage with oxidisers</p> <ul style="list-style-type: none"> ▶ Contamination with polymerisation catalysts - peroxides, persulfates, oxidising agents - also strong acids, strong alkalis, will cause polymerisation with exotherm - generation of heat. ▶ Polymerisation of large quantities may be violent - even explosive.

PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Not Available

EMERGENCY LIMITS

Ingredient	TEEL-0	TEEL-1	TEEL-2	TEEL-3
styrene	20 ppm	20 ppm	130 ppm	1100 ppm
silica amorphous	0.3 / 6 / 10 / 2 ppm	15 / 0.9 / 30 / 6 / 18 ppm	50 / 1.5 / 200 / 125 / 10 / 30 ppm	500 / 250 / 50 ppm

Ingredient	Original IDLH	Revised IDLH
polyester resin	Not Available	Not Available
styrene	Not Available	Not Available
silica amorphous	Not Available	Not Available
metal naphthenates and/or octoates	Not Available	Not Available
quinone and/or phenolic inhibitors	Not Available	Not Available
amine and/or aniline derivatives	Not Available	Not Available

Exposure controls

Appropriate engineering controls	<p>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:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>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.</p> <p>Employers may need to use multiple types of controls to prevent employee overexposure.</p>
Personal protection	
Eye and face protection	<ul style="list-style-type: none"> ▶ 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

Septone Fiberglass Polyester Resin

	<ul style="list-style-type: none"> ▶ 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.
Skin protection	See Hand protection below
Hand protection	<ul style="list-style-type: none"> ▶ Wear chemical protective gloves, e.g. PVC. ▶ Wear safety footwear or safety gumboots, e.g. Rubber
Body protection	See Other protection below
Other protection	<ul style="list-style-type: none"> ▶ 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

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 **computer-**

generated selection:

Septone Fiberglass Polyester Resin

Material	CPI
PE/EVAL/PE	A
PVA	A
TEFLON	A
NATURAL RUBBER	C
NITRILE	C
NITRILE+PVC	C
PVC	C
SARANEX-23	C

* CPI - Chemwatch 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.

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	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	A-AUS	-	A-PAPR-AUS / Class 1
up to 50 x ES	-	A-AUS / Class 1	-
up to 100 x ES	-	A-2	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(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Hazy blue or pink flammable liquid with a characteristic styrene odour; does not mix with water.		
Physical state	Liquid	Relative density (Water = 1)	1.1
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Applicable	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	145	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	31 (TCC)	Taste	Not Available
Evaporation rate	0.49 BuAC = 1	Explosive properties	Not Available
Flammability	Flammable.	Oxidising properties	Not Available
Upper Explosive Limit (%)	6.1	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1.1	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	0.6 at 20C	Gas group	Not Available
Solubility in water (g/L)	Immiscible	pH as a solution(1%)	Not Applicable
Vapour density (Air = 1)	3.6	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
-------------------	---------------

Septone Fiberglass Polyester Resin

Chemical stability	Hazardous polymerisation may occur if contaminated, or at elevated temperatures.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	<p>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.</p> <p>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 alanine-aminopeptidase and N-acetyl-glucosaminidase than unexposed workers, indicating potential renal effects of styrene .</p> <p>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.</p>
Ingestion	<p>Accidental ingestion of the material may be damaging to the health of the individual.</p> <p>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.</p> <p>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.</p>
Skin Contact	<p>Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.</p> <p>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.</p> <p>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.</p>
Eye	<p>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.</p>
Chronic	<p>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.</p> <p>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.</p> <p>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.</p>

Septone Fiberglass Polyester Resin	TOXICITY	IRRITATION
	Not Available	Not Available

styrene	TOXICITY	IRRITATION
	Inhalation (Mouse) LC50: 9500 mg/m ³ /4h	Eye (rabbit): 100 mg/24h - moderate
	Inhalation (Rat) LC50: 24000 mg/m ³ /4h	Skin (rabbit): 500 mg - mild
	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	Not Available	

silica amorphous	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >5000 mg/kg *	* [Grace]
	Inhalation (rat) LC50: >0.139 mg/l/14h *	Eye (rabbit): non-irritating *
	Oral (rat) LD50: 3160 mg/kg	Skin (rabbit): non-irritating *
Not Available	Not Available	

Not available. Refer to individual constituents.

Septone Fiberglass Polyester Resin

STYRENE	<p>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.</p> <p>WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.</p>
SILICA AMORPHOUS	<p>For silica amorphous:</p> <p>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.</p> <p>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.</p> <p>Reports indicate high/prolonged exposures to amorphous silicas induced lung fibrosis in experimental animals; in some experiments these effects were reversible. [PATTYS]</p>

Acute Toxicity	✔	Carcinogenicity	⊘
Skin Irritation/Corrosion	✔	Reproductivity	⊘
Serious Eye Damage/Irritation	✔	STOT - Single Exposure	⊘
Respiratory or Skin sensitisation	⊘	STOT - Repeated Exposure	⊘
Mutagenicity	⊘	Aspiration Hazard	✔

CMR STATUS

Not Applicable

SECTION 12 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	Persistence: Water/Soil	Persistence: Air
Not Available	Not Available	Not Available

Bioaccumulative potential

Ingredient	Bioaccumulation
Not Available	Not Available

Mobility in soil

Ingredient	Mobility
Not Available	Not Available

SECTION 13 DISPOSAL CONSIDERATIONS**Waste treatment methods**

Product / Packaging disposal	<ul style="list-style-type: none"> ▶ Containers may still present a chemical hazard/ danger when empty. ▶ Return to supplier for reuse/ recycling if possible. <p>Otherwise:</p> <ul style="list-style-type: none"> ▶ 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.
-------------------------------------	--

SECTION 14 TRANSPORT INFORMATION**Labels Required**

Marine Pollutant	no	
HAZCHEM	+3Y	

Septone Fiberglass Polyester Resin

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

SECTION 15 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"

Septone Fiberglass Polyester Resin

SECTION 16 OTHER INFORMATION

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net/references

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.

This document is copyright. Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH. TEL (+61 3) 9572 4700.