Septone Gelcoat Repair Filler

ITW AAMTech

Chemwatch Hazard Alert Code: **2**

Chemwatch: **8704-33**
Version No: **2.1.1.1**
Safety Data Sheet according to WHS and ADG requirements

Issue Date: **23/05/2014**
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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 Gelcoat Repair Filler
Chemical Name	Not Applicable
Synonyms	Product Code: ABG400
Proper shipping name	POLYESTER RESIN KIT
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	Two part polyester repair filler, principally for use in repairing fibreglass gelcoat. This MSDS refers to the (major) filler component.

Details of the supplier of the safety data sheet

Registered company name	ITW AAMTech		
Address	100 Hassall 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 3 9573 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 Irrit. 2
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	**WARNING**

Hazard statement(s)

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

Precautionary statement(s): Prevention

Continued...

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.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/intrinsically safe equipment.

Precautionary statement(s): Response

P321	Specific treatment (see advice on this label).
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.
P302+P352	IF ON SKIN: Wash with plenty of water and soap
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Precautionary statement(s): Storage

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

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
100-42-5	10-30	styrene
14807-96-6	10-30	talc
471-34-1	10-30	calcium carbonate
13463-67-7	0-10	titanium dioxide
Not Available	30-60	ingredients determined not to be hazardous

SECTION 4 FIRST AID MEASURES

Description of first aid measures

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.
Skin Contact	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.
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.
Ingestion	▸ 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. ▸ Seek medical advice.

Indication of any immediate medical attention and special treatment needed

	Treat symptomatically. For acute or short term repeated exposures to styrene:

Continued...

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

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

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.

Continued...

	▸ No smoking, naked lights or ignition sources. ▸ Increase ventilation.
	Personal Protective Equipment advice is contained in Section 8 of the MSDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	▸ Containers, even those that have been emptied, may contain explosive vapours. ▸ Do NOT cut, drill, grind, weld or perform similar operations on or near containers. ▸ 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.
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 above 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.

PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	styrene	Styrene, monomer	213 (mg/m3) / 50 (ppm)	426 (mg/m3) / 100 (ppm)	Not Available	Not Available
Australia Exposure Standards	talc	Talc, (containing no asbestos fibres) / Soapstone (respirable dust)	2.5 (mg/m3) / 3 (mg/m3)	Not Available	Not Available	(see also Soapstone;This value is for inspirable dust containing no asbestos and < 1% crystalline silica (see Chapter 14))
Australia Exposure Standards	calcium carbonate	Calcium carbonate	10 (mg/m3)	Not Available	Not Available	This value is for inspirable dust containing no asbestos and < 1% crystalline silica (see Chapter 14)
Australia Exposure Standards	titanium dioxide	Titanium dioxide	10 (mg/m3)	Not Available	Not Available	This value is for inspirable dust containing no asbestos and < 1% crystalline silica (see Chapter 14)

EMERGENCY LIMITS

Ingredient	TEEL-0	TEEL-1	TEEL-2	TEEL-3
styrene	20(ppm)	20(ppm)	130(ppm)	1100(ppm)
talc	2(ppm)	2(ppm)	10(ppm)	500(ppm)
calcium carbonate	15(ppm)	45 / 30(ppm)	500 / 75(ppm)	350 / 500(ppm)
titanium dioxide	15(ppm)	15(ppm)	15(ppm)	500(ppm)

Ingredient	Original IDLH	Revised IDLH
styrene	5,000(ppm)	700(ppm)
talc	N.E.(mgm3)N.E.(ppm)	3,000 / 1,000(mgm3)
titanium dioxide	N.E.(mgm3)N.E.(ppm)	5,000(mgm3)

Exposure controls

Appropriate engineering controls	Use in a well-ventilated area

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	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.
Personal protection	
Eye and face 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.
Skin protection	See Hand protection below
Hand protection	▸ Wear chemical protective gloves, e.g. PVC. ▸ Wear safety footwear or safety gumboots, e.g. Rubber
Body protection	See Other protection below
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. · Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity. · For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets).
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 Gelcoat Repair Filler

Material	CPI
PE/EVAL/PE	A
PVA	A
TEFLON	A

* 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 / Class 1	-	A-PAPR-AUS / Class 1
up to 50 x ES	Air-line*	-	-
up to 100 x ES	-	A-3	-
100+ x ES	-	Air-line**	-

* - Continuous-flow; ** - Continuous-flow or positive pressure demand
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	Off white flammable paste with a styrene odour; does not mix with water. Upon the addition of the supplied Hardener (at the correct addition rate), the product will gel after approximately 5 minutes to become a white solid.

Physical state	Non Slump Paste	**Relative density (Water = 1)**	1.125
Odour	Not Available	**Partition coefficient n-octanol / water**	Not Available

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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)	150 for styrene	**Molecular weight (g/mol)**	Not Applicable
Flash point (°C)	31 TCC styrene	**Taste**	Not Available
Evaporation rate	0.49 for styrene BuAc=1	**Explosive properties**	Not Available
Flammability	Flammable.	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	6.1 (styrene)	**Surface Tension (dyn/cm or mN/m)**	Not Available
Lower Explosive Limit (%)	1.1 (styrene)	**Volatile Component (%vol)**	20 w/w
Vapour pressure (kPa)	Not Available	**Gas group**	Not Available
Solubility in water (g/L)	Immiscible	**pH as a solution(1%)**	Not Applicable
Vapour density (Air = 1)	Not Available	**VOC g/L**	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	Hazardous polymerisation may occur due to the improper addition of catalysation initiator (hardener). Never mix promoters such as metal organics or aniline derivatives with catalysation initiators such as organic peroxides, as an explosion may occur.
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	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 alanine-aminopeptidase 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.
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.
Skin Contact	The material produces moderate skin irritation; evidence exists, or practical experience predicts, that the material either ▸ produces moderate inflammation of the skin in a substantial number of individuals following direct contact, and/or ▸ produces significant, but moderate, 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. Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. Open cuts, abraded or irritated skin should not be exposed to this material 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 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. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.
Chronic	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.

Septone Gelcoat Repair Filler	**TOXICITY**	**IRRITATION**
	Not Available	Not Available

Continued...

styrene	**TOXICITY**	**IRRITATION**
	Inhalation (Mouse) LC50: 9500 mg/m3/4h	Eye (rabbit): 100 mg/24h - moderate
	Inhalation (Rat) LC50: 24000 mg/m3/4h	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
talc	**TOXICITY**	**IRRITATION**
		Skin (human): 0.3 mg/3d-I mild
	Not Available	Not Available
calcium carbonate	**TOXICITY**	**IRRITATION**
	Oral (Rat) LD50: 6450 mg/kg	Eye (rabbit): 0.75 mg/24h - SEVERE
		Skin (rabbit): 500 mg/24h-moderate
	Not Available	Not Available
titanium dioxide	**TOXICITY**	**IRRITATION**
	Oral (Mouse) LD50: >10000 mg/kg *	Skin (human): 0.3 mg /3D (int)-mild *
	Oral (Rat) LD50: >20000 mg/kg *	
	Not Available	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.
CALCIUM CARBONATE	No evidence of carcinogenic properties. No evidence of mutagenic or teratogenic effects.
TITANIUM DIOXIDE	The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. 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 epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis. For titanium dioxide: Humans can be exposed to titanium dioxide via inhalation, ingestion or dermal contact. In human lungs, the clearance kinetics of titanium dioxide is poorly characterized relative to that in experimental animals. * IUCLID
TALC, CALCIUM CARBONATE	Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production.

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

Continued...

Toxicity

DO NOT discharge into sewer or waterways.
|Styrene is toxic to fish, invertebrates and microorganisms, however, substantial aquatic exposure is not expected based on the volatile nature of this material. Styrene is readily biodegradable in aerobic conditions.The other components of this product are not biodegradable. However, they are practically non-toxic to aquatic species or in soils and may be safely disposed of in landfills.None of the components of this product is expected to bioaccumulate.

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	▸ Recycle wherever possible or consult manufacturer for recycling options. ▸ Consult State Land Waste Management Authority for disposal. ▸ Bury residue in an authorised landfill. ▸ Recycle containers if possible, or dispose of in an authorised landfill. |Product that may have been mixed with peroxide initiators (hardeners) prior to spillage should be mixed with inert fillers and removed to an open area. Allow time to gel and cure.Dispose of large amounts in a suitable chemical dump (check the local statutory requirements).

SECTION 14 TRANSPORT INFORMATION

Labels Required

	
Marine Pollutant	NO
HAZCHEM	•2YE

Land transport (ADG)

UN number	3269
Packing group	III
UN proper shipping name	POLYESTER RESIN KIT
Environmental hazard	No relevant data
Transport hazard class(es)	Class: 3 Subrisk:
Special precautions for user	Special provisions: 236 limited quantity: 5 L

Air transport (ICAO-IATA / DGR)

UN number	3269
Packing group	III
UN proper shipping name	Polyester resin kit †
Environmental hazard	No relevant data
Transport hazard class(es)	ICAO/IATA Class: 3 ICAO / IATA Subrisk: ERG Code: 3L
Special precautions for user	Special provisions: A66A163 Cargo Only Packing Instructions: 370 Cargo Only Maximum Qty / Pack: 5 kg

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Passenger and Cargo Packing Instructions	370
Passenger and Cargo Maximum Qty / Pack	5 kg
Passenger and Cargo Limited Quantity Packing Instructions	Y370
Passenger and Cargo Limited Maximum Qty / Pack	1 kg

Sea transport (IMDG-Code / GGVSee)

UN number	3269
Packing group	III
UN proper shipping name	POLYESTER RESIN KIT
Environmental hazard	
Transport hazard class(es)	IMDG Class: 3 IMDG Subrisk:
Special precautions for user	EMS Number: F-E,S-D Special provisions: 236 340 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)","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5","IOFI Global Reference List of Chemically Defined Substances","OSPAR List of Chemicals for Priority Action","Australia Exposure Standards","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","Australia Inventory of Chemical Substances (AICS)","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 Dangerous Goods Code (ADG Code) - Goods Too Dangerous To Be Transported","Australia National Pollutant Inventory","Sigma-AldrichTransport Information","Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm - Domestic water supply quality","Australia High Volume Industrial Chemical List (HVICL)","United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (Spanish)","WHO Guidelines for Drinking-water Quality - Guideline values for chemicals that are of health significance in drinking-water","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","International Air Transport Association (IATA) Dangerous Goods Regulations","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"
talc(14807-96-6) is found on the following regulatory lists	"Australia Exposure Standards","FisherTransport Information","Australia Inventory of Chemical Substances (AICS)","OECD List of High Production Volume (HPV) Chemicals","International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs","International Numbering System for Food Additives","Sigma-AldrichTransport Information","WHO Food Additives Series - Food Additives considered for specifications only","Australia High Volume Industrial Chemical List (HVICL)","Australia Hazardous Substances Information System - Consolidated Lists","CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP"
calcium carbonate(471-34-1) is found on the following regulatory lists	"International Council of Chemical Associations (ICCA) - High Production Volume List","Australia Exposure Standards","FisherTransport Information","Australia Inventory of Chemical Substances (AICS)","OECD List of High Production Volume (HPV) Chemicals","Australia Drinking Water Guideline Values For Physical and Chemical Characteristics","International Numbering System for Food Additives","Sigma-AldrichTransport Information","Australia High Volume Industrial Chemical List (HVICL)","GESAMP/EHS Composite List - GESAMP Hazard Profiles","CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP","Australia Therapeutic Goods Administration (TGA) Substances that may be used as active ingredients in Listed medicines","IMO IBC Code Chapter 17: Summary of minimum requirements","Acros Transport Information"
titanium dioxide(13463-67-7) is found on the following regulatory lists	"Australia Approved Active Constituents for Agricultural Chemical Products","Australia Exposure Standards","FisherTransport Information","OECD List of High Production Volume (HPV) Chemicals","Australia Inventory of Chemical Substances (AICS)","International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs","Australia Therapeutic Goods Administration (TGA) Australian regulatory guidelines for sunscreens (ARGS) - Sunscreening agents permitted as active ingredients in listed products","International Numbering System for Food Additives","Sigma-AldrichTransport Information","Australia Australian Pesticides and Veterinary Medicines Authority (APVM) Record of approved active constituents","Australia High Volume Industrial Chemical List (HVICL)","OECD Existing Chemicals Database","GESAMP/EHS Composite List - GESAMP Hazard Profiles","CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP","Australia Therapeutic Goods Administration (TGA) Substances that may be used as active ingredients in Listed medicines","IMO IBC Code Chapter 17: Summary of minimum requirements","International Fragrance Association (IFRA) Survey: Transparency List"

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:

Continued...

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.