Permatex Aviation Form-A-Gasket No. 3 Sealant Liquid 16oz.

ITW AAMTech

Chemwatch Hazard Alert Code: **3**

Chemwatch: **5057-96**
Version No: **11.1.1.1**
Safety Data Sheet according to WHS and ADG requirements

Issue Date: **05/09/2014**
Print Date: **16/09/2014**
Initial Date: **Not Available**
S.GHS.AUS.EN

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

Product Identifier

Product name	Permatex Aviation Form-A-Gasket No. 3 Sealant Liquid 16oz.
Chemical Name	Not Applicable
Synonyms	PX80017 Permatex Aviation Form-A-Gasket No. 3 Sealant Liquid 16oz., PX80018 Permatex Aviation Form-A-Gasket No. 3 Sealant Liquid 2oz., PX80019 Permatex Aviation Form-A-Gasket No. 3 Sealant Liquid 40z.
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	Use according to manufacturer's directions. Sealant

Details of the manufacturer/importer

Registered company name	ITW AAMTech
Address	100 Hassall Street 2164 NSW Australia
Telephone	1800 177 989
Fax	1800 308 556
Website	www.aamtech.com.au
Email	info@aamtech.com.au

Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	1800 039 008
Other emergency telephone numbers	+61 3 9573 3112

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	Not Applicable
GHS Classification [1]	Flammable Liquid Category 2, Acute Toxicity (Inhalation) Category 4, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2, Skin Sensitizer Category 1, STOT - SE (Resp. Irr.) Category 3
Legend:	*1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI*

Label elements

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GHS label elements	
SIGNAL WORD	**DANGER**

Hazard statement(s)

H225	Highly flammable liquid and vapour
H332	Harmful if inhaled
H315	Causes skin irritation
H319	Causes serious eye irritation
H317	May cause an allergic skin reaction
H335	May cause respiratory irritation

Precautionary statement(s): Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.

Precautionary statement(s): Response

P370+P378_1	In case of fire: Use alcohol resistant foam or normal protein foam for extinction.
P302+P352	IF ON SKIN: Wash with plenty of water and soap
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.

Precautionary statement(s): Storage

P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

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
68187-84-8	30-40	blown castor oil
64-17-5	10-20	ethanol
67-63-0	<3	isopropanol
8050-09-7	20-30	rosin-colophony
14807-96-6	10-20	talc
67-56-1	0.1-1	methanol

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

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	▸ 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

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.
Treat symptomatically.
For acute or short term repeated exposures to ethanol:

- Acute ingestion in non-tolerant patients usually responds to supportive care with special attention to prevention of aspiration, replacement of fluid and correction of nutritional deficiencies (magnesium, thiamine pyridoxine, Vitamins C and K).
- Give 50% dextrose (50-100 ml) IV to obtunded patients following blood draw for glucose determination.
- Comatose patients should be treated with initial attention to airway, breathing, circulation and drugs of immediate importance (glucose, thiamine).
- Decontamination is probably unnecessary more than 1 hour after a single observed ingestion. Cathartics and charcoal may be given but are probably not effective in single ingestions.
- Fructose administration is contra-indicated due to side effects.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

	▸ Water spray or fog. ▸ Alcohol stable foam. ▸ Dry chemical powder. ▸ 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 in the event of a fire. ▸ Prevent, by any means available, spillage from entering drains or water course.
Fire/Explosion Hazard	▸ Liquid and vapour are highly flammable. ▸ Severe fire hazard when exposed to heat, flame and/or oxidisers. ▸ Vapour may travel a considerable distance to source of ignition. ▸ Heating may cause expansion or decomposition leading to violent rupture of containers.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills	▸ Remove all ignition sources. ▸ Clean up all spills immediately.

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	▸ Avoid breathing vapours and contact with skin and eyes. ▸ Control personal contact with the substance, by using protective equipment.
Major Spills	Slippery when spilt. ▸ **DO NOT** touch the spill material ▸ Clear area of personnel and move upwind. ▸ Alert Fire Brigade and tell them location and nature of hazard. ▸ May be violently or explosively reactive.

	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. ▸ **DO NOT** allow clothing wet with material to stay in contact with skin ▸ Avoid all personal contact, including inhalation. ▸ Wear protective clothing when risk of exposure occurs.
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.

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. ▸ For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type.
Storage incompatibility	Alcohols ▸ are incompatible with strong acids, acid chlorides, acid anhydrides, oxidising and reducing agents. ▸ reacts, possibly violently, with alkaline metals and alkaline earth metals to produce hydrogen ▸ react with strong acids, strong caustics, aliphatic amines, isocyanates, acetaldehyde, benzoyl peroxide, chromic acid, chromium oxide, dialkylzincs, dichlorine oxide, ethylene oxide, hypochlorous acid, isopropyl chlorocarbonate, lithium tetrahydroaluminate, nitrogen dioxide, pentafluoroguanidine, phosphorus halides, phosphorus pentasulfide, tangerine oil, triethylaluminium, triisobutylaluminium ▸ should not be heated above 49 deg. C. when in contact with aluminium equipment ▸ Avoid strong bases.

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	ethanol	Ethyl alcohol	1880 mg/m3 / 1000 ppm	Not Available	Not Available	Not Available
Australia Exposure Standards	isopropanol	Isopropyl alcohol	983 mg/m3 / 400 ppm	1230 mg/m3 / 500 ppm	Not Available	Not Available
Australia Exposure Standards	talc	Soapstone (respirable dust) / Talc, (containing no asbestos fibres)	3 mg/m3 / 2.5 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	methanol	Methyl alcohol	262 mg/m3 / 200 ppm	328 mg/m3 / 250 ppm	Not Available	Sk

EMERGENCY LIMITS

Ingredient	TEEL-0	TEEL-1	TEEL-2	TEEL-3
Permatex Aviation Form-A-Gasket No. 3 Sealant Liquid 16oz.	Not Available	Not Available	Not Available	Not Available

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Ingredient	Original IDLH	Revised IDLH
blown castor oil	Not Available	Not Available
ethanol	15,000 ppm	3,300 [LEL] ppm
isopropanol	12,000 ppm	2,000 [LEL] ppm
rosin-colophony	Not Available	Not Available
talc	N.E. mg/m3 / N.E. ppm	1,000 mg/m3
methanol	25,000 ppm	6,000 ppm

Exposure controls

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.
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.
Skin protection	See Hand protection below
Hands/feet protection	▸ Wear chemical protective gloves, e.g. PVC. ▸ Wear safety footwear or safety gumboots, e.g. Rubber **NOTE:** ▸ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. ▸ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.
Body protection	See Other protection below
Other protection	▸ Overalls. ▸ PVC Apron. ▸ PVC protective suit may be required if exposure severe. ▸ Eyewash unit.
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:
Permatex Aviation Form-A-Gasket No. 3 Sealant Liquid 16oz.

Material	CPI
BUTYL	C
BUTYL/NEOPRENE	C
NAT+NEOPR+NITRILE	C
NATURAL RUBBER	C
NATURAL+NEOPRENE	C
NEOPRENE	C
NEOPRENE/NATURAL	C
NITRILE	C
NITRILE+PVC	C
PE/EVAL/PE	C
PVA	C
PVC	C

Respiratory protection

Type AX-P 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	AX-AUS P2	-	AX-PAPR-AUS / Class 1 P2
up to 50 x ES	-	AX-AUS / Class 1 P2	-
up to 100 x ES	-	AX-2 P2	AX-PAPR-2 P2 ^

^ - 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)

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PVDC/PE/PVDC	C
SARANEX-23	C
SARANEX-23 2-PLY	C
TEFLON	C
VITON/NEOPRENE	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.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Dark brown highly flammable liquid with an alcoholic odour; partially miscible with water.

Physical state	Liquid	**Relative density (Water = 1)**	1.09
Odour	Not Available	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not Available
pH (as supplied)	Not Available	**Decomposition temperature**	Not Available
Melting point / freezing point (°C)	Not Available	**Viscosity (cSt)**	Not Available
Initial boiling point and boiling range (°C)	82	**Molecular weight (g/mol)**	Not Applicable
Flash point (°C)	16 (TCC)	**Taste**	Not Available
Evaporation rate	7.7 Ether=1	**Explosive properties**	Not Available
Flammability	Flammable.	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	12	**Surface Tension (dyn/cm or mN/m)**	Not Available
Lower Explosive Limit (%)	2	**Volatile Component (%vol)**	19.4% (VOC - by wt)
Vapour pressure (kPa)	4.4 @20C	**Gas group**	Not Available
Solubility in water (g/L)	Partly miscible	**pH as a solution(1%)**	Not Available
Vapour density (Air = 1)	2.07	**VOC g/L**	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	▸ Unstable in the presence of incompatible materials. ▸ Product is considered stable. ▸ Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition	See section 5

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products	

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual. Limited evidence or practical experience suggests that the material may produce irritation of the respiratory system, in a significant number of individuals, following inhalation. In contrast to most organs, the lung is able to respond to a chemical insult by first removing or neutralising the irritant and then repairing the damage. The repair process, which initially evolved to protect mammalian lungs from foreign matter and antigens, may however, produce further lung damage resulting in the impairment of gas exchange, the primary function of the lungs.
Ingestion	Swallowing of the liquid may cause aspiration of vomit into the lungs with the risk of haemorrhaging, pulmonary oedema, progressing to chemical pneumonitis; serious consequences may result. Signs and symptoms of chemical (aspiration) pneumonitis may include coughing, gasping, choking, burning of the mouth, difficult breathing, and bluish coloured skin (cyanosis). Accidental ingestion of the material may be damaging to the health of the individual. Effects on the nervous system characterise over-exposure to higher aliphatic alcohols.
Skin Contact	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.
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	Practical experience shows that skin contact with the material is capable either of inducing a sensitisation reaction in a substantial number of individuals, and/or of producing a positive response in experimental animals. On the basis, primarily, of animal experiments, concern has been expressed by at least one classification body that the material may produce carcinogenic or mutagenic effects; in respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. Long-term exposure to ethanol may result in progressive liver damage with fibrosis or may exacerbate liver injury caused by other agents.

Permatex Aviation Form-A-Gasket No. 3 Sealant Liquid 16oz.	**TOXICITY**	**IRRITATION**
	Not Available	Not Available
blown castor oil	**TOXICITY**	**IRRITATION**
		Eye (rabbit): 500 mg
		Skin (rabbit): 100 mg/24h SEVERE
	Not Available	Not Available
ethanol	**TOXICITY**	**IRRITATION**
	Inhalation (rat) LC50: 20,000 ppm/10h	Eye (rabbit): 500 mg SEVERE
	Inhalation (rat) LC50: 64000 ppm/4h	Eye (rabbit):100mg/24hr-moderate
	Oral (rat) LD50: 7060 mg/kg	Skin (rabbit):20 mg/24hr-moderate
		Skin (rabbit):400 mg (open)-mild
	Not Available	Not Available
isopropanol	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: 12800 mg/kg	Eye (rabbit): 10 mg - moderate

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	Inhalation (Mouse) LC50: 53000 mg/m3/4h	Eye (rabbit): 100 mg - SEVERE
	Inhalation (Rat) LC50: 72600 mg/m3/4h	Eye (rabbit): 100mg/24hr-moderate
	Intraperitoneal (Guinea pig) LD50: 2560 mg/kg	Skin (rabbit): 500 mg - mild
	Intraperitoneal (Mouse) LD50: 4477 mg/kg	
	Intraperitoneal (Rabbit) LD50: 667 mg/kg	
	Intraperitoneal (Rat) LD50: 2735 mg/kg	
	Intravenous (Mouse) LD50: 1509 mg/kg	
	Intravenous (Rabbit) LD50: 1184 mg/kg	
	Intravenous (Rat) LD50: 1088 mg/kg	
	Oral (Mouse) LD50: 3600 mg/kg	
	Oral (Rabbit) LD50: 6410 mg/kg	
	Oral (Rat) LD50: 5000 mg/kg	
	Oral (rat) LD50: 5045 mg/kg	
	Not Available	Not Available
rosin-colophony	**TOXICITY**	**IRRITATION**
	Not Available	Not Available
talc	**TOXICITY**	**IRRITATION**
		Skin (human): 0.3 mg/3d-I mild
	Not Available	Not Available
methanol	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: 15800 mg/kg	Eye (rabbit): 100 mg/24h-moderate
	Inhalation (rat) LC50: 64000 ppm/4h	Eye (rabbit): 40 mg-moderate
	Oral (rat) LD50: 5628 mg/kg	Skin (rabbit): 20 mg/24 h-moderate
	Not Available	Not Available

** Value obtained from manufacturer's msds*
unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances

Permatex Aviation Form-A-Gasket No. 3 Sealant Liquid 16oz.	Oral LD50: 5000 mg/kg * (species not reported) *[Manufacturer]
BLOWN CASTOR OIL	data for similar material - castor oil Nil available Skin (human): 50 mg/48h mild Some tumorigenic effects have been reported in animal studies [RTECS]
ISOPROPANOL	For isopropanol (IPA): **Acute toxicity:** Isopropanol has a low order of acute toxicity. It is irritating to the eyes, but not to the skin. Very high vapor concentrations are irritating to the eyes, nose, and throat, and prolonged exposure may produce central nervous system depression and narcosis. Human volunteers reported that exposure to 400 ppm isopropanol vapors for 3 to 5 min.
TALC	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

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	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.
Permatex Aviation Form-A-Gasket No. 3 Sealant Liquid 16oz., ROSIN-COLOPHONY	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions.
ETHANOL, METHANOL	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.

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

Legend: ✔ *– Data required to make classification available*
✘ *– Data available but does not fill the criteria for classification*
⊘ *– Data Not Available to make classification*

CMR STATUS

SKIN	methanol	Australia Exposure Standards - Skin	Sk

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

DO NOT discharge into sewer or waterways.

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	▸ 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.

SECTION 14 TRANSPORT INFORMATION

Labels Required

Continued...

	
Marine Pollutant	NO
HAZCHEM	•3YE

Land transport (ADG)

UN number	1866
Packing group	II
UN proper shipping name	RESIN SOLUTION, flammable
Environmental hazard	No relevant data
Transport hazard class(es)	Class: 3 Subrisk: Not Applicable
Special precautions for user	Special provisions: * Limited quantity: 5 L

Air transport (ICAO-IATA / DGR)

UN number	1866
Packing group	II
UN proper shipping name	Resin solution flammable
Environmental hazard	No relevant data
Transport hazard class(es)	ICAO/IATA Class: 3 ICAO / IATA Subrisk: Not Applicable ERG Code: 3L
Special precautions for user	Special provisions: A3 Cargo Only Packing Instructions: 364 Cargo Only Maximum Qty / Pack: 60 L Passenger and Cargo Packing Instructions: 353 Passenger and Cargo Maximum Qty / Pack: 5 L Passenger and Cargo Limited Quantity Packing Instructions: Y341 Passenger and Cargo Limited Maximum Qty / Pack: 1 L

Sea transport (IMDG-Code / GGVSee)

UN number	1866
Packing group	II
UN proper shipping name	RESIN SOLUTION flammable
Environmental hazard	No relevant data
Transport hazard class(es)	IMDG Class: 3 IMDG Subrisk: Not Applicable
Special precautions for user	EMS Number: F-E , S-E Special provisions: Not Applicable Limited Quantities: 5 L

Inland waterways transport (ADNR / River Rhine): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

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

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Source	Ingredient	Pollution Category
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	rosin-colophony	Y
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	methanol	Y

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

blown castor oil(68187-84-8) is found on the following regulatory lists	"Australia Inventory of Chemical Substances (AICS)","OECD List of High Production Volume (HPV) Chemicals"
ethanol(64-17-5) is found on the following regulatory lists	"International Maritime Dangerous Goods Requirements (IMDG Code)","World Anti-Doping Agency - The 2009 Prohibited List World Anti-Doping Code - Substances Prohibited in Particular Sports (French)","International Council of Chemical Associations (ICCA) - High Production Volume List","IOFI Global Reference List of Chemically Defined Substances","World Anti-Doping Agency - The 2009 Prohibited List World Anti-Doping Code - Substances Prohibited in Particular Sports (Korean)","Australia GHS Hazardous Chemical Information List (Draft)","Australia Exposure Standards","WHO Model List of Essential Medicines - Children","International Maritime Dangerous Goods Requirements (IMDG Code) - Substance Index","Australia FAISD Handbook - First Aid Instructions, Warning Statements, and General Safety Precautions","FisherTransport Information","United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)","IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO","Australia Dangerous Goods Code (ADG Code) - List of Emergency Action Codes","Australia Therapeutic Goods Administration (TGA) Substances that may be used in Listed medicines","IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances","OSPAR National List of Candidates for Substitution – Norway","WHO Model List of Essential Medicines - Adults","OECD List of High Production Volume (HPV) Chemicals","Joint FAO/WHO Expert Committee on Food Additives (JECFA) - Specifications for Flavourings","Australia Inventory of Chemical Substances (AICS)","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix B (Part 3)","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)","Australia High Volume Industrial Chemical List (HVICL)","Australia National Pollutant Inventory","World Anti-Doping Agency - The 2014 Prohibited List World Anti-Doping Code - Substances Prohibited in Particular Sports","UNECE - Kiev Protocol on Pollutant Release and Transfer Registers - Annex II","IMO IBC Code Chapter 18: List of products to which the Code does not apply","OECD Existing Chemicals Database","Sigma-AldrichTransport Information","United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (Spanish)","World Anti-Doping Agency - The 2009 Prohibited List World Anti-Doping Code - Substances Prohibited in Competition (German)","GESAMP/EHS Composite List - GESAMP Hazard Profiles","Australia Hazardous Substances Information System - Consolidated Lists","FEMA Generally Recognized as Safe (GRAS) Flavoring Substances 23 - Examples of FEMA GRAS Substances with Non-Flavor Functions","Australia Dangerous Goods Code (ADG Code) - Dangerous Goods List","International Air Transport Association (IATA) Dangerous Goods Regulations","Joint FAO/WHO Expert Committee on Food Additives (JECFA) - Compendium of Food Additive Specifications - Extraction solvents","International Fragrance Association (IFRA) Survey: Transparency List","IMO IBC Code Chapter 17: Summary of minimum requirements","Acros Transport Information"
isopropanol(67-63-0) is found on the following regulatory lists	"International Maritime Dangerous Goods Requirements (IMDG Code)","IOFI Global Reference List of Chemically Defined Substances","Australia GHS Hazardous Chemical Information List (Draft)","Australia Exposure Standards","International Maritime Dangerous Goods Requirements (IMDG Code) - Substance Index","FisherTransport Information","United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)","IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO","Australia Dangerous Goods Code (ADG Code) - List of Emergency Action Codes","Australia Therapeutic Goods Administration (TGA) Substances that may be used in Listed medicines","IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances","OSPAR National List of Candidates for Substitution – Norway","OECD List of High Production Volume (HPV) Chemicals","Joint FAO/WHO Expert Committee on Food Additives (JECFA) - Specifications for Flavourings","Australia Inventory of Chemical Substances (AICS)","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)","Australia High Volume Industrial Chemical List (HVICL)","Australia National Pollutant Inventory","IMO IBC Code Chapter 18: List of products to which the Code does not apply","OECD Existing Chemicals Database","Sigma-AldrichTransport Information","United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (Spanish)","GESAMP/EHS Composite List - GESAMP Hazard Profiles","Australia Hazardous Substances Information System - Consolidated Lists","Australia Dangerous Goods Code (ADG Code) - Dangerous Goods List","International Air Transport Association (IATA) Dangerous Goods Regulations","Joint FAO/WHO Expert Committee on Food Additives (JECFA) - Compendium of Food Additive Specifications - Extraction solvents","International Fragrance Association (IFRA) Survey: Transparency List","IMO IBC Code Chapter 17: Summary of

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	minimum requirements","Acros Transport Information"
rosin-colophony(8050-09-7) is found on the following regulatory lists	"International Council of Chemical Associations (ICCA) - High Production Volume List","Australia - Victoria Occupational Health and Safety Regulations - Schedule 9: Materials at Major Hazard Facilities (And Their Threshold Quantity) Table 2","IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk","Australia GHS Hazardous Chemical Information List (Draft)","Australia Therapeutic Goods Administration (TGA) Substances that may be used in Listed medicines","FisherTransport Information","OECD List of High Production Volume (HPV) Chemicals","Australia Inventory of Chemical Substances (AICS)","International Fragrance Association (IFRA) Standards Prohibited","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix B (Part 3)","Sigma-AldrichTransport Information","GESAMP/EHS Composite List - GESAMP Hazard Profiles","Australia Hazardous Substances Information System - Consolidated Lists","IMO IBC Code Chapter 17: Summary of minimum requirements"
talc(14807-96-6) is found on the following regulatory lists	"Australia Exposure Standards","Joint FAO/WHO Expert Committee on Food Additives (JECFA) - Compendium of Food Additive Specifications - Anticaking agent","Australia Therapeutic Goods Administration (TGA) Substances that may be used in Listed medicines","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","International Numbering System for Food Additives","Australia High Volume Industrial Chemical List (HVICL)","WHO Food Additives Series - Food Additives considered for specifications only","Sigma-AldrichTransport Information","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"
methanol(67-56-1) is found on the following regulatory lists	"International Maritime Dangerous Goods Requirements (IMDG Code)","IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)","International Council of Chemical Associations (ICCA) - High Production Volume List","IMDG Code - Medical First Aid Guide for use in accidents involving Dangerous Goods (MFAG) - Appendix 15 List Of Substances","Australia FAISD Handbook - Safety Directions","Australia GHS Hazardous Chemical Information List (Draft)","Australia Exposure Standards","Australia - Tasmania - Work Health and Safety Regulations 2012 - Restricted hazardous chemicals","International Maritime Dangerous Goods Requirements (IMDG Code) - Substance Index","Australia FAISD Handbook - First Aid Instructions, Warning Statements, and General Safety Precautions","FisherTransport Information","United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)","Australia Dangerous Goods Code (ADG Code) - List of Emergency Action Codes","Australia - Northern Territories Work Health and Safety National Uniform Legislation Regulations- Restricted hazardous chemicals","Australia Therapeutic Goods Administration (TGA) Substances that may be used in Listed medicines","IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances","United Nations Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments","OSPAR National List of Candidates for Substitution – Norway","Australia - Queensland Work Health and Safety Regulation - Restricted hazardous chemicals","OECD List of High Production Volume (HPV) Chemicals","Australia Inventory of Chemical Substances (AICS)","Australia - South Australia - Work Health and Safety Regulations 2012 - Restricted hazardous chemicals","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)","Australia - New South Wales - Work Health and Safety Regulation 2011 Restricted hazardous chemicals","Australia High Volume Industrial Chemical List (HVICL)","Australia National Pollutant Inventory","OECD Existing Chemicals Database","Sigma-AldrichTransport Information","United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (Spanish)","GESAMP/EHS Composite List - GESAMP Hazard Profiles","Australia Work Health and Safety Regulations 2011 - Restricted hazardous chemicals","Australia Hazardous Substances Information System - Consolidated Lists","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)","Australia Dangerous Goods Code (ADG Code) - Dangerous Goods List","International Air Transport Association (IATA) Dangerous Goods Regulations","Joint FAO/WHO Expert Committee on Food Additives (JECFA) - Compendium of Food Additive Specifications - Extraction solvents","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6","IMO IBC Code Chapter 17: Summary of minimum requirements","Acros Transport Information","Australia - New South Wales Hazardous Substances Prohibited for Specific Uses"

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.

end of SDS