

Safety Data Sheet

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Document group: 31-0310-8 **Version number:** 4.00

Issue Date: 03/05/2022 **Supersedes date:** 04/03/2020

This Safety Data Sheet has been prepared in accordance with the Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (Safe Work Australia, December 2011)

SECTION 1: Identification

1.1. Product identifier

3M[™] Paintable Undercoating Pouch, PN08747

Product Identification Numbers

60-4551-0913-6

1.2. Recommended use and restrictions on use

Recommended use

Automotive, Automotive Undercoating

For Industrial or Professional use only.

1.3. Supplier's details

Address: 3M Australia - Building A, 1 Rivett Road, North Ryde NSW 2113

Telephone: 136 136

E Mail: productinfo.au@mmm.com

Website: www.3m.com.au

1.4. Emergency telephone number

EMERGENCY: 1800 097 146 (Australia only)

SECTION 2: Hazard identification

This product is classified as a hazardous chemical according to the Model Work Health and Safety Regulations, 2011, in accordance with applicable State and Territory legislation.

Refer to Section 14 of this Safety Data Sheets for product Dangerous Goods Classification.

2.1. Classification of the substance or mixture

Flammable Liquid: Category 2.

Skin Corrosion/Irritation: Category 2.

Serious Eye Damage/Irritation: Category 2.

Carcinogenicity: Category 1A.
Reproductive Toxicity: Category 1.

Specific Target Organ Toxicity (repeated exposure): Category 1.

2.2. Label elements

The label elements below were prepared in accordance with the Code of Practice on Preparation of Safety Data Sheets for Hazardous Chemicals (Safe Work Australia, December 2011). This information may be different from the actual product label.

Signal word

Danger

Symbols

Flame | Exclamation mark | Health Hazard |

Pictograms







Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H350 May cause cancer.

H360 May damage fertility or the unborn child.

H372 Causes damage to organs through prolonged or repeated exposure: nervous system

sensory organs.

Precautionary statements

General:

P102 Keep out of reach of children.

Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P233 Keep container tightly closed.

P240 Ground and bond container and receiving equipment.

P241 Use explosion-proof electrical, ventilating and lighting equipment.

P242 Use non-sparking tools.

P243 Take action to prevent static discharges.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280F Wear respiratory protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin

with water or shower.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P314 Get medical advice/attention if you feel unwell.

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P332 + P313 If skin irritation occurs: Get medical advice/attention.
P337 + P313 IF eye irritation persists: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

P370 + P378 In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry

chemical or carbon dioxide to extinguish.

Storage:

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

P405 Store locked up.

Disposal:

P501 Dispose of contents/container in accordance with applicable

local/regional/national/international regulations.

2.3. Other assigned/identified product hazards

None known.

2.4. Other hazards which do not result in classification

May be harmful if inhaled.

May cause drowsiness or dizziness.

Toxic to aquatic life with long lasting effects.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Weight
Toluene	108-88-3	15 - 40
Solvent Naphtha (Petroleum), Light	64742-89-8	10 - 30
Aliphatic		
Alpha-Methylstyrene-Vinyltoluene	9017-27-0	5 - 10
Copolymer		
Hydrocarbons, C6-20, Polymers,	Trade Secret	5 - 10
Hydrogenated		
Hydrogenated Styrene-Butadiene Polymer	Trade Secret	5 - 10
Bis(Hydrogenated Tallow Alkyl)Dimethyl	Trade Secret	1 - 5
Ammonium Salts with Bentonite		
Heptane	142-82-5	1 - 5
Octane	111-65-9	1 - 5
Carbon black	1333-86-4	0.5 - 1.5
Methanol	67-56-1	< 0.5
Quartz	14808-60-7	< 0.15

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye contact

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Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

If swallowed

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness). Target organ effects following prolonged or repeated exposure. See Section 11 for additional details.

4.3. Indication of any immediate medical attention and special treatment required

Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Hydrocarbons.	During combustion.
Formaldehyde	During combustion.
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.

5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

Hazchem Code: •3YE

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. WARNING! A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up

Contain spill. Cover spill area with a fire-extinguishing foam. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised

person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid breathing of dust created by cutting, sanding, grinding or machining. Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Wear low static or properly grounded shoes. Use personal protective equipment (eg. gloves, respirators...) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapour accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from heat. Store away from acids. Store away from oxidising agents.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Toluene	108-88-3	ACGIH	TWA:20 ppm	A4: Not class. as human
				carcinogen, Ototoxicant
Toluene	108-88-3	Australia OELs	TWA(8 hours):191 mg/m3(50	SKIN
			ppm);STEL(15 minutes):574	
			mg/m3(150 ppm)	
Octane	111-65-9	ACGIH	TWA:300 ppm	
Octane	111-65-9	Australia OELs	TWA(8 hours):1400	
			mg/m3(300 ppm);STEL(15	
			minutes):1750 mg/m3(375	
			ppm)	
Carbon black	1333-86-4	ACGIH	TWA(inhalable fraction):3	A3: Confirmed animal
			mg/m3	carcinogen.
Carbon black	1333-86-4	Australia OELs	TWA(8 hours): 3 mg/m3	
Heptane	142-82-5	ACGIH	TWA:400 ppm;STEL:500 ppm	
Heptane	142-82-5	Australia OELs	TWA(8 hours):1640	
			mg/m3(400 ppm);STEL(15	
			minutes):2050 mg/m3(500	
			ppm)	
Quartz	14808-60-7	ACGIH	TWA(respirable	A2: Suspected human
			fraction):0.025 mg/m3	carcin.
Quartz	14808-60-7	Australia OELs	TWA(8 hours):0.1	
			mg/m3;Limit value not	
			established:	
Methanol	67-56-1	ACGIH	TWA:200 ppm;STEL:250 ppm	Danger of cutaneous
				absorption

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Methanol	67-56-1	Australia OELs	TWA(8 hours):262	SKIN
			mg/m3(200 ppm);STEL(15	
			minutes):328 mg/m3(250 ppm)	

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

Australia OELs: Australia. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment

CMRG: Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average STEL: Short Term Exposure Limit

CEIL: Ceiling Sen: Sensitiser

Sk: Absorption through the skin may be a significant source of exposure.

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment. Use explosion-proof ventilation equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Indirect vented goggles.

Select and use eye protection in accordance with AS/NZS 1336. Eye protection should comply with the performance specifications of AS/NZS 1337.

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity. Gloves made from the following material(s) are recommended: Polymer laminate

if this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Select and use gloves according to AS/NZ 2161.

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer. Select and use respirators according to AS/NZS 1715. Respirators should comply with AS/NZS 1716 performance specifications. For information about respirators, call 3M on 1800 024 464.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.	
v		
Colour	Black	
Odour	Solvent	
Odour threshold	No data available.	
рН	No data available.	
Melting point/Freezing point	No data available.	
Boiling point/Initial boiling point/Boiling range	114 °C	
Flash point	7.2 °C [Test Method:Closed Cup]	
Evaporation rate	No data available.	
Flammability (solid, gas)	Not applicable.	
Flammable Limits(LEL)	1.1 %	
Flammable Limits(UEL)	No data available.	
Vapour pressure	No data available.	
Vapor Density and/or Relative Vapor Density	No data available.	
Density	0.86 g/ml	
Relative density	0.86 [Ref Std:WATER=1]	
Water solubility	Negligible	
Solubility- non-water	No data available.	
Partition coefficient: n-octanol/water	No data available.	
Autoignition temperature	No data available.	
Decomposition temperature	No data available.	
Viscosity/Kinematic Viscosity	4,500 - 7,000 mPa-s	
Volatile organic compounds (VOC)	576 g/l [Test Method:calculated SCAQMD rule 443.1]	
Volatile organic compounds (VOC)	67 % weight [Test Method:calculated per CARB title 2]	
Percent volatile	67 % weight	
VOC less H2O & exempt solvents	576 g/l [Test Method:calculated SCAQMD rule 443.1]	

SECTION 10: Stability and reactivity

10.1 Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability

Stable.

10.3. Conditions to avoid

Heat.

Sparks and/or flames.

10.4. Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.5 Incompatible materials

Strong oxidising agents.

Strong acids.

10.6 Hazardous decomposition products

<u>Substance</u> <u>Condition</u>

None known.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation

May be harmful if inhaled. Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

Skin contact

Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain. May cause additional health effects (see below).

Eye contact

Moderate eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

Central nervous system (CNS) depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Prolonged or repeated exposure may cause target organ effects:

Ocular effects: Signs/symptoms may include blurred or significantly impaired vision. Auditory effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears. Olfactory effects: Signs/symptoms may include decreased ability to detect odours and complete loss of smell. Neurological effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and changes in blood pressure and heart rate.

Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000
			mg/kg

Overall product	Inhalation-Vapour(4 hr)		No data available; calculated ATE >20 - =50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Toluene	Dermal	Rat	LD50 12,000 mg/kg
Toluene	Inhalation-Vapour (4 hours)	Rat	LC50 30 mg/l
Toluene	Ingestion	Rat	LD50 5,550 mg/kg
Solvent Naphtha (Petroleum), Light Aliphatic	Dermal	Rabbit	LD50 3,000 mg/kg
Solvent Naphtha (Petroleum), Light Aliphatic	Inhalation-Vapour (4 hours)	Rat	LC50 > 5.2 mg/l
Solvent Naphtha (Petroleum), Light Aliphatic	Ingestion	Rat	LD50 > 5,000 mg/kg
Hydrocarbons, C6-20, Polymers, Hydrogenated	Dermal	Rat	LD50 > 2,000 mg/kg
Hydrocarbons, C6-20, Polymers, Hydrogenated	Ingestion	Rat	LD50 > 5,000 mg/kg
Alpha-Methylstyrene-Vinyltoluene Copolymer	Dermal		LD50 estimated to be > 5,000 mg/kg
Alpha-Methylstyrene-Vinyltoluene Copolymer	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Hydrogenated Styrene-Butadiene Polymer	Dermal		LD50 estimated to be > 5,000 mg/kg
Hydrogenated Styrene-Butadiene Polymer	Ingestion		LD50 estimated to be > 5,000 mg/kg
Heptane	Dermal	Rabbit	LD50 3,000 mg/kg
Heptane	Inhalation-Vapour (4 hours)	Rat	LC50 103 mg/l
Heptane	Ingestion	Rat	LD50 > 15,000 mg/kg
Bis(Hydrogenated Tallow Alkyl)Dimethyl Ammonium Salts with Bentonite	Dermal		LD50 estimated to be > 5,000 mg/kg
Bis(Hydrogenated Tallow Alkyl)Dimethyl Ammonium Salts with Bentonite	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 12.6 mg/l
Bis(Hydrogenated Tallow Alkyl)Dimethyl Ammonium Salts with Bentonite	Ingestion	Rat	LD50 > 5,000 mg/kg
Carbon black	Dermal	Rabbit	LD50 > 3,000 mg/kg
Carbon black	Ingestion	Rat	LD50 > 8,000 mg/kg
Methanol	Dermal		LD50 estimated to be 1,000 - 2,000 mg/kg
Methanol	Inhalation-Vapour		LC50 estimated to be 10 - 20 mg/l
Methanol	Ingestion		LD50 estimated to be 50 - 300 mg/kg
Quartz	Dermal		LD50 estimated to be > 5,000 mg/kg
Quartz	Ingestion		LD50 estimated to be > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation				
Name	Species	Value		
	_			
Toluene	Rabbit	Irritant		
Solvent Naphtha (Petroleum), Light Aliphatic	Rabbit	Irritant		
Heptane	Human	Mild irritant		
Bis(Hydrogenated Tallow Alkyl)Dimethyl	Rat	No significant irritation		
Ammonium Salts with Bentonite				
Carbon black	Rabbit	No significant irritation		
Methanol	Rabbit	Mild irritant		

Quartz Professional judgement No significant irritation	
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Serious Eye Damage/Irritation

Name	Species	Value
Toluene	Rabbit	Moderate irritant
Solvent Naphtha (Petroleum), Light Aliphatic	Rabbit	No significant irritation
Heptane	Professional judgement	Moderate irritant
Bis(Hydrogenated Tallow Alkyl)Dimethyl	Rabbit	No significant irritation
Ammonium Salts with Bentonite		
Carbon black	Rabbit	No significant irritation
Methanol	Rabbit	Moderate irritant

Skin Sensitisation

Name	Species	Value
Toluene	Guinea pig	Not classified
Methanol	Guinea pig	Not classified

Respiratory Sensitisation

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Toluene	In Vitro	Not mutagenic
Toluene	In vivo	Not mutagenic
Solvent Naphtha (Petroleum), Light Aliphatic	In Vitro	Not mutagenic
Heptane	In Vitro	Not mutagenic
Carbon black	In Vitro	Not mutagenic
Carbon black	In vivo	Some positive data exist, but the data are not sufficient for classification
Methanol	In Vitro	Some positive data exist, but the data are not sufficient for classification
Methanol	In vivo	Some positive data exist, but the data are not sufficient for classification
Quartz	In Vitro	Some positive data exist, but the data are not sufficient for classification
Quartz	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Toluene	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Toluene	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
Toluene	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification
Solvent Naphtha (Petroleum), Light Aliphatic	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Carbon black	Dermal	Mouse	Not carcinogenic
Carbon black	Ingestion	Mouse	Not carcinogenic
Carbon black	Inhalation	Rat	Carcinogenic.
Methanol	Inhalation	Multiple animal species	Not carcinogenic
Quartz	Inhalation	Human and animal	Carcinogenic.

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Toluene	Inhalation	Not classified for	Human	NOAEL Not	occupational
		female reproduction		available	exposure
Toluene	Inhalation	Not classified for	Rat	NOAEL 2.3	1 generation
		male reproduction		mg/l	
Toluene	Ingestion	Toxic to development	Rat	LOAEL 520	during gestation
		_		mg/kg/day	
Toluene	Inhalation	Toxic to development	Human	NOAEL Not	poisoning and/or
		_		available	abuse
Methanol	Ingestion	Not classified for	Rat	NOAEL	21 days
		male reproduction		1,600	
				mg/kg/day	
Methanol	Ingestion	Toxic to development	Mouse	LOAEL	during
				4,000	organogenesis
				mg/kg/day	
Methanol	Inhalation	Toxic to development	Mouse	NOAEL 1.3	during
ĺ				mg/l	organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Toluene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Toluene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Toluene	Inhalation	immune system	Not classified	Mouse	NOAEL 0.004 mg/l	3 hours
Toluene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
Solvent Naphtha (Petroleum), Light Aliphatic	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Solvent Naphtha (Petroleum), Light Aliphatic	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Solvent Naphtha (Petroleum), Light Aliphatic	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
Heptane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Heptane	Inhalation	respiratory irritation	Some positive data exist, but the	Human	NOAEL Not available	

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Heptane	Ingestion	central nervous system depression	data are not sufficient for classification May cause drowsiness or dizziness	Human	NOAEL Not available	
Methanol	Inhalation	blindness	Causes damage to organs	Human	NOAEL Not available	occupational exposure
Methanol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	not available
Methanol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	6 hours
Methanol	Ingestion	blindness	Causes damage to organs	Human	NOAEL Not available	poisoning and/or abuse
Methanol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Toluene	Inhalation	auditory system eyes olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Toluene	Inhalation	nervous system	May cause damage to organs though prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Toluene	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 2.3 mg/l	15 months
Toluene	Inhalation	heart liver kidney and/or bladder	Not classified	Rat	NOAEL 11.3 mg/l	15 weeks
Toluene	Inhalation	endocrine system	Not classified	Rat	NOAEL 1.1 mg/l	4 weeks
Toluene	Inhalation	immune system	Not classified	Mouse	NOAEL Not available	20 days
Toluene	Inhalation	bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 1.1 mg/l	8 weeks
Toluene	Inhalation	hematopoietic system vascular system	Not classified	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	gastrointestinal tract	Not classified	Multiple animal species	NOAEL 11.3 mg/l	15 weeks
Toluene	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 625 mg/kg/day	13 weeks
Toluene	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks

Toluene	Ingestion	liver kidney and/or bladder	Not classified	Multiple animal species	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	hematopoietic system	Not classified	Mouse	NOAEL 600 mg/kg/day	14 days
Toluene	Ingestion	endocrine system	Not classified	Mouse	NOAEL 105 mg/kg/day	28 days
Toluene	Ingestion	immune system	Not classified	Mouse	NOAEL 105 mg/kg/day	4 weeks
Heptane	Inhalation	liver nervous system kidney and/or bladder	Not classified	Rat	NOAEL 12 mg/l	26 weeks
Carbon black	Inhalation	pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure
Methanol	Inhalation	liver	Not classified	Rat	NOAEL 6.55 mg/l	4 weeks
Methanol	Inhalation	respiratory system	Not classified	Rat	NOAEL 13.1 mg/l	6 weeks
Methanol	Ingestion	liver nervous system	Not classified	Rat	NOAEL 2,500 mg/kg/day	90 days
Quartz	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

Name	Value
Toluene	Aspiration hazard
Solvent Naphtha (Petroleum), Light Aliphatic	Aspiration hazard
Heptane	Aspiration hazard

Exposure Levels

Refer Section 8.1 Control Parameters of this Safety Data Sheet.

Interactive Effects

Not determined.

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

Acute aquatic hazard:

GHS Acute 2: Toxic to aquatic life.

Chronic aquatic hazard:

GHS Chronic 2: Toxic to aquatic life with long lasting effects.

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
Toluene	108-88-3	Coho Salmon	Experimental	96 hours	LC50	5.5 mg/l
Toluene	108-88-3	Grass Shrimp	Experimental	96 hours	LC50	9.5 mg/l

Toluene	108-88-3	Green Algae	Experimental	72 hours	EC50	12.5 mg/l
Toluene	108-88-3	Leopard frog	Experimental	9 days	LC50	0.39 mg/l
Toluene	108-88-3	Pink Salmon	Experimental	96 hours	LC50	6.41 mg/l
Toluene	108-88-3	Water flea	Experimental	48 hours	EC50	3.78 mg/l
Toluene	108-88-3	Coho Salmon	Experimental	40 days	NOEC	1.39 mg/l
Toluene	108-88-3	Diatom	Experimental	72 hours	NOEC	10 mg/l
Toluene	108-88-3	Water flea	Experimental	7 days	NOEC	0.74 mg/l
Toluene	108-88-3	Activated	Experimental	12 hours	IC50	292 mg/l
		sludge	-			
Toluene	108-88-3	Bacteria	Experimental	16 hours	NOEC	29 mg/l
Toluene	108-88-3	Bacteria	Experimental	24 hours	EC50	84 mg/l
Toluene	108-88-3	Redworm	Experimental	28 days	LC50	>150 mg per kg of bodyweight
Toluene	108-88-3	Soil microbes	Experimental	28 days	NOEC	<26 mg/kg (Dry Weight)
Solvent Naphtha (Petroleum),	64742-89-8	Fathead minnow	Estimated	96 hours	LL50	4.1 mg/l
Light Aliphatic Solvent Naphtha (Petroleum), Light Aliphatic	64742-89-8	Water flea	Estimated	48 hours	EL50	4.5 mg/l
Solvent Naphtha (Petroleum), Light Aliphatic	64742-89-8	Green algae	Experimental	72 hours	EL50	11 mg/l
Solvent Naphtha (Petroleum), Light Aliphatic	64742-89-8	Water flea	Estimated	21 days	NOEL	2.6 mg/l
Solvent Naphtha (Petroleum), Light Aliphatic	64742-89-8	Green algae	Experimental	72 hours	NOEL	0.1 mg/l
Alpha- Methylstyrene- Vinyltoluene Copolymer	9017-27-0		Data not available or insufficient for classification			N/A
Hydrocarbons, C6-20, Polymers, Hydrogenated	Trade Secret		Data not available or insufficient for classification			N/A
Hydrogenated Styrene- Butadiene Polymer	Trade Secret		Data not available or insufficient for classification			N/A
Bis(Hydrogena ted Tallow Alkyl)Dimethy I Ammonium Salts with Bentonite	Trade Secret	Activated sludge	Estimated	3 hours	EC50	>300 mg/l
Dentonic						

ted Tallow		1				
Alkyl)Dimethy						
1 Ammonium						
Salts with						
Bentonite						
Bis(Hydrogena	Trade Secret	Water flea	Estimated	48 hours	EC50	>100 mg/l
ted Tallow						
Alkyl)Dimethy						
l Ammonium						
Salts with						
Bentonite						
Bis(Hydrogena	Trade Secret	Zebra Fish	Estimated	96 hours	LC50	>100 mg/l
ted Tallow						
Alkyl)Dimethy						
l Ammonium						
Salts with						
Bentonite	142.92.5	Water flea	E-maninaantal	40 h a	EC50	1.5 ~/1
Heptane	142-82-5	Water flea Water flea	Experimental	48 hours	EC50	1.5 mg/l
Heptane	142-82-5	+	Estimated	21 days	NOEC	0.17 mg/l
Octane	111-65-9	Medaka	Experimental	96 hours	LC50	0.42 mg/l
Octane	111-65-9	Water flea	Experimental	48 hours	EC50	0.18 mg/l
Octane	111-65-9	Green Algae	Experimental	72 hours	NOEC	1.1 mg/l
Octane	111-65-9	Water flea	Experimental	21 days	NOEC	0.045 mg/l
Carbon black	1333-86-4	Activated	Experimental	3 hours	EC50	>=100 mg/l
C11-11-	1222 07 4	sludge	Data wat		1	NT/A
Carbon black	1333-86-4		Data not available or			N/A
			insufficient for			
			classification			
Methanol	67-56-1	Activated	Experimental	3 hours	IC50	>1,000 mg/l
Wichianoi	07-30-1	sludge	Laperinientai	3 Hours	1030	7,000 mg/1
Methanol	67-56-1	Algae or other	Experimental	96 hours	EC50	16.9 mg/l
		aquatic plants				1 000 000
Methanol	67-56-1	Bluegill	Experimental	96 hours	LC50	15,400 mg/l
Methanol	67-56-1	Green Algae	Experimental	96 hours	EC50	22,000 mg/l
Methanol	67-56-1	Water flea	Experimental	24 hours	EC50	20,803 mg/l
Methanol	67-56-1	Algae or other	Experimental	96 hours	NOEC	9.96 mg/l
		aquatic plants	_			
Methanol	67-56-1	Water flea	Experimental	21 days	NOEC	122 mg/l
Quartz	14808-60-7	Green Algae	Estimated	72 hours	EC50	440 mg/l
Quartz	14808-60-7	Water flea	Estimated	48 hours	EC50	7,600 mg/l
Quartz	14808-60-7	Zebra Fish	Estimated	96 hours	LC50	5,000 mg/l
Quartz	14808-60-7	Green Algae	Estimated	72 hours	NOEC	60 mg/l

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Toluene	108-88-3	Experimental		Photolytic half-	5.2 days (t 1/2)	
		Photolysis		life (in air)		
Toluene	108-88-3	Experimental	20 days	BOD	80 %	APHA Std Meth
		Biodegradation	-		BOD/ThOD	Water/Wastewater
Solvent	64742-89-8	Estimated	28 days	BOD	77.05 %	OECD 301F -
Naphtha		Biodegradation			BOD/ThOD	Manometric
(Petroleum),						respirometry

Light Aliphatic						
Alpha- Methylstyrene- Vinyltoluene Copolymer	9017-27-0	Estimated Biodegradation	28 days	BOD	1 % weight	OECD 301C - MITI test (I)
Hydrocarbons, C6-20, Polymers, Hydrogenated	Trade Secret	Data not available- insufficient	N/A	N/A	N/A	N/A
Hydrogenated Styrene- Butadiene Polymer	Trade Secret	Data not available- insufficient	N/A	N/A	N/A	N/A
Bis(Hydrogena ted Tallow Alkyl)Dimethy I Ammonium Salts with Bentonite	Trade Secret	Estimated Biodegradation	28 days	BOD	3 % BOD/ThOD	OECD 301D - Closed bottle test
Heptane	142-82-5	Experimental Photolysis		Photolytic half- life (in air)	4.24 days (t 1/2)	Non-standard method
Heptane	142-82-5	Experimental Biodegradation	28 days	BOD	101 % BOD/ThOD	OECD 301C - MITI test (I)
Octane	111-65-9	Experimental Photolysis		Photolytic half- life (in air)	3.35 days (t 1/2)	Non-standard method
Octane	111-65-9	Experimental Biodegradation	15 days	BOD	67 % weight	Non-standard method
Carbon black	1333-86-4	Data not available-insufficient	N/A	N/A	N/A	N/A
Methanol	67-56-1	Experimental Biodegradation	14 days	BOD	92 % BOD/ThOD	OECD 301C - MITI test (I)
Quartz	14808-60-7	Data not available- insufficient	N/A	N/A	N/A	N/A

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Toluene	108-88-3	Experimental	72 hours	Bioaccumulatio	90	
		BCF - Other		n factor		
Toluene	108-88-3	Experimental		Log Kow	2.73	
		Bioconcentrati				
		on				
Solvent	64742-89-8	Data not	N/A	N/A	N/A	N/A
Naphtha		available or				
(Petroleum),		insufficient for				
Light Aliphatic		classification				
Alpha-	9017-27-0	Estimated		Bioaccumulatio	79	Estimated:
Methylstyrene-		Bioconcentrati		n factor		Bioconcentration factor
Vinyltoluene		on				
Copolymer						
Hydrocarbons,	Trade Secret	Data not	N/A	N/A	N/A	N/A
C6-20,		available or				
Polymers,		insufficient for				

Hydrogenated		classification				
Hydrogenated Styrene- Butadiene Polymer	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Bis(Hydrogena ted Tallow Alkyl)Dimethy I Ammonium Salts with Bentonite	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Heptane	142-82-5	Estimated Bioconcentrati on		Bioaccumulatio n factor	105	Estimated: Bioconcentration factor
Octane	111-65-9	Estimated Bioconcentrati on		Bioaccumulatio n factor	210	Estimated: Bioconcentration factor
Carbon black	1333-86-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Methanol	67-56-1	Experimental Bioconcentrati on		Log Kow	-0.77	Non-standard method
Quartz	14808-60-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

12.4. Mobility in soil

Please contact manufacturer for more details

12.5 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate in a permitted waste incineration facility.

SECTION 14: Transport Information

Australian Dangerous Goods Code (ADG) - Road/Rail Transport

UN No.: UN1139

Proper shipping name: COATING SOLUTION

Class/Division: 3

Sub Risk: Not applicable.

Packing Group: II

Special Instructions: Limited quantity may apply

Hazchem Code: •3YE

IERG: 14

International Air Transport Association (IATA) - Air Transport

UN No.: UN1139

Proper shipping name: COATING SOLUTION

Class/Division: 3

Sub Risk: Not applicable. **Packing Group:** II

International Maritime Dangerous Goods Code (IMDG)- Marine Transport

UN No.: UN1139

Proper shipping name: COATING SOLUTION

Class/Division: 3

Sub Risk: Not applicable. Packing Group: II

Marine Pollutant: Not applicable.

Special Instructions: Limited quantity may apply

SECTION 15: Regulatory information

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

Australian Inventory Status:

All components of this product are listed on or exempt from the Australian Inventory of Industrial Chemicals (AIIC). Conditions may apply prior to introduction for direct importers of this product, Please contact 3M Australia on 136 136 for further details.

Poison Schedule: This product is intended for Industrial or Professional Use only and therefore is not packaged and labelled in accordance with the requirements of the Standard for the Uniform Scheduling of Medicines and Poisons.

SECTION 16: Other information

Revision information:

Complete document review.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Safety Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

Greenguard ® is a United States based program. The 'Low VOC' reference related to United States Federal and State regulations exemptions for some solvents.

3M Australia SDSs are available at www.3m.com.au