

Safety Data Sheet

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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[™] Weatherstrip Adhesive - Black, P.N. 08011

Product Identification Numbers

60-4550-5761-6

1.2. Recommended use and restrictions on use

Recommended use

Automotive, Trim Adhesive

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.

Reproductive Toxicity: Category 1.

Specific Target Organ Toxicity (repeated exposure): Category 1. Specific Target Organ Toxicity (single exposure): Category 3

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.

H360 May damage fertility or the unborn child. H336 May cause drowsiness or dizziness.

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

Precautionary statements

General:

P101 If medical advice is needed, have product container or label at hand.

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.
P271 Use only outdoors or in a well-ventilated area.
P280K Wear protective gloves and respiratory protection.

Response:

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

with water or shower.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

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

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P308 + P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTRE or doctor/physician if you feel unwell.
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

Aspiration classification does not apply due to the viscosity of the product.

2.4. Other hazards which do not result in classification

Toxic to aquatic life with long lasting effects.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Weight
Naphtha (petroleum), solvent-refined light	64741-84-0	50 - 65
n-Hexane	110-54-3	15 - 40
Heptane	142-82-5	5 - 20
Methylcyclopentane	96-37-7	5 - 20
2-Methylpentane	107-83-5	5 - 15
3-Methylpentane	96-14-0	5 - 15
Cyclohexane	110-82-7	< 10
Naphtha, light steam-cracked aromatic,	68478-07-9	1 - 10
piperylene concentrate, polymerised		
Polyisoprene	9003-31-0	1 - 10
Styrene-butadiene polymer	9003-55-8	1 - 10
Talc	14807-96-6	1 - 10
Toluene	108-88-3	< 10
2,3-Dimethylbutane	79-29-8	1 - 5
Calcium zinc resinate	68334-35-0	1 - 5
Phenolic Resin	Trade Secret	1 - 5
Ethanol	64-17-5	< 1
Methyl isobutyl ketone	108-10-1	< 0.6
Benzene, ethenyl-, homopolymer	9003-53-6	< 0.5
(oligomeric)		
Carbon black	1333-86-4	<= 0.5
Zinc Oxide	1314-13-2	< 0.5
Benzene	71-43-2	< 0.1

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.

Eve contact

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>
Aldehydes.	During combustion.
Hydrocarbons.	During combustion.
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.
Toxic vapour, gas, particulate.	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

Do not use in a confined area with minimal air exchange. 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. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) 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
2-Methylpentane	107-83-5	ACGIH	TWA:500 ppm;STEL:1000	
			ppm	
Hexane (isomers other than n-	107-83-5	Australia OELs	TWA(8 hours): 1760 mg/m3	
hexane)			(500 ppm); STEL(15	
			minutes): 3500 mg/m3 (1000	
			ppm)	
Methyl isobutyl ketone	108-10-1	ACGIH	TWA:20 ppm;STEL:75 ppm	A3: Confirmed animal
				carcinogen.
Methyl isobutyl ketone	108-10-1	Australia OELs	TWA(8 hours): 205 mg/m3	
			(50 ppm); STEL(15	
			minutes): 307 mg/m3 (75 ppm)	
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)	
n-Hexane	110-54-3	ACGIH	TWA:50 ppm	Danger of cutaneous absorption
n-Hexane	110-54-3	Australia OELs	TWA(8 hours): 72 mg/m3 (20 ppm)	
Cyclohexane	110-82-7	ACGIH	TWA:100 ppm	
Cyclohexane	110-82-7	Australia OELs	TWA(8 hours):350	
Cyclonexane	110-82-7	Australia OELS	mg/m3(100 ppm);STEL(15 minutes):1050 mg/m3(300 ppm)	
Zinc Oxide	1314-13-2	ACGIH	TWA(respirable fraction):2 mg/m3;STEL(respirable fraction):10 mg/m3	
Zinc Oxide	1314-13-2	Australia OELs	TWA(Inspirable dust)(8 hours):10 mg/m3;TWA(as fume)(8 hours):5 mg/m3;STEL(as fume)(15 minutes):10 mg/m3	
Carbon black	1333-86-4	ACGIH	TWA(inhalable fraction):3 mg/m3	A3: Confirmed animal 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)	
Talc	14807-96-6	ACGIH	TWA(respirable fraction):2 mg/m3	A4: Not class. as human carcin
Talc	14807-96-6	Australia OELs	TWA(8 hours):2.5 mg/m3	
Ethanol	64-17-5	ACGIH	STEL:1000 ppm	A3: Confirmed animal carcinogen.
Ethanol	64-17-5	Australia OELs	TWA(8 hours):1880 mg/m3(1000 ppm)	
Benzene	71-43-2	ACGIH		A1: Confirmed human carcin., SKIN
Benzene	71-43-2	Australia OELs	TWA(8 hours):3.2 mg/m3(1 ppm)	
2,3-Dimethylbutane	79-29-8	ACGIH	TWA:500 ppm;STEL:1000 ppm	
Hexane (isomers other than n-hexane)	79-29-8	Australia OELs	TWA(8 hours): 1760 mg/m3 (500 ppm); STEL(15 minutes): 3500 mg/m3 (1000 ppm)	
3-Methylpentane	96-14-0	ACGIH	TWA:500 ppm;STEL:1000 ppm	
Hexane (isomers other than n-hexane)	96-14-0	Australia OELs	TWA(8 hours): 1760 mg/m3 (500 ppm); STEL(15 minutes): 3500 mg/m3 (1000 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:

Safety glasses with side shields.

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

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 Half facepiece or full facepiece supplied-air respirator.

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.
Specific Physical Form:	Medium paste
Colour	Black
Odour	Mild Odour
Odour threshold	No data available.
рН	No data available.
Melting point/Freezing point	No data available.

Boiling point/Initial boiling point/Boiling range	64.4 - 87.2 °C
Flash point	-21.1 °C [Test Method: Tagliabue closed cup]
Evaporation rate	2.5 [Ref Std:ETHER=1]
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	1 % volume
Flammable Limits(UEL)	7 % volume
Vapour pressure	15,998.6 Pa [@ 20 °C]
Vapor Density and/or Relative Vapor Density	3 [Ref Std:AIR=1]
Density	0.82 g/ml
Relative density	0.82 [Ref Std:WATER=1]
Water solubility	Slight (less than 10%)
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	7,500 - 18,000 mPa-s
Volatile organic compounds (VOC)	70.3 % weight [Test Method:calculated per CARB title 2]
Volatile organic compounds (VOC)	577 g/l [Test Method:calculated SCAQMD rule 443.1]
Percent volatile	70.3 % weight
VOC less H2O & exempt solvents	577 g/l [Test Method:calculated SCAQMD rule 443.1]
Molecular weight	Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is considered to be non reactive under normal use conditions

10.2 Chemical stability

Stable.

10.3. Conditions to avoid

Heat.

10.4. Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.5 Incompatible materials

Strong acids.

Strong oxidising agents.

10.6 Hazardous decomposition products

Substance
None known.

Condition

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

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.

Eve 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:

Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests.

Prolonged or repeated exposure by ingestion may cause:

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. Peripheral neuropathy: Signs/symptoms may include tingling or numbness of the extremities, incoordination, weakness of the hands and feet, tremors and muscle atrophy. 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.

Additional information:

This product contains ethanol. Alcoholic beverages and ethanol in alcoholic beverages have been classified by the International Agency for Research on Cancer as carcinogenic to humans. There are also data associating human consumption of alcoholic beverages with developmental toxicity and liver toxicity. Exposure to ethanol during the foreseeable use of this product is not expected to cause cancer, developmental toxicity, or liver toxicity.

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 >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Naphtha (petroleum), solvent-refined light	Dermal	Rat	LD50 > 2,800 mg/kg
Naphtha (petroleum), solvent-refined light	Inhalation-Vapour (4 hours)	Rat	LC50 > 25.2 mg/l
Naphtha (petroleum), solvent-refined light	Ingestion	Rat	LD50 > 5,840 mg/kg
n-Hexane	Dermal	Rabbit	LD50 > 2,000 mg/kg
n-Hexane	Inhalation-Vapour (4 hours)	Rat	LC50 170 mg/l
n-Hexane	Ingestion	Rat	LD50 > 28,700 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
Methylcyclopentane	Dermal		LD50 estimated to be > 5,000 mg/kg
Methylcyclopentane	Ingestion	Rat	LD50 > 5,000 mg/kg
2-Methylpentane	Dermal		LD50 estimated to be > 5,000 mg/kg
2-Methylpentane	Inhalation-Vapour		LC50 estimated to be > 50 mg/l
2-Methylpentane	Ingestion		LD50 estimated to be > 5,000 mg/kg
3-Methylpentane	Dermal		LD50 estimated to be > 5,000 mg/kg
3-Methylpentane	Inhalation-Vapour		LC50 estimated to be > 50 mg/l
3-Methylpentane	Ingestion		LD50 estimated to be > 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
Talc	Dermal		LD50 estimated to be > 5,000 mg/kg
Talc	Ingestion		LD50 estimated to be > 5,000 mg/kg
Cyclohexane	Dermal	Rat	LD50 > 2,000 mg/kg
Cyclohexane	Inhalation-Vapour (4 hours)	Rat	LC50 > 32.9 mg/l
Cyclohexane	Ingestion	Rat	LD50 6,200 mg/kg
Polyisoprene	Dermal		LD50 estimated to be > 5,000 mg/kg
Polyisoprene	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Naphtha, light steam-cracked aromatic, piperylene concentrate, polymerised	Dermal	Rabbit	LD50 > 3,160 mg/kg
Styrene-butadiene polymer	Dermal	Rabbit	LD50 > 2,000 mg/kg
Naphtha, light steam-cracked aromatic, piperylene concentrate, polymerised	Ingestion	Rat	LD50 > 5,000 mg/kg
Styrene-butadiene polymer	Ingestion	Rat	LD50 > 5,000 mg/kg
Phenolic Resin	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Phenolic Resin	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
2,3-Dimethylbutane	Dermal		LD50 estimated to be > 5,000 mg/kg
2,3-Dimethylbutane	Inhalation-Vapour		LC50 estimated to be > 50 mg/l
2,3-Dimethylbutane	Ingestion		LD50 estimated to be > 5,000 mg/kg
Ethanol	Dermal	Rabbit	LD50 > 15,800 mg/kg
Ethanol	Inhalation-Vapour (4 hours)	Rat	LC50 124.7 mg/l
Ethanol	Ingestion	Rat	LD50 17,800 mg/kg

Methyl isobutyl ketone	Dermal	Rabbit	LD50 > 16,000 mg/kg
Methyl isobutyl ketone	Inhalation-Vapour (4	Rat	LC50 11 mg/l
	hours)		
Methyl isobutyl ketone	Ingestion	Rat	LD50 3,038 mg/kg
Carbon black	Dermal	Rabbit	LD50 > 3,000 mg/kg
Carbon black	Ingestion	Rat	LD50 > 8,000 mg/kg
Zinc Oxide	Dermal		LD50 estimated to be > 5,000 mg/kg
Zinc Oxide	Inhalation-Dust/Mist	Rat	LC50 > 5.7 mg/l
	(4 hours)		
Zinc Oxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Benzene	Dermal	Multiple animal	LD50 > 8,260 mg/kg
		species	
Benzene	Inhalation-Vapour (4	Rat	LC50 43.8 mg/l
	hours)		
Benzene	Ingestion	Rat	LD50 5,970 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Naphtha (petroleum), solvent-refined light	Rabbit	Irritant
n-Hexane	Human and animal	Mild irritant
Heptane	Human	Mild irritant
Methylcyclopentane	similar compounds	Minimal irritation
2-Methylpentane	Professional judgement	Mild irritant
3-Methylpentane	Professional judgement	Mild irritant
Toluene	Rabbit	Irritant
Talc	Rabbit	No significant irritation
Cyclohexane	Rabbit	Mild irritant
Naphtha, light steam-cracked aromatic, piperylene concentrate, polymerised	similar compounds	No significant irritation
Polyisoprene	Professional judgement	No significant irritation
Styrene-butadiene polymer	Professional judgement	No significant irritation
2,3-Dimethylbutane	Professional judgement	Mild irritant
Ethanol	Rabbit	No significant irritation
Methyl isobutyl ketone	Rabbit	Mild irritant
Carbon black	Rabbit	No significant irritation
Zinc Oxide	Human and animal	No significant irritation
Benzene	Rabbit	Irritant

Serious Eve Damage/Irritation

Name	Species	Value
Naphtha (petroleum), solvent-refined light	Rabbit	Mild irritant
n-Hexane	Rabbit	Mild irritant
Heptane	Professional judgement	Moderate irritant
Methylcyclopentane	similar compounds	Mild irritant
2-Methylpentane	Professional judgement	Moderate irritant
3-Methylpentane	Professional judgement	Moderate irritant
Toluene	Rabbit	Moderate irritant
Talc	Rabbit	No significant irritation
Cyclohexane	Rabbit	Mild irritant
Naphtha, light steam-cracked aromatic, piperylene concentrate, polymerised	similar compounds	Mild irritant
Polyisoprene	Professional judgement	No significant irritation
2,3-Dimethylbutane	Professional judgement	Moderate irritant
Ethanol	Rabbit	Severe irritant
Methyl isobutyl ketone	Rabbit	Mild irritant

Carbon black	Rabbit	No significant irritation
Zinc Oxide	Rabbit	Mild irritant
Benzene	Rabbit	Severe irritant

Skin Sensitisation

Name	Species	Value
Naphtha (petroleum), solvent-refined light	Guinea pig	Not classified
n-Hexane	Human	Not classified
Toluene	Guinea pig	Not classified
Polyisoprene	Human	Not classified
Ethanol	Human	Not classified
Methyl isobutyl ketone	Guinea pig	Not classified
Zinc Oxide	Guinea pig	Not classified
Benzene	Multiple animal species	Not classified

Respiratory Sensitisation

Name	Species	Value
Talc	Human	Not classified

Germ Cell Mutagenicity

	Value
In Vitro	Not mutagenic
	Not mutagenic
	Not mutagenic Not mutagenic
	Not mutagenic Not mutagenic
	-
	Not mutagenic
	Not mutagenic
In Vitro	Not mutagenic
In vivo	Some positive data exist, but the data are not
	sufficient for classification
In Vitro	Some positive data exist, but the data are not
	sufficient for classification
In vivo	Some positive data exist, but the data are not
	sufficient for classification
In Vitro	Not mutagenic
In Vitro	Not mutagenic
In vivo	Some positive data exist, but the data are not
	sufficient for classification
In Vitro	Some positive data exist, but the data are not
1 ,	sufficient for classification
In vivo	Some positive data exist, but the data are not
1	sufficient for classification
In Vitro	Some positive data exist, but the data are not
1	sufficient for classification
In vivo	Mutagenic Mutagenic
	In Vitro In vivo In Vitro In Vitro In vivo

Carcinogenicity

Name	Route	Species	Value
n-Hexane	Dermal	Mouse	Not carcinogenic
n-Hexane	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification
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
Talc	Inhalation	Rat	Some positive data exist, but the data
			are not sufficient for classification
Ethanol	Ingestion	Multiple animal	Some positive data exist, but the data
		species	are not sufficient for classification
Methyl isobutyl ketone	Inhalation	Multiple animal	Carcinogenic.
		species	
Carbon black	Dermal	Mouse	Not carcinogenic
Carbon black	Ingestion	Mouse	Not carcinogenic
Carbon black	Inhalation	Rat	Carcinogenic.
Benzene	Dermal	Mouse	Carcinogenic.
Benzene	Ingestion	Multiple animal	Carcinogenic.
		species	
Benzene	Inhalation	Human	Carcinogenic.

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Naphtha (petroleum),	Ingestion	Toxic to male	similar compounds	NOAEL not	not available
solvent-refined light		reproduction		available	
Naphtha (petroleum),	Inhalation	Toxic to male	similar compounds	NOAEL not	not available
solvent-refined light		reproduction		available	
n-Hexane	Ingestion	Not classified for	Mouse	NOAEL	during
		development		2,200	organogenesis
				mg/kg/day	
n-Hexane	Inhalation	Not classified for	Rat	NOAEL 0.7	during gestation
		development		mg/l	
n-Hexane	Ingestion	Toxic to male	Rat	NOAEL	90 days
		reproduction		1,140	
				mg/kg/day	
n-Hexane	Inhalation	Toxic to male	Rat	LOAEL 3.52	28 days
		reproduction		mg/l	
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
Talc	Ingestion	Not classified for	Rat	NOAEL	during
		development		1,600 mg/kg	organogenesis
Cyclohexane	Inhalation	Not classified for	Rat	NOAEL 24	2 generation
		female reproduction		mg/l	
Cyclohexane	Inhalation	Not classified for	Rat	NOAEL 24	2 generation
		male reproduction		mg/l	
Cyclohexane	Inhalation	Not classified for	Rat	NOAEL 6.9	2 generation
		development		mg/l	
Ethanol	Inhalation	Not classified for	Rat	NOAEL 38	during gestation
		development		mg/l	
Ethanol	Ingestion	Not classified for	Rat	NOAEL	premating & during
		development		5,200	gestation
				mg/kg/day	
Methyl isobutyl	Inhalation	Not classified for	Multiple animal	NOAEL 8.2	2 generation
ketone		female reproduction	species	mg/l	
Methyl isobutyl	Ingestion	Not classified for	Rat	NOAEL	13 weeks

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ketone		male reproduction		1,000 mg/kg/day	
Methyl isobutyl ketone	Inhalation	Not classified for male reproduction	Multiple animal species	NOAEL 8.2 mg/l	2 generation
Methyl isobutyl ketone	Inhalation	Not classified for development	Mouse	NOAEL 12.3 mg/l	during organogenesis
Benzene, ethenyl-, homopolymer (oligomeric)	Ingestion	Toxic to female reproduction	Rat	NOAEL 5 mg/kg/day	premating into lactation
Zinc Oxide	Ingestion	Not classified for reproduction and/or development	Multiple animal species	NOAEL 125 mg/kg/day	premating & during gestation
Benzene	Inhalation	Not classified for female reproduction	Rat	NOAEL 0.96 mg/l	premating into lactation
Benzene	Inhalation	Not classified for development	Rat	NOAEL 0.032 mg/l	during organogenesis
Benzene	Ingestion	Toxic to male reproduction	Rat	LOAEL 50 mg/kg/day	90 days

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Naphtha (petroleum), solvent- refined light	Inhalation	central nervous system depression	May cause drowsiness or dizziness	similar compounds	NOAEL not available	not available
Naphtha (petroleum), solvent- refined light	Ingestion	central nervous system depression	May cause drowsiness or dizziness	similar compounds	NOAEL not available	not available
n-Hexane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	not available
n-Hexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Rabbit	NOAEL Not available	8 hours
n-Hexane	Inhalation	respiratory system	Not classified	Rat	NOAEL 24.6 mg/l	8 hours
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 data are not sufficient for classification	Human	NOAEL Not available	
Heptane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Methylcyclop entane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	similar compounds	NOAEL Not available	
Methylcyclop entane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
2-	Inhalation	central nervous	May cause	Professional	NOAEL Not	

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Methylpentan		system	drowsiness or	judgement	available	
e		depression	dizziness	Judgement	available	
2- Methylpentan e	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
2- Methylpentan e	Inhalation	cardiac sensitization	Not classified	Dog	NOAEL Not available	
2- Methylpentan e	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
3- Methylpentan e	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
3- Methylpentan e	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
3- Methylpentan e	Inhalation	cardiac sensitization	Not classified	Dog	NOAEL Not available	
3- Methylpentan e	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
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
Cyclohexane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Cyclohexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	
Cyclohexane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
2,3- Dimethylbuta ne	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
2,3- Dimethylbuta ne	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
2,3- Dimethylbuta	Inhalation	cardiac sensitization	Not classified	Dog	NOAEL Not available	

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ne						
2,3- Dimethylbuta ne	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
Ethanol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	LOAEL 9.4 mg/l	not available
Ethanol	Inhalation	central nervous system depression	Not classified	Human and animal	NOAEL not available	
Ethanol	Ingestion	central nervous system depression	Not classified	Multiple animal species	NOAEL not available	
Ethanol	Ingestion	kidney and/or bladder	Not classified	Dog	NOAEL 3,000 mg/kg	
Methyl isobutyl ketone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	LOAEL 0.1 mg/l	2 hours
Methyl isobutyl ketone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Methyl isobutyl ketone	Inhalation	vascular system	Not classified	Dog	NOAEL Not available	not available
Methyl isobutyl ketone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Rat	LOAEL 900 mg/kg	not applicable
Benzene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available.	
Benzene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available.	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Naphtha (petroleum), solvent- refined light	Inhalation	peripheral nervous system	May cause damage to organs though prolonged or repeated exposure	similar compounds	NOAEL not available	not available
n-Hexane	Inhalation	peripheral nervous system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
n-Hexane	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Mouse	LOAEL 1.76 mg/l	13 weeks
n-Hexane	Inhalation	liver	Not classified	Rat	NOAEL Not available	6 months
n-Hexane	Inhalation	kidney and/or	Not classified	Rat	LOAEL 1.76	6 months

		bladder			mg/l	
n-Hexane	Inhalation	hematopoietic system	Not classified	Mouse	NOAEL 35.2 mg/l	13 weeks
n-Hexane	Inhalation	auditory system immune system eyes	Not classified	Human	NOAEL Not available	occupational exposure
n-Hexane	Inhalation	heart skin endocrine system	Not classified	Rat	NOAEL 1.76 mg/l	6 months
n-Hexane	Ingestion	peripheral nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,140 mg/kg/day	90 days
n-Hexane	Ingestion	endocrine system hematopoietic system liver immune system kidney and/or bladder	Not classified	Rat	NOAEL Not available	13 weeks
Heptane	Inhalation	liver nervous system kidney and/or bladder	Not classified	Rat	NOAEL 12 mg/l	26 weeks
2- Methylpentan e	Inhalation	peripheral nervous system	Not classified	Rat	NOAEL 5.3 mg/l	14 weeks
2- Methylpentan e	Ingestion	peripheral nervous system	Not classified	Rat	NOAEL Not available	8 weeks
2- Methylpentan e	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 2,000 mg/kg	28 days
3- Methylpentan e	Inhalation	peripheral nervous system	Not classified	Rat	NOAEL 5.3 mg/l	14 weeks
3- Methylpentan e	Ingestion	peripheral nervous system	Not classified	Rat	NOAEL Not available	8 weeks
3- Methylpentan e	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 2,000 mg/kg	28 days
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
Talc	Inhalation	pneumoconiosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Talc	Inhalation	pulmonary fibrosis respiratory system	Not classified	Rat	NOAEL 18 mg/m3	113 weeks
Cyclohexane	Inhalation	liver	Not classified	Rat	NOAEL 24 mg/l	90 days
Cyclohexane	Inhalation	auditory system	Not classified	Rat	NOAEL 1.7 mg/l	90 days
Cyclohexane	Inhalation	kidney and/or bladder	Not classified	Rabbit	NOAEL 2.7 mg/l	10 weeks
Cyclohexane	Inhalation	hematopoietic system	Not classified	Mouse	NOAEL 24 mg/l	14 weeks
Cyclohexane	Inhalation	peripheral nervous system	Not classified	Rat	NOAEL 8.6 mg/l	30 weeks
2,3- Dimethylbuta ne	Inhalation	peripheral nervous system	Not classified	Rat	NOAEL 5.3 mg/l	14 weeks
2,3- Dimethylbuta ne	Ingestion	peripheral nervous system	Not classified	Rat	NOAEL Not available	8 weeks
2,3- Dimethylbuta ne	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 2,000 mg/kg	28 days
Ethanol	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rabbit	LOAEL 124 mg/l	365 days
Ethanol	Inhalation	hematopoietic system immune system	Not classified	Rat	NOAEL 25 mg/l	14 days
Ethanol	Ingestion	liver	Some positive data exist, but the	Rat	LOAEL 8,000 mg/kg/day	4 months

			data are not sufficient for classification			
Ethanol	Ingestion	kidney and/or bladder	Not classified	Dog	NOAEL 3,000 mg/kg/day	7 days
Methyl isobutyl ketone	Inhalation	liver	Not classified	Rat	NOAEL 0.41 mg/l	13 weeks
Methyl isobutyl ketone	Inhalation	heart	Not classified	Multiple animal species	NOAEL 0.8 mg/l	2 weeks
Methyl isobutyl ketone	Inhalation	kidney and/or bladder	Not classified	Multiple animal species	NOAEL 0.4 mg/l	90 days
Methyl isobutyl ketone	Inhalation	respiratory system	Not classified	Multiple animal species	NOAEL 4.1 mg/l	14 weeks
Methyl isobutyl ketone	Inhalation	endocrine system hematopoietic system	Not classified	Multiple animal species	NOAEL 0.41 mg/l	90 days
Methyl isobutyl ketone	Inhalation	nervous system	Not classified	Multiple animal species	NOAEL 0.41 mg/l	13 weeks
Methyl isobutyl ketone	Ingestion	endocrine system hematopoietic system liver kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
Methyl isobutyl ketone	Ingestion	heart immune system muscles nervous system respiratory system	Not classified	Rat	NOAEL 1,040 mg/kg/day	120 days
Carbon black	Inhalation	pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure
Zinc Oxide	Ingestion	nervous system	Not classified	Rat	NOAEL 600 mg/kg/day	10 days
Zinc Oxide	Ingestion	endocrine system hematopoietic system kidney and/or bladder	Not classified	Other	NOAEL 500 mg/kg/day	6 months
Benzene	Inhalation	hematopoietic system	Causes damage to organs through prolonged or repeated exposure	Human and animal	NOAEL Not available.	
Benzene	Inhalation	heart endocrine system gastrointestinal tract bone, teeth, nails, and/or hair liver immune system muscles nervous system eyes kidney and/or bladder respiratory system	Not classified	Rat	NOAEL 0.96 mg/l	90 days

Benzene	Ingestion	hematopoietic system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 25 mg/kg/day	90 days
Benzene	Ingestion	heart endocrine system gastrointestinal tract bone, teeth, nails, and/or hair liver immune system nervous system kidney and/or bladder respiratory system	Not classified	Rat	NOAEL 600 mg/kg/day	90 days

Aspiration Hazard

Name	Value
Naphtha (petroleum), solvent-refined light	Aspiration hazard
n-Hexane	Aspiration hazard
Heptane	Aspiration hazard
Methylcyclopentane	Aspiration hazard
2-Methylpentane	Aspiration hazard
3-Methylpentane	Aspiration hazard
Toluene	Aspiration hazard
Cyclohexane	Aspiration hazard
2,3-Dimethylbutane	Aspiration hazard
Methyl isobutyl ketone	Some positive data exist, but the data are not sufficient
	for classification

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
Naphtha	64741-84-0	Green algae	Estimated	72 hours	EC50	30 mg/l

	,			1		
(petroleum),						
solvent-refined						
light						
Naphtha	64741-84-0	Rainbow trout	Estimated	96 hours	LL50	11.4 mg/l
(petroleum),						
solvent-refined						
light						
Naphtha	64741-84-0	Water flea	Estimated	48 hours	EL50	3 mg/l
(petroleum),						
solvent-refined						
light						
Naphtha	64741-84-0	Green algae	Estimated	72 hours	NOEL	3 mg/l
(petroleum),						
solvent-refined						
light						
Naphtha	64741-84-0	Water flea	Estimated	21 days	NOEL	1 mg/l
(petroleum),				,		
solvent-refined						
light						
n-Hexane	110-54-3	Fathead minnow	Experimental	96 hours	LC50	2.5 mg/l
n-Hexane	110-54-3	Water flea	Experimental	48 hours	LC50	3.9 mg/l
Heptane	142-82-5	Water flea	Experimental	48 hours	EC50	1.5 mg/l
Heptane	142-82-5	Water flea	Estimated	21 days	NOEC	0.17 mg/l
Methylcyclopentan		N/A	Data not available	N/A	N/A	N/A
	90-37-7	1N/A	or insufficient for	IN/A	IN/A	IN/A
e			classification			
2 Madada anda a	107-83-5	N/A	Data not available	N/A	N/A	N/A
2-Methylpentane	107-83-5	IN/A	or insufficient for	N/A	IN/A	N/A
2.26 (1.1)	06140	37/4	classification	27/4	37/4	D7/4
3-Methylpentane	96-14-0	N/A	Data not available	N/A	N/A	N/A
			or insufficient for			
			classification			
Cyclohexane	110-82-7	Bacteria	Experimental	24 hours	IC50	97 mg/l
Cyclohexane	110-82-7	Fathead minnow	Experimental	96 hours	LC50	4.53 mg/l
Cyclohexane	110-82-7	Water flea	Experimental	48 hours	EC50	0.9 mg/l
Naphtha, light	68478-07-9	N/A	Data not available	N/A	N/A	N/A
steam-cracked			or insufficient for			
aromatic,			classification			
piperylene						
concentrate,						
polymerised						
Polyisoprene	9003-31-0	N/A	Data not available	N/A	N/A	N/A
			or insufficient for			
			classification			
Styrene-butadiene	9003-55-8	N/A	Data not available	N/A	N/A	N/A
polymer			or insufficient for			
1 3			classification			
Talc	14807-96-6	N/A	Data not available	N/A	N/A	N/A
			or insufficient for			
			classification			
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 sludge	Experimental	12 hours	IC50	292 mg/l
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
					1-555	bodyweight
Toluene	108-88-3	Soil microbes	Experimental	28 days	NOEC	<26 mg/kg (Dry Weight)
2,3-	79-29-8	N/A	Data not available	N/A	N/A	N/A
Dimethylbutane	1,7-2,7-0	11/7	or insufficient for	11/11	17/73	11/15
Difficulty foutails	ı		Tot montherent for	<u> </u>		<u> </u>

	Ī		classification			
Calcium zinc	68334-35-0	Bacteria	Estimated	30 minutes	EC10	3 mg/l
resinate						
Calcium zinc	68334-35-0	Fathead minnow	Estimated	96 hours	LC50	1.7 mg/l
resinate						
Calcium zinc	68334-35-0	Green algae	Estimated	72 hours	EC50	39.6 mg/l
resinate						
Calcium zinc	68334-35-0	Water flea	Estimated	48 hours	EC50	1.6 mg/l
resinate						
Calcium zinc	68334-35-0	Green algae	Estimated	72 hours	NOEC	6.25 mg/l
resinate						
Phenolic Resin	Trade Secret	N/A	Data not available	N/A	N/A	n/a
			or insufficient for			
Ed. 1	CA 17.5	E d I :	classification	061	1.050	14 200 //
Ethanol	64-17-5	Fathead minnow	Experimental	96 hours	LC50	14,200 mg/l
Ethanol	64-17-5	Fish	Experimental	96 hours	LC50	11,000 mg/l
Ethanol	64-17-5	Green algae	Experimental	72 hours	EC50	275 mg/l
Ethanol	64-17-5	Water flea	Experimental	48 hours	LC50	5,012 mg/l
Ethanol	64-17-5	Green algae	Experimental	72 hours	ErC10	11.5 mg/l
Ethanol	64-17-5	Water flea	Experimental	10 days	NOEC	9.6 mg/l
Methyl isobutyl	108-10-1	Green algae	Experimental	96 hours	EC50	400 mg/l
ketone	108-10-1	Water flea	F : (1	48 hours	ECCO	200 //
Methyl isobutyl ketone	108-10-1	water flea	Experimental	48 nours	EC50	>200 mg/l
Methyl isobutyl	108-10-1	Zebra Fish	Experimental	96 hours	LC50	>179 mg/l
ketone	108-10-1	Zeora Fish	Experimental	96 Hours	LC30	21 /9 mg/1
Methyl isobutyl	108-10-1	Fathead minnow	Experimental	32 days	NOEC	56.2 mg/l
ketone	100 10 1	1 attieud iiiiiiiow	Experimental	32 days	Nobe	30.2 mg/1
Methyl isobutyl	108-10-1	Water flea	Experimental	21 days	NOEC	78 mg/l
ketone	100 10 1	1100	Z.iperimentar	21 4475	1,020	/ Ug. 1
Methyl isobutyl	108-10-1	Activated sludge	Experimental	30 minutes	EC50	>1,000
ketone						ĺ
Benzene, ethenyl-,	9003-53-6	N/A	Data not available	N/A	N/A	N/A
homopolymer			or insufficient for			
(oligomeric)			classification			
Carbon black	1333-86-4	Activated sludge	Experimental	3 hours	EC50	>=100 mg/l
Carbon black	1333-86-4	N/A	Data not available	N/A	N/A	N/A
			or insufficient for			
		4	classification			
Zinc Oxide	1314-13-2	Activated sludge	Estimated	3 hours	EC50	6.5 mg/l
Zinc Oxide	1314-13-2	Green algae	Estimated	72 hours	EC50	0.052 mg/l
Zinc Oxide	1314-13-2	Rainbow trout	Estimated	96 hours	LC50	0.21 mg/l
Zinc Oxide	1314-13-2	Water flea	Estimated	48 hours	EC50	0.07 mg/l
Zinc Oxide	1314-13-2	Green algae	Estimated	72 hours	NOEC	0.006 mg/l
Zinc Oxide	1314-13-2	Water flea	Estimated	7 days	NOEC	0.02 mg/l
Benzene	71-43-2	Green algae	Experimental	72 hours	EC50	100 mg/l
Benzene	71-43-2	Rainbow trout	Experimental	96 hours	LC50	5.3 mg/l
Benzene	71-43-2	Water flea	Experimental	48 hours	EC50	10 mg/l
Benzene	71-43-2	Fathead minnow	Experimental	32 days	NOEC	0.8 mg/l
Benzene	71-43-2	Green algae	Experimental	72 hours	EC10	34 mg/l
Benzene	71-43-2	Water flea	Experimental	7 days	NOEC	3 mg/l
Benzene	71-43-2	Bacteria	Experimental	24 hours	IC50	13 mg/l

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Naphtha (petroleum), solvent-refined light	64741-84-0	Estimated Biodegradation	28 days	BOD	98 %BOD/ThOD	OECD 301F - Manometric respirometry
n-Hexane	110-54-3	Experimental Bioconcentration	28 days	BOD	100 %BOD/ThOD	OECD 301C - MITI test (I)

n-Hexane	110-54-3	Experimental		Photolytic half-life	5.4 days (t 1/2)	
		Photolysis		(in air)	• ` ` `	
Heptane	142-82-5	Experimental Biodegradation	28 days	BOD	101 %BOD/ThOD	OECD 301C - MITI test (I)
Heptane	142-82-5	Experimental Photolysis		Photolytic half-life (in air)	4.24 days (t 1/2)	
Methylcyclopentan e	96-37-7	Experimental Biodegradation	28 days	BOD	2 %BOD/ThOD	OECD 301C - MITI test (I)
Methylcyclopentan e	96-37-7	Estimated Photolysis		Photolytic half-life (in air)	5.33 days (t 1/2)	
2-Methylpentane	107-83-5	Experimental Biodegradation	28 days	BOD	93 %BOD/ThOD	OECD 301C - MITI test (I)
2-Methylpentane	107-83-5	Experimental Photolysis		Photolytic half-life (in air)	5.4 days (t 1/2)	
3-Methylpentane	96-14-0	Estimated Biodegradation	28 days	BOD	93 %BOD/ThOD	OECD 301C - MITI test (I)
3-Methylpentane	96-14-0	Experimental Photolysis		Photolytic half-life (in air)	5.3 days (t 1/2)	
Cyclohexane	110-82-7	Experimental Biodegradation	28 days	BOD	77 %BOD/ThOD	OECD 301F - Manometric respirometry
Cyclohexane	110-82-7	Experimental Photolysis		Photolytic half-life (in air)	4.14 days (t 1/2)	
Naphtha, light steam-cracked aromatic, piperylene concentrate, polymerised	68478-07-9	Data not available- insufficient	N/A	N/A	N/A	N/A
Polyisoprene	9003-31-0	Data not available- insufficient	N/A	N/A	N/A	N/A
Styrene-butadiene polymer	9003-55-8	Data not available- insufficient	N/A	N/A	N/A	N/A
Talc	14807-96-6	Data not available- insufficient	N/A	N/A	N/A	N/A
Toluene	108-88-3	Experimental Biodegradation	20 days	BOD	80 %BOD/ThOD	APHA Std Meth Water/Wastewater
Toluene	108-88-3	Experimental Photolysis		Photolytic half-life (in air)	5.2 days (t 1/2)	
2,3- Dimethylbutane	79-29-8	Estimated Biodegradation	28 days	BOD	51 %BOD/ThOD	OECD 301F - Manometric respirometry
2,3- Dimethylbutane	79-29-8	Experimental Photolysis		Photolytic half-life (in air)	5.1 days (t 1/2)	
Calcium zinc resinate	68334-35-0	Experimental Biodegradation	28 days	CO2 evolution	80 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Phenolic Resin	Trade Secret	Data not available- insufficient	N/A	N/A	N/A	N/A
Ethanol	64-17-5	Experimental Biodegradation	14 days	BOD	89 %BOD/ThOD	OECD 301C - MITI test (I)
Methyl isobutyl ketone	108-10-1	Experimental Biodegradation	28 days	BOD	83 %BOD/ThOD	OECD 301F - Manometric respirometry
Methyl isobutyl ketone	108-10-1	Experimental Photolysis		Photolytic half-life (in air)	2.3 days (t 1/2)	
Benzene, ethenyl-, homopolymer (oligomeric)	9003-53-6	Data not available- insufficient	N/A	N/A	N/A	N/A
Carbon black	1333-86-4	Data not available- insufficient	N/A	N/A	N/A	N/A
Zinc Oxide	1314-13-2	Data not available- insufficient	N/A	N/A	N/A	N/A
Benzene	71-43-2	Experimental Biodegradation	28 days	BOD	96 %BOD/ThOD	OECD 301F - Manometric respirometry

Benzene	71-43-2	Experimental	Photolytic half-life	26 days (t 1/2)	
		Photolysis	(in air)		

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Naphtha (petroleum), solvent-refined light	64741-84-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
n-Hexane	110-54-3	Modeled Bioconcentration		Bioaccumulation factor	50	Catalogic™
Heptane	142-82-5	Estimated Bioconcentration		Bioaccumulation factor	105	
Methylcyclopentan e	96-37-7	Experimental Bioconcentration		Log Kow	3.37	
2-Methylpentane	107-83-5	Estimated Bioconcentration		Bioaccumulation factor	63	
3-Methylpentane	96-14-0	Estimated Bioconcentration		Bioaccumulation factor	150	
Cyclohexane	110-82-7	Experimental BCF - Fish	56 days	Bioaccumulation factor	129	OECD305-Bioconcentration
Naphtha, light steam-cracked aromatic, piperylene concentrate, polymerised	68478-07-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Polyisoprene	9003-31-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Styrene-butadiene polymer	9003-55-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Talc	14807-96-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Toluene	108-88-3	Experimental BCF - Other	72 hours	Bioaccumulation factor	90	
Toluene	108-88-3	Experimental Bioconcentration		Log Kow	2.73	
2,3- Dimethylbutane	79-29-8	Estimated Bioconcentration		Bioaccumulation factor	79	
Calcium zinc resinate	68334-35-0	Analogous Compound BCF - Fish	30 days	Bioaccumulation factor	≤129	
Calcium zinc resinate	68334-35-0	Experimental Bioconcentration		Log Kow	1.84	
Phenolic Resin	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Ethanol	64-17-5	Experimental Bioconcentration		Log Kow	-0.35	
Methyl isobutyl ketone	108-10-1	Experimental Bioconcentration		Log Kow	1.9	OECD 117 log Kow HPLC method
Benzene, ethenyl-, homopolymer (oligomeric)	9003-53-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Carbon black	1333-86-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Zinc Oxide	1314-13-2	Experimental BCF - Fish	56 days	Bioaccumulation factor	≤217	OECD305-Bioconcentration
Benzene	71-43-2	Experimental BCF - Other		Bioaccumulation factor	<10	similar to OECD 305
Benzene	71-43-2	Experimental Bioconcentration		Log Kow	2.13	

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 uncured product in a permitted waste incineration facility.

SECTION 14: Transport Information

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

UN No.: UN1133

Proper shipping name: ADHESIVES

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.: UN1133

Proper shipping name: ADHESIVES

Class/Division: 3

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

International Maritime Dangerous Goods Code (IMDG)- Marine Transport

UN No.: UN1133

Proper shipping name: ADHESIVES

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:

The chemical components contained within this product are listed on the Australian Inventory of Chemical Substances and are in compliance with the requirements of the Industrial Chemicals (Notification and Assessment) Act 1989 as amended.

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