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.

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.
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.
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.
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.
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 + P233	Store in a well-ventilated place. Keep container tightly closed.
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
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
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, piperylene concentrate, polymerised	68478-07-9	1 - 10
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 (oligomeric)	9003-53-6	< 0.5
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.

Eye 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

Substance	Condition
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-hexane)	107-83-5	Australia OELs	TWA(8 hours): 1760 mg/m3 (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 ppm);STEL(15 minutes):574	SKIN

			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)	
Hexane (isomers other than n-hexane)	110-54-3	ACGIH	TWA:500 ppm;STEL:1000 ppm	
Hexane (isomers other than n-hexane)	110-54-3	Australia OELs	TWA(8 hours): 1760 mg/m3 (500 ppm); STEL(15 minutes): 3500 mg/m3 (1000 ppm)	
Cyclohexane	110-82-7	ACGIH	TWA:100 ppm	
Cyclohexane	110-82-7	Australia OELs	TWA(8 hours):350 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	TWA:0.5 ppm;STEL:2.5 ppm	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:
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.*
pH	*No data available.*
Melting point/Freezing point	*No data available.*
Boiling point/Initial boiling point/Boiling range	64.4 - 87.2 ºC
Flash point	-21.1 ºC [*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 ºC]
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.*

Nanoparticles
This material contains nanoparticles.

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	**Condition**
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
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.

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:
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 hours)	Rat	LC50 >8.2,<16.4 mg/l
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 (4 hours)	Rat	LC50 > 5.7 mg/l
Zinc Oxide	Ingestion	Rat	LD50 > 5,000 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

Serious Eye 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

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

Respiratory Sensitisation

Name	Species	Value
Talc	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
n-Hexane	In Vitro	Not mutagenic
n-Hexane	In vivo	Not mutagenic
Heptane	In Vitro	Not mutagenic
Toluene	In Vitro	Not mutagenic
Toluene	In vivo	Not mutagenic
Talc	In Vitro	Not mutagenic
Talc	In vivo	Not mutagenic
Cyclohexane	In Vitro	Not mutagenic
Cyclohexane	In vivo	Some positive data exist, but the data are not sufficient for classification
Ethanol	In Vitro	Some positive data exist, but the data are not sufficient for classification
Ethanol	In vivo	Some positive data exist, but the data are not sufficient for classification
Methyl isobutyl ketone	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
Zinc Oxide	In Vitro	Some positive data exist, but the data are not sufficient for classification
Zinc Oxide	In vivo	Some positive data exist, but the data are not sufficient for classification

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 species	Some positive data exist, but the data are not sufficient for classification
Methyl isobutyl ketone	Inhalation	Multiple animal species	Carcinogenic.
Carbon black	Dermal	Mouse	Not carcinogenic
Carbon black	Ingestion	Mouse	Not carcinogenic
Carbon black	Inhalation	Rat	Carcinogenic.

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Naphtha (petroleum), solvent-refined light	Ingestion	Toxic to male reproduction	similar compounds	NOAEL not available	not available
Naphtha (petroleum), solvent-refined light	Inhalation	Toxic to male reproduction	similar compounds	NOAEL not available	not available
n-Hexane	Ingestion	Not classified for development	Mouse	NOAEL 2,200 mg/kg/day	during organogenesis
n-Hexane	Inhalation	Not classified for development	Rat	NOAEL 0.7 mg/l	during gestation
n-Hexane	Ingestion	Toxic to male reproduction	Rat	NOAEL 1,140 mg/kg/day	90 days
n-Hexane	Inhalation	Toxic to male reproduction	Rat	LOAEL 3.52 mg/l	28 days
Toluene	Inhalation	Not classified for female reproduction	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	Not classified for male reproduction	Rat	NOAEL 2.3 mg/l	1 generation
Toluene	Ingestion	Toxic to development	Rat	LOAEL 520 mg/kg/day	during gestation
Toluene	Inhalation	Toxic to development	Human	NOAEL Not available	poisoning and/or abuse
Talc	Ingestion	Not classified for development	Rat	NOAEL 1,600 mg/kg	during organogenesis
Cyclohexane	Inhalation	Not classified for female reproduction	Rat	NOAEL 24 mg/l	2 generation
Cyclohexane	Inhalation	Not classified for male reproduction	Rat	NOAEL 24 mg/l	2 generation
Cyclohexane	Inhalation	Not classified for development	Rat	NOAEL 6.9 mg/l	2 generation
Ethanol	Inhalation	Not classified for development	Rat	NOAEL 38 mg/l	during gestation
Ethanol	Ingestion	Not classified for development	Rat	NOAEL 5,200 mg/kg/day	premating & during gestation
Methyl isobutyl ketone	Inhalation	Not classified for female reproduction	Multiple animal species	NOAEL 8.2 mg/l	2 generation
Methyl isobutyl ketone	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	13 weeks
Methyl isobutyl ketone	Inhalation	Not classified for male reproduction	Multiple animal species	NOAEL 8.2 mg/l	2 generation
Methyl isobutyl	Inhalation	Not classified for	Mouse	NOAEL 12.3	during

ketone		development		mg/l	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

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	
Methylcyclopentane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	similar compounds	NOAEL Not available	
Methylcyclopentane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
2-Methylpentane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
2-Methylpentane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
2-Methylpentane	Inhalation	cardiac sensitization	Not classified	Dog	NOAEL Not available	
2-	Ingestion	central nervous	May cause	Professional	NOAEL Not	

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

		depression				
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	May cause respiratory irritation	Human	NOAEL 0.9 mg/l	7 minutes
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

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 bladder	Not classified	Rat	LOAEL 1.76 mg/l	6 months
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-Methylpentane	Inhalation	peripheral nervous system	Not classified	Rat	NOAEL 5.3 mg/l	14 weeks
2-Methylpentane	Ingestion	peripheral nervous system	Not classified	Rat	NOAEL Not available	8 weeks
2-Methylpentane	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 2,000 mg/kg	28 days
3-Methylpentane	Inhalation	peripheral nervous system	Not classified	Rat	NOAEL 5.3 mg/l	14 weeks
3-Methylpentane	Ingestion	peripheral nervous system	Not classified	Rat	NOAEL Not available	8 weeks
3-Methylpentane	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	Not classified	Mouse	NOAEL 105	28 days

		system			mg/kg/day	
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-Dimethylbutane	Inhalation	peripheral nervous system	Not classified	Rat	NOAEL 5.3 mg/l	14 weeks
2,3-Dimethylbutane	Ingestion	peripheral nervous system	Not classified	Rat	NOAEL Not available	8 weeks
2,3-Dimethylbutane	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 data are not sufficient for classification	Rat	LOAEL 8,000 mg/kg/day	4 months
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

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 (petroleum), solvent-refined light	64741-84-0	Green Algae	Estimated	72 hours	EC50	30 mg/l
Naphtha (petroleum), solvent-refined light	64741-84-0	Rainbow trout	Estimated	96 hours	LL50	11.4 mg/l
Naphtha (petroleum), solvent-refined light	64741-84-0	Water flea	Estimated	48 hours	EL50	3 mg/l
Naphtha (petroleum), solvent-refined light	64741-84-0	Green Algae	Estimated	72 hours	NOEL	3 mg/l
Naphtha (petroleum), solvent-refined light	64741-84-0	Water flea	Estimated	21 days	NOEL	1 mg/l
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
Methylcyclopentane	96-37-7		Data not available or insufficient for classification			N/A
2-Methylpentane	107-83-5		Data not available or insufficient for classification			N/A
3-Methylpentane	96-14-0		Data not available or insufficient for classification			N/A
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 steam-cracked aromatic, piperylene concentrate, polymerised	68478-07-9		Data not available or insufficient for classification			N/A
Polyisoprene	9003-31-0		Data not available or insufficient for			N/A

			classification			
Styrene-butadiene polymer	9003-55-8		Data not available or insufficient for classification			N/A
Talc	14807-96-6		Data not available or insufficient for classification			N/A
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 bodyweight
Toluene	108-88-3	Soil microbes	Experimental	28 days	NOEC	<26 mg/kg (Dry Weight)
2,3-Dimethylbutane	79-29-8		Data not available or insufficient for classification			N/A
Calcium zinc resinate	68334-35-0	Bacteria	Estimated	30 minutes	EC10	3 mg/l
Calcium zinc resinate	68334-35-0	Fathead minnow	Estimated	96 hours	LC50	1.7 mg/l
Calcium zinc resinate	68334-35-0	Green Algae	Estimated	72 hours	EC50	39.6 mg/l
Calcium zinc resinate	68334-35-0	Water flea	Estimated	48 hours	EC50	1.6 mg/l
Calcium zinc resinate	68334-35-0	Green Algae	Estimated	72 hours	NOEC	6.25 mg/l
Phenolic Resin	Trade Secret		Data not available or insufficient for classification			n/a
Ethanol	64-17-5	Fathead minnow	Experimental	96 hours	LC50	14,200 mg/l
Ethanol	64-17-5	Fish other	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 ketone	108-10-1	Activated sludge	Experimental	30 minutes	EC50	>1,000 mg/l
Methyl isobutyl	108-10-1	Fathead	Experimental	96 hours	LC50	505 mg/l

ketone		minnow				
Methyl isobutyl ketone	108-10-1	Green Algae	Experimental	96 hours	EC50	400 mg/l
Methyl isobutyl ketone	108-10-1	Water flea	Experimental	48 hours	EC50	170 mg/l
Methyl isobutyl ketone	108-10-1	Fathead minnow	Experimental	32 days	NOEC	57 mg/l
Methyl isobutyl ketone	108-10-1	Water flea	Experimental	21 days	NOEC	78 mg/l
Benzene, ethenyl-, homopolymer (oligomeric)	9003-53-6		Data not available or insufficient for classification			N/A
Carbon black	1333-86-4	Activated sludge	Experimental	3 hours	EC50	>=100 mg/l
Carbon black	1333-86-4		Data not available or insufficient for classification			N/A
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	29 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	9.23 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

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/ThBOD	OECD 301F - Manometric respirometry
n-Hexane	110-54-3	Experimental Photolysis		Photolytic half-life (in air)	5.4 days (t 1/2)	Non-standard method
n-Hexane	110-54-3	Experimental Bioconcentration	28 days	BOD	100 % weight	OECD 301C - MITI test (I)
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/ThBOD	OECD 301C - MITI test (I)
Methylcyclopentane	96-37-7	Estimated Photolysis		Photolytic half-life (in air)	5.33 days (t 1/2)	Non-standard method
Methylcyclopentane	96-37-7	Experimental Biodegradation	28 days	BOD	2 % BOD/ThBOD	OECD 301C - MITI test (I)

2-Methylpentane	107-83-5	Experimental Photolysis		Photolytic half-life (in air)	5.4 days (t 1/2)	Non-standard method
2-Methylpentane	107-83-5	Experimental Biodegradation	28 days	BOD	93 % BOD/ThBOD	OECD 301C - MITI test (I)
3-Methylpentane	96-14-0	Experimental Photolysis		Photolytic half-life (in air)	5.3 days (t 1/2)	Non-standard method
3-Methylpentane	96-14-0	Estimated Biodegradation	28 days	BOD	93 % BOD/ThBOD	OECD 301C - MITI test (I)
Cyclohexane	110-82-7	Experimental Photolysis		Photolytic half-life (in air)	4.14 days (t 1/2)	Non-standard method
Cyclohexane	110-82-7	Experimental Biodegradation	28 days	BOD	77 % BOD/ThBOD	OECD 301F - Manometric respirometry
Naphtha, light steam-cracked aromatic, piperylene concentrate, polymerised	68478-07-9	Data not available-insufficient			N/A	
Polyisoprene	9003-31-0	Data not available-insufficient			N/A	
Styrene-butadiene polymer	9003-55-8	Data not available-insufficient			N/A	
Talc	14807-96-6	Data not available-insufficient			N/A	
Toluene	108-88-3	Experimental Photolysis		Photolytic half-life (in air)	5.2 days (t 1/2)	
Toluene	108-88-3	Experimental Biodegradation	20 days	BOD	80 % BOD/ThBOD	APHA Std Meth Water/Wastewater
2,3-Dimethylbutane	79-29-8	Experimental Photolysis		Photolytic half-life (in air)	5.1 days (t 1/2)	Non-standard method
2,3-Dimethylbutane	79-29-8	Estimated Biodegradation	28 days	BOD	51 % BOD/ThBOD	OECD 301F - Manometric respirometry
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	
Ethanol	64-17-5	Experimental Biodegradation	14 days	BOD	89 % BOD/ThBOD	OECD 301C - MITI test (I)
Methyl isobutyl ketone	108-10-1	Experimental Photolysis		Photolytic half-life (in air)	2.28 days (t 1/2)	Non-standard method
Methyl isobutyl ketone	108-10-1	Experimental Biodegradation	14 days	BOD	84 % weight	OECD 301C - MITI test (I)
Benzene, ethenyl-, homopolymer (oligomeric)	9003-53-6	Data not available-insufficient			N/A	

Carbon black	1333-86-4	Data not available-insufficient			N/A	
Zinc Oxide	1314-13-2	Data not available-insufficient			N/A	
Benzene	71-43-2	Experimental Photolysis		Photolytic half-life (in air)	26 days (t 1/2)	Non-standard method
Benzene	71-43-2	Experimental Biodegradation	28 days	BOD	63 % weight	OECD 301F - Manometric respirometry

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	Estimated Bioconcentration		Bioaccumulation factor	50	Estimated: Bioconcentration factor
Heptane	142-82-5	Estimated Bioconcentration		Bioaccumulation factor	105	Estimated: Bioconcentration factor
Methylcyclopentane	96-37-7	Experimental Bioconcentration		Log Kow	3.37	Non-standard method
2-Methylpentane	107-83-5	Estimated Bioconcentration		Bioaccumulation factor	63	Non-standard method
3-Methylpentane	96-14-0	Estimated Bioconcentration		Bioaccumulation factor	150	Estimated: Bioconcentration factor
Cyclohexane	110-82-7	Experimental BCF-Carp	56 days	Bioaccumulation factor	129	OECD 305E - Bioaccumulation flow-through fish test
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	Estimated: Bioconcentration factor
Calcium zinc resinate	68334-35-0	Analogous Compound BCF - Rainbow Trout	30 days	Bioaccumulation factor	≤129	
Calcium zinc resinate	68334-35-0	Experimental Bioconcentration		Log Kow	1.84	Non-standard method
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	Non-standard method
Methyl isobutyl ketone	108-10-1	Experimental Bioconcentration		Log Kow	1.31	Non-standard 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-Carp	56 days	Bioaccumulation factor	≤217	OECD 305E - Bioaccumulation flow-through fish test
Benzene	71-43-2	Experimental Bioconcentration		Log Kow	2.13	Non-standard method

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 Other adverse effects

Material	CAS Number	Ozone Depletion Potential	Global Warming Potential
methyl isobutyl ketone	108-10-1	0	

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