

Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

3M[™] VHB[™] Tape Universal Primer UV

Product Identification Numbers

70-0075-0487-4 70-0075-0502-0 70-0075-0505-3 70-0075-0506-1 70-0075-0507-9

7100107032 7100107033 7100116406 7100114901 7100114427

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Adhesion promoter.

1.3. Details of the supplier of the safety data sheet

Address: 3M Ireland Limited, The Iveagh Building, The Park, Carrickmines, Dublin 18.

Telephone: +353 1 280 3555 E Mail: tox.uk@mmm.com Website: www.3M.com

1.4. Emergency telephone number

Emergency medical information: 8am-10pm (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland. Telephone Number: +353 (0)1 809 2166

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

The health and environmental classifications of this material have been derived using the calculation method, except in cases where test data are available or the physical form impacts classification. Classification(s) based on test data or physical form are noted below, if applicable.

CLASSIFICATION:

Flammable Liquid, Category 2 - Flam. Liq. 2; H225 Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315

Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319

Skin Sensitization, Category 1A - Skin Sens. 1A; H317

Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H336

Aspiration Hazard, Category 1 - Asp. Tox. 1; H304

Hazardous to the Aquatic Environment (Chronic), Category 2 - Aquatic Chronic 2; H411

For full text of H phrases, see Section 16.

2.2. Label elements

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

DANGER.

Symbols

GHS02 (Flame) |GHS07 (Exclamation mark) |GHS08 (Health Hazard) |GHS09 (Environment) |

Pictograms









Ingredients:

Ingredient	CAS Nbr	EC No.	% by Wt		
Hydrocarbons, C7, n-alkanes, isoalkanes, cyc	elics	927-510-4	40 - 60		
methyl acetate	79-20-9	201-185-2	30 - 50		
maleic anhydride	108-31-6	203-571-6	< 0.1		

HAZARD STATEMENTS:

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H317 May cause an allergic skin reaction.
 H336 May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways.

H411 Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261A Avoid breathing vapours.

P273 Avoid release to the environment.

P280E Wear protective gloves.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.

P331 Do NOT induce vomiting.

For containers not exceeding 125 ml the following Hazard and Precautionary statements may be used:

<=125 ml Hazard statements

H317 May cause an allergic skin reaction.

H304 May be fatal if swallowed and enters airways.

<=125 ml Precautionary statements

Prevention:

P280E Wear protective gloves.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.

P331 Do NOT induce vomiting.

4% of the mixture consists of components of unknown acute oral toxicity.

Contains 23% of components with unknown hazards to the aquatic environment.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Ingredient	Identifier(s)	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	(EC-No.) 927-510-4	40 - 60	Aquatic Chronic 2, H411 Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336
methyl acetate	(CAS-No.) 79-20-9 (EC-No.) 201-185-2	30 - 50	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066
Non-volatile polymeric components	Trade Secret	1 - 6	Substance not classified as hazardous
Tributyl o-acetylcitrate	(CAS-No.) 77-90-7 (EC-No.) 201-067-0	< 2	Substance not classified as hazardous
maleic anhydride	(CAS-No.) 108-31-6 (EC-No.) 203-571-6	< 0.1	EUH071 Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Resp. Sens. 1, H334 Skin Sens. 1A, H317 STOT RE 1, H372

Any entry in the Identifier(s) column that begins with the numbers 6, 7, 8, or 9 are a Provisional List Number provided by ECHA pending publication of the official EC Inventory Number for the substance. Please see section 16 for the full text of any H statements referred to in this section

Specific Concentration Limits

Ingredient	Identifier(s)	Specific Concentration Limits
3	(CAS-No.) 108-31-6 (EC-No.) 203-571-6	(C >= 0.001%) Skin Sens. 1A, H317

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

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

Do not induce vomiting. Get immediate medical attention.

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

The most important symptoms and effects based on the CLP classification include:

Irritation to the skin (localized redness, swelling, itching, and dryness). Allergic skin reaction (redness, swelling, blistering, and itching). Serious irritation to the eyes (significant redness, swelling, pain, tearing, and impaired vision). Aspiration pneumonitis (coughing, gasping, choking, burning of the mouth, and difficulty breathing). Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness).

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

Not applicable.

SECTION 5: Fire-fighting measures

5.1. 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

SubstanceConditionCarbon monoxideDuring combustion.Carbon dioxide.During combustion.

5.3. Advice 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.

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 vapours, 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 that is resistant to polar solvents. 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.

6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing 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. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. 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. Protect from sunlight. Store away from heat. Store away from oxidising agents.

7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

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

maleic anhydride 108-31-6 UK HSC TWA: 1 mg/m³; STEL: 3 Respiratory Sensitizer

mg/m³

methyl acetate 79-20-9 UK HSC TWA:616 mg/m³(200

ppm);STEL:770 mg/m³(250

ppm)

UK HSC: UK Health and Safety Commission

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

CEIL: Ceiling

Biological limit values

No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

Recommended monitoring procedures: Information on recommended monitoring procedures can be obtained from Indust. Inspect./Ministry (IE)

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.

Applicable Norms/Standards
Use eye protection conforming to EN 166

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:

MaterialThickness (mm)Breakthrough TimePolymer laminateNo data availableNo data available

Applicable Norms/Standards
Use gloves tested to EN 374

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

Respiratory protection

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

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

For questions about suitability for a specific application, consult with your respirator manufacturer.

Applicable Norms/Standards

Use a respirator conforming to EN 140 or EN 136: filter types A & P

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Liquid. Specific Physical Form: Colour Colourless Odor Solvent

Odour threshold No data available.

Melting point/freezing point Not applicable.

Boiling point/boiling range 61.9 °C [@ 101,324.72 Pa] Flammability (solid, gas) Not applicable.

Flammable Limits(LEL) 1.2 % [Details:heptane] Flammable Limits(UEL) 16 % [Details:methyl acetate] -10 °C [Test Method: Closed Cup] Flash point

Liquid.

4.4

Autoignition temperature No data available. **Decomposition temperature** No data available.

30.4878048780488 mm²/sec **Kinematic Viscosity** Water solubility 23 % [@, 23 °C]

Solubility- non-water No data available. Partition coefficient: n-octanol/water No data available. Vapour pressure 20,318.3 Pa [@ 20 °C] 0.77 g/ml [@ 23 °C] Density

Relative density 0.77 [@ 23 °C] [Ref Std:WATER=1]

No data available. **Relative Vapor Density**

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds <=96 %

Evaporation rate No data available. Molecular weight *Not applicable.*

Percent volatile <=96 % weight [Test Method: Estimated]

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Heat.

Sparks and/or flames.

10.5 Incompatible materials

Strong oxidising agents.

10.6 Hazardous decomposition products

Substance

Condition

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from internal hazard assessments.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Signs and Symptoms of Exposure

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

Inhalation

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

Skin contact

Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, dryness, cracking, blistering, and pain. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eve contact

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

Ingestion

Chemical (aspiration) pneumonitis: Signs/symptoms may include coughing, gasping, choking, burning of the mouth, difficulty breathing, bluish coloured skin (cyanosis), and may be fatal. 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.

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		No data available; calculated ATE20 - 50 mg/l

	hr)		
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Dermal	Rabbit	LD50 > 2,920 mg/kg
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Dermal	Rabbit	LD50 > 3,160 mg/kg
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Dermal	Rat	LD50 > 2,000 mg/kg
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Inhalation- Vapour (4 hours)	Rat	LC50 > 14.7 mg/l
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Inhalation- Vapour (4 hours)	Rat	LC50 > 23.3 mg/l
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Inhalation- Vapour (4 hours)	Rat	LC50 > 5.61 mg/l
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Ingestion	Rat	LD50 > 5,840 mg/kg
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Ingestion	Rat	LD50 > 5,000 mg/kg
methyl acetate	Dermal	Rat	LD50 > 2,000 mg/kg
methyl acetate	Inhalation- Vapour (4 hours)	Rat	LC50 > 49 mg/l
methyl acetate	Ingestion	Rat	LD50 > 5,000 mg/kg
Tributyl o-acetylcitrate	Dermal	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg
Tributyl o-acetylcitrate	Ingestion	Rat	LD50 > 25,000 mg/kg
maleic anhydride	Dermal	Rabbit	LD50 2,620 mg/kg
maleic anhydride	Ingestion	Rat	LD50 1,030 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Rabbit	Irritant
methyl acetate	Rabbit	No significant irritation
maleic anhydride	Human	Corrosive
	and	
	animal	

Serious Eye Damage/Irritation

Name	Species	Value
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Rabbit	No significant irritation
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Rabbit	Mild irritant
methyl acetate	Rabbit	Moderate irritant
maleic anhydride	Rabbit	Corrosive

Skin Sensitisation

Name	Species	Value
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Guinea	Not classified
	pig	
methyl acetate	Human	Not classified
maleic anhydride	Multiple	Sensitising
	animal	
	species	

Respiratory Sensitisation

Name	Species	Value
maleic anhydride	Human	Sensitising

Germ Cell Mutagenicity

Name	Route	Value
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	In Vitro	Not mutagenic
methyl acetate	In Vitro	Not mutagenic
methyl acetate	In vivo	Not mutagenic
maleic anhydride	In vivo	Not mutagenic
maleic anhydride	In Vitro	Some positive data exist, but the data are not
		sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Inhalation	Mouse	Some positive data exist, but the data are not
			sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Not specified.	Not classified for female reproduction	Rat	NOAEL Not available	2 generation
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Not specified.	Not classified for male reproduction	Rat	NOAEL Not available	2 generation
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Not specified.	Not classified for development	Rat	NOAEL Not available	2 generation
maleic anhydride	Ingestion	Not classified for female reproduction	Rat	NOAEL 55 mg/kg/day	2 generation
maleic anhydride	Ingestion	Not classified for male reproduction	Rat	NOAEL 55 mg/kg/day	2 generation
maleic anhydride	Ingestion	Not classified for development	Rat	NOAEL 140 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	
methyl acetate	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
methyl acetate	Inhalation	respiratory irritation	May cause respiratory irritation	Human and animal	NOAEL Not available	
methyl acetate	Inhalation	blindness	Not classified		NOAEL Not available	
methyl acetate	Ingestion	central nervous system depression	May cause drowsiness or dizziness		NOAEL Not available	
maleic anhydride	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL Not	

			available	
			available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
methyl acetate	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.1 mg/l	28 days
methyl acetate	Inhalation	endocrine system hematopoietic system liver immune system kidney and/or bladder	Not classified	Rat	NOAEL 6.1 mg/l	28 days
maleic anhydride	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.0011 mg/l	6 months
maleic anhydride	Inhalation	endocrine system hematopoietic system nervous system kidney and/or bladder heart liver eyes	Not classified	Rat	NOAEL 0.0098 mg/l	6 months
maleic anhydride	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 55 mg/kg/day	80 days
maleic anhydride	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 250 mg/kg/day	183 days
maleic anhydride	Ingestion	heart nervous system	Not classified	Rat	NOAEL 600 mg/kg/day	183 days
maleic anhydride	Ingestion	gastrointestinal tract	Not classified	Rat	NOAEL 150 mg/kg/day	80 days
maleic anhydride	Ingestion	hematopoietic system	Not classified	Dog	NOAEL 60 mg/kg/day	90 days
maleic anhydride	Ingestion	skin endocrine system immune system eyes respiratory system	Not classified	Rat	NOAEL 150 mg/kg/day	80 days

Aspiration Hazard

Name	Value
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Aspiration hazard

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

11.2. Information on other hazards

This material does not contain any substances that are assessed to be an endocrine disruptor for human health.

SECTION 12: Ecological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

Material	CAS#	Organism	Type	Exposure	Test endpoint	Test result

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Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics	927-510-4	Fathead minnow	Estimated	96 hours	LL50	8.2 mg/l
Hydrocarbons, C7, n-alkanes, isoalkanes,	927-510-4	Green Algae	Estimated	72 hours	EL50	3.1 mg/l
Cyclics Hydrocarbons, C7, n-	927-510-4	Green Algae	Estimated	72 hours	EL50	29 mg/l
alkanes, isoalkanes, cyclics Hydrocarbons, C7, n-	027 510 4	W-4 fl	E-tim-t-d	40 h	EL50	2 //
alkanes, isoalkanes, cyclics	927-510-4	Water flea	Estimated	48 hours	ELSU	3 mg/l
Hydrocarbons, C7, n-alkanes, isoalkanes,	927-510-4	Water flea	Estimated	48 hours	EL50	4.5 mg/l
cyclics Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics	927-510-4	Rainbow trout	Experimental	96 hours	LL50	>13.4 mg/l
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics	927-510-4		Data not available or insufficient for classification			N/A
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics	927-510-4	Green Algae	Estimated	72 hours	NOEL	0.5 mg/l
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics	927-510-4	Green Algae	Estimated	72 hours	NOEL	6.3 mg/l
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics	927-510-4	Water flea	Estimated	21 days	NOEL	1 mg/l
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics	927-510-4	Water flea	Estimated	21 days	NOEL	2.6 mg/l
methyl acetate	79-20-9	Bacteria	Experimental	16 hours	EC50	6,000 mg/l
methyl acetate	79-20-9	Green algae	Experimental	72 hours	EC50	>120 mg/l
methyl acetate	79-20-9	Water flea	Experimental	48 hours	EC50	1,026.7 mg/l
methyl acetate	79-20-9	Green algae	Experimental	72 hours	NOEC	120 mg/l
Non-volatile polymeric components	Trade Secret		Data not available or insufficient for classification			N/A
Tributyl o-acetylcitrate		Bluegill	Experimental	96 hours	LC50	38 mg/l
Tributyl o-acetylcitrate	77-90-7	Green algae	Experimental	72 hours	EC50	74.4 mg/l
Tributyl o-acetylcitrate	77-90-7	Water flea	Experimental	48 hours	EC50	7.82 mg/l
Tributyl o-acetylcitrate	77-90-7	Green algae	Experimental	72 hours	NOEC	4.65 mg/l
Tributyl o-acetylcitrate	77-90-7	Water flea	Experimental	21 days	NOEC	>1.11 mg/l
maleic anhydride	108-31-6	Green algae	Estimated	72 hours	EC50	74.4 mg/l
maleic anhydride	108-31-6	Water flea	Estimated	48 hours	EC50	93.8 mg/l
maleic anhydride	108-31-6	Bacteria	Experimental	18 hours	EC10	44.6 mg/l
maleic anhydride	108-31-6	Rainbow trout	Experimental	96 hours	LC50	75 mg/l
maleic anhydride	108-31-6	Green algae	Estimated	72 hours	EC10	11.8 mg/l
maleic anhydride	108-31-6	Water flea	Experimental	21 days	NOEC	10 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	927-510-4	Estimated Biodegradation	28 days	BOD	98 %BOD/CO D	OECD 301F - Manometric respirometry
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	927-510-4	Data not availbl- insufficient			N/A	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	927-510-4	Estimated Biodegradation	28 days	BOD	77 % BOD/ThBOD	OECD 301F - Manometric respirometry
methyl acetate	79-20-9	Experimental Biodegradation	28 days	BOD	70 % weight	OECD 301D - Closed bottle test
Non-volatile polymeric components	Trade Secret	Data not availbl- insufficient			N/A	
Tributyl o-acetylcitrate	77-90-7	Experimental Biodegradation	28 days	BOD	48 % weight	Non-standard method
maleic anhydride	108-31-6	Experimental Hydrolysis		Hydrolytic half-life	22 seconds (t 1/2)	Non-standard method
maleic anhydride	108-31-6	Estimated Biodegradation	25 days	CO2 evolution	>90 % weight	OECD 301B - Modified sturm or CO2

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	927-510-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	927-510-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	927-510-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
methyl acetate	79-20-9	Experimental Bioconcentration		Log Kow	0.18	Non-standard method
Non-volatile polymeric components	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Tributyl o-acetylcitrate	77-90-7	Estimated Bioconcentration		Bioaccumulation factor	5.1	Estimated: Bioconcentration factor
maleic anhydride	108-31-6	Experimental Bioconcentration		Log Kow	-2.61	Non-standard method

12.4. Mobility in soil

No test data available.

12.5. Results of the PBT and vPvB assessment

This material does not contain any substances that are assessed to be a PBT or vPvB

12.6. Endocrine disrupting properties

This material does not contain any substances that are assessed to be an endocrine disruptor for environmental effects

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

EU waste code (product as sold)

08 04 09* Waste adhesives and sealants containing organic solvents or other dangerous substances

SECTION 14: Transportation information

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 UN number	UN1993	UN1993	UN1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S.(HEPTANE; METHYL ACETATE)	FLAMMABLE LIQUID, N.O.S.(HEPTANE; METHYL ACETATE)	FLAMMABLE LIQUID, N.O.S.(HEPTANE; METHYL ACETATE)
14.3 Transport hazard class(es)	3	3	3
14.4 Packing group	II	II	II
14.5 Environmental hazards	Not Environmentally Hazardous	Not applicable	Not a Marine Pollutant
14.6 Special precautions for user	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.
14.7 Transport in bulk according to Annex II of Marpol 73/78 and IBC Code	No data available.	No Data Available	No Data Available
Control Temperature	No data available.	No Data Available	No Data Available
Emergency Temperature	No data available.	No Data Available	No Data Available
ADR Tunnel Code	(E)	Not Applicable	Not Applicable
ADR Classification Code	F1	Not Applicable	Not Applicable

ADR Transport Category	4	Not Applicable	Not Applicable
ADR Multiplier	0	0	0
IMDG Segregation Code	Not applicable.	Not Applicable	NONE
Transport not Permitted	Not applicable.	Not Applicable	Not Applicable

Please contact the address or phone number listed on the first page of the SDS for additional information on the transport/shipment of the material by rail (RID) or inland waterways (ADN).

SECTION 15: Regulatory information

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

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out for this substance/mixture in accordance with Regulation (EC) No 1907/2006, as amended.

SECTION 16: Other information

List of relevant H statements

EUH066	Repeated exposure may cause skin dryness or cracking.
EUH071	Corrosive to the respiratory tract.
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H336	May cause drowsiness or dizziness.
H372	Causes damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Revision information:

EU Section 09: pH information information was added.

Section 1: Emergency telephone information was modified.

Section 1: Product use information information was modified.

Section 2: <125ml Precautionary - Response information was modified.

CLP: Ingredient table information was modified.

Label: CLP Classification information was modified.

- Label: CLP Percent Unknown information was modified.
- Label: CLP Precautionary Disposal information was deleted.
- Label: CLP Precautionary Prevention information was modified.
- Label: CLP Precautionary Response information was modified.
- Section 03: Composition table % Column heading information was added.
- Section 3: Composition/Information of ingredients table information was modified.
- Section 03: SCL table information was added.
- Section 03: Substance not applicable information was added.
- Section 04: First Aid Symptoms and Effects (CLP) information was added.
- Section 04: Information on toxicological effects information was modified.
- Section 5: Hazardous combustion products table information was modified.
- Section 6: Accidental release clean-up information information was modified.
- Section 8: Occupational exposure limit table information was modified.
- Section 9: Boiling point information information was modified.
- Section 9: Density information information was modified.
- Section 9: Evaporation Rate information information was deleted.
- Section 9: Explosive properties information information was deleted.
- Section 9: Flammable limits (LEL) information information was modified.
- Section 9: Flammable limits (UEL) information information was modified.
- Section 9: Flash point information information was modified.
- Section 09: Kinematic Viscosity information information was added.
- Section 9: Melting point information information was modified.
- Section 9: Oxidising properties information information was deleted.
- Section 9: pH information information was deleted.
- Section 9: Property description for optional properties information was modified.
- Section 9: Relative density information information was modified.
- Section 9: Solubility in water value information was modified.
- Section 9: Vapour density value information was added.
- Section 9: Vapour density value information was deleted.
- Section 9: Vapour pressure value information was modified.
- Section 9: Viscosity information information was deleted.
- Section 11: Acute Toxicity table information was modified.
- Section 11: Classification disclaimer information was modified.
- Section 11: Germ Cell Mutagenicity Table information was modified.
- Section 11: No endocrine disruptor information available warning information was added.
- Section 11: Reproductive Toxicity Table information was modified.
- Section 11: Respiratory Sensitization Table information was modified.
- Section 11: Serious Eye Damage/Irritation Table information was modified.
- Section 11: Skin Corrosion/Irritation Table information was modified.
- Section 11: Skin Sensitization Table information was modified.
- Section 11: Target Organs Repeated Table information was modified.
- Section 11: Target Organs Single Table information was modified.
- Section 12: 12.6. Endocrine Disrupting Properties information was added.
- Section 12: 12.7. Other adverse effects information was modified.
- Section 12: Component ecotoxicity information information was modified.
- Section 12: Contact manufacturer for more detail. information was deleted.
- Section 12: No Data text for mobility in soil information was added.
- Section 12: No endocrine disruptor information available warning information was added.
- Section 12: Persistence and Degradability information information was modified.
- Section 12:Bioccumulative potential information information was modified.
- Section 14 Classification Code Main Heading information was added.
- Section 14 Classification Code Regulation Data information was added.
- Section 14 Control Temperature Main Heading information was added.
- Section 14 Control Temperature Regulation Data information was added.
- Section 14 Disclaimer Information information was added.
- Section 14 Emergency Temperature Main Heading information was added.

- Section 14 Emergency Temperature Regulation Data information was added.
- Section 14 Hazard Class + Sub Risk Main Heading information was added.
- Section 14 Hazard Class + Sub Risk Regulation Data information was added.
- Section 14 Hazardous/Not Hazardous for Transportation information was added.
- Section 14 Multiplier Main Heading information was added.
- Section 14 Multiplier Regulation Data information was added.
- Section 14 Other Dangerous Goods Main Heading information was added.
- Section 14 Other Dangerous Goods Regulation Data information was added.
- Section 14 Packing Group Main Heading information was added.
- Section 14 Packing Group Regulation Data information was added.
- Section 14 Proper Shipping Name information was added.
- Section 14 Regulations Main Headings information was added.
- Section 14 Segregation Regulation Data information was added.
- Section 14 Segregation Code Main Heading information was added.
- Section 14 Special Precautions Main Heading information was added.
- Section 14 Special Precautions Regulation Data information was added.
- Section 14 Transport Category Main Heading information was added.
- Section 14 Transport Category Regulation Data information was added.
- Section 14 Transport in bulk Regulation Data information was added.
- Section 14 Transport in bulk according to Annex II of Marpol and the IBC Code Main Heading information was added.
- Section 14 Transport Not Permitted Main Heading information was added.
- Section 14 Transport Not Permitted Regulation Data information was added.
- Section 14 Tunnel Code Main Heading information was added.
- Section 14 Tunnel Code Regulation Data information was added.
- Section 14 UN Number Column data information was added.
- Section 14 UN Number information was added.
- Sectio 16: UK disclaimer information was deleted.

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