

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 DisplayMount Spray Adhesive

Product Identification Numbers YP-2080-6067-0

7000116738

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

Identified uses Adhesive aerosol.

1.3. Details of the supplier of the safety data sheet

Address:3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.Telephone:+44 (0)1344 858 000E Mail:tox.uk@mmm.comWebsite:www.3M.com/uk

1.4. Emergency telephone number +44 (0)1344 858 000

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.

The aspiration hazard classification is not required because the product is an aerosol.

CLASSIFICATION:

Aerosol, Category 1 - Aerosol 1; H222, H229 Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315 Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319 Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H336 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) |GHS09 (Environment) |

Pictograms



Ingredients: Ingredient	CAS Nbr	EC No.	% by Wt
acetone	67-64-1	200-662-2	10 - 30
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclic	S	927-510-4	7 - 13
Hydrocarbons, C6, isoalkanes, < 5% n- hexane		931-254-9	1 - 10

HAZARD STATEMENTS:

H222	Extremely flammable aerosol.
H229	Pressurised container. may burst if heated.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

PRECAUTIONARY STATE	MENTS
General:	
P102	Keep out of reach of children.
Prevention:	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P261E	Avoid breathing vapour or spray.
P273	Avoid release to the environment.
Storage:	
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50C/122F.

Disposal:

P501

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

11% of the mixture consists of components of unknown acute oral toxicity.

2.3. Other hazards

May displace oxygen and cause rapid suffocation.

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]
propane	(CAS-No.) 74-98-6 (EC-No.) 200-827-9	10 - 30	Liquified gas, H280 Nota U
acetone	(CAS-No.) 67-64-1 (EC-No.) 200-662-2	10 - 30	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066
2,6,6-Trimethylbicyclo[3.1.1]hept-2-ene, polymer with 6,6-dimethyl-2- methylenebicyclo[3.1.1]heptane	(CAS-No.) 31393-98-3	7 - 13	Aquatic Chronic 4, H413
Butadiene-styrene-meta-divinylbenzene polymer	(CAS-No.) 26471-45-4	7 - 13	Substance not classified as hazardous
butane	(CAS-No.) 106-97-8 (EC-No.) 203-448-7	< 13	Liquified gas, H280 Nota C,U
dimethyl ether	(CAS-No.) 115-10-6 (EC-No.) 204-065-8 (REACH-No.) 01- 2119472128-37	7 - 13	Liquified gas, H280 Nota U
isobutane	(CAS-No.) 75-28-5 (EC-No.) 200-857-2	< 13	Liquified gas, H280 Nota C,U
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	(EC-No.) 927-510-4 (REACH-No.) 01- 2119475515-33	7 - 13	Aquatic Chronic 2, H411 Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336
Glycerol ester of hydrogenated rosin	(CAS-No.) 65997-13-9 (EC-No.) 266-042-9	1 - 10	Substance with a national occupational exposure limit
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	(EC-No.) 931-254-9	1 - 10	Aquatic Chronic 2, H411 Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315

			STOT SE 3, H336
Hydrocarbons, C11-C13, isoalkanes,	(EC-No.) 920-901-0	1 - 5	Asp. Tox. 1, H304
<2% aromatics	(REACH-No.) 01-		EUH066
	2119456810-40		
pentane	(CAS-No.) 109-66-0	1 - 5	Flam. Liq. 2, H225
	(EC-No.) 203-692-4		Asp. Tox. 1, H304
	(REACH-No.) 01-		STOT SE 3, H336
	2119459286-30		EUH066
			Aquatic Chronic 2, H411
			Nota C
isopentane	(CAS-No.) 78-78-4	1 - 3	Flam. Liq. 1, H224
	(EC-No.) 201-142-8		Asp. Tox. 1, H304
			STOT SE 3, H336
			EUH066
			Aquatic Chronic 2, H411

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

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. 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

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. 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

The most important symptoms and effects based on the CLP classification include: Irritation to the skin (localized redness, swelling, itching, and dryness). Serious irritation to the eyes (significant redness, swelling, pain, tearing, and impaired vision). 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

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Use a fire fighting agent suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

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

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Aldehydes.	During combustion.
Hydrocarbons.	During combustion.
formaldehyde	During combustion.
Carbon monoxide	During 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.

6.3. Methods and material for containment and cleaning up

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. 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.

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

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. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. 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 contact with oxidising agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (eg. gloves, respirators...) as required.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store away from heat. Store away from acids. 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
butane	106-97-8	UK HSC	TWA:1450 mg/m ³ (600 ppm);STEL:1810 mg/m ³ (750 ppm)	
pentane	109-66-0	UK HSC	TWA:1800 mg/m ³ (600 ppm)	
dimethyl ether	115-10-6	UK HSC	TWA:766 mg/m ³ (400 ppm);STEL:958 mg/m ³ (500 ppm)	
Rosin	65997-13-9	UK HSC	TWA(as fume):0.05 mg/m ³ ;STEL(as fume):0.15 mg/m ³	Respiratory Sensitizer
acetone	67-64-1	UK HSC	TWA:1210 mg/m ³ (500 ppm);STEL:3620 mg/m ³ (1500 ppm)	
propane	74-98-6	UK HSC	Limit value not established:	asphyxiant
isopentane	78-78-4	UK HSC	TWA:1800 mg/m ³ (600 ppm)	
UK HSC : UK Health and Safety Commis TWA: Time-Weighted-Average STEL : Short Term Exposure Limit	sion			

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.

Derived no effect level (DNEL)

Ingredient	Degradation Product	Population	Human exposure pattern	DNEL
Hydrocarbons, C6, isoalkanes, < 5% n- hexane		Worker	Dermal, Long-term exposure (8 hours), Systemic effects	13,964 mg/kg bw/d
Hydrocarbons, C6, isoalkanes, < 5% n- hexane		Worker	Inhalation, Long-term exposure (8 hours), Systemic effects	5,306 mg/m ³
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics		Worker	Dermal, Long-term exposure (8 hours), Systemic effects	13,964 mg/kg bw/d
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics		Worker	Inhalation, Long-term exposure (8 hours), Systemic effects	5,306 mg/m ³
Hydrocarbons, C6, isoalkanes, < 5% n- hexane		Worker	Dermal, Long-term exposure (8 hours), Systemic effects	300 mg/kg bw/d
Hydrocarbons, C6,		Worker	Inhalation, Long-term	2,085 mg/m ³

isoalkanes, < 5% n-		exposure (8 hours),	
hexane		Systemic effects	
Hydrocarbons, C7, n-	Worker	Dermal, Long-term	300 mg/kg bw/d
alkanes, isoalkanes,		exposure (8 hours),	
cyclics		Systemic effects	
Hydrocarbons, C7, n-	Worker	Inhalation, Long-term	2,085 mg/m ³
alkanes, isoalkanes,		exposure (8 hours),	
cyclics		Systemic effects	
Hydrocarbons, C6,	Worker	Dermal, Long-term	300 mg/kg bw/d
isoalkanes, < 5% n-		exposure (8 hours),	
hexane		Systemic effects	
Hydrocarbons, C6,	Worker	Inhalation, Long-term	2,085 mg/m ³
isoalkanes, < 5% n-		exposure (8 hours),	_
hexane		Systemic effects	
Hydrocarbons, C7, n-	Worker	Dermal, Long-term	300 mg/kg bw/d
alkanes, isoalkanes,		exposure (8 hours),	
cyclics		Systemic effects	
Hydrocarbons, C7, n-	Worker	Inhalation, Long-term	2,085 mg/m ³
alkanes, isoalkanes,		exposure (8 hours),	-
cyclics		Systemic effects	

Predicted no effect concentrations (PNEC)

Ingredient	Degradation Product	Compartment	PNEC
Hydrocarbons, C6, isoalkanes, < 5% n- hexane		Agricultural soil	0.53 mg/kg d.w.
Hydrocarbons, C6, isoalkanes, < 5% n- hexane		Freshwater	0.096 mg/l
Hydrocarbons, C6, isoalkanes, < 5% n- hexane		Freshwater sediments	2.5 mg/kg d.w.
Hydrocarbons, C6, isoalkanes, < 5% n- hexane		Marine water	0.096 mg/l
Hydrocarbons, C6, isoalkanes, < 5% n- hexane		Marine water sediments	2.5 mg/kg d.w.
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics		Agricultural soil	0.53 mg/kg d.w.
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics		Freshwater	0.096 mg/l
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics		Freshwater sediments	2.5 mg/kg d.w.
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics		Marine water	0.096 mg/l
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics		Marine water sediments	2.5 mg/kg d.w.

Recommended monitoring procedures:Information on recommended monitoring procedures can be obtained from UK HSC

8.2. Exposure controls

In addition, refer to the annex for more information.

8.2.1. Engineering controls

Do not remain in area where available oxygen may be reduced. 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.

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:

Material	Thickness (mm)	Breakthrough Time
Polymer laminate	>.3	=>8 hours
Nitrile rubber.	>.3	1-4 hours

The glove data presented are based on the substance driving dermal toxicity and the conditions present at the time of testing. Breakthrough time may be altered when the glove is subjected to use conditions that place additional stress on the glove.

Applicable Norms/Standards Use gloves tested to EN 374

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 supplied-air respirator

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

8.2.3. Environmental exposure controls

Refer to Annex

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Specific Physical Form: Colour Odor Odour threshold Melting point/freezing point Liquid. Aerosol Transparent White Strong Ketones *No data available. Not applicable.*

Boiling point/boiling range Flammability (solid, gas) Flammable Limits(LEL) Flammable Limits(UEL) Flash point Autoignition temperature **Decomposition temperature** pН **Kinematic Viscosity** Water solubility Solubility- non-water Partition coefficient: n-octanol/water Vapour pressure Densitv **Relative density Relative Vapor Density**

Not applicable. Not applicable. No data available. No data available. -42 °C No data available. No data available. substance/mixture is non-soluble (in water) Not applicable. Nil No data available. No data available. No data available. 0.74 g/ml 0.74 [*Ref Std*:WATER=1] ≥ 1 [*Ref Std*:AIR=1]

9.2. Other information

9.2.2 Other safety characteristics
EU Volatile Organic Compounds
Evaporation rate
Percent volatile

No data available. No data available. 75 % weight

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

Sparks and/or flames. Heat.

10.5 Incompatible materials None known.

10.6 Hazardous decomposition products <u>Substance</u>

None known.

Condition

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

Simple asphyxiation: Signs/symptoms may include increased heart rate, rapid respirations, drowsiness, headache, incoordination, altered judgement, nausea, vomiting, lethargy, seizures, coma, and may be fatal. 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.

Eye contact

Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired 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. Single exposure, above recommended guidelines, may cause: Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

Reproductive/Developmental Toxicity:

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

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
propane	Inhalation- Gas (4 hours)	Rat	LC50 > 200,000 ppm
acetone	Dermal	Rabbit	LD50 > 15,688 mg/kg
acetone	Inhalation- Vapour (4 hours)	Rat	LC50 76 mg/l
acetone	Ingestion	Rat	LD50 5,800 mg/kg
isobutane	Inhalation- Gas (4 hours)	Rat	LC50 276,000 ppm
dimethyl ether	Inhalation-	Rat	LC50 164,000 ppm

3M DisplayMount Spray Adhesive

			1
	Gas (4		
	hours)	D 11.4	1.050 > 2.020 //
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Dermal	Rabbit Rabbit	LD50 > 2,920 mg/kg
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Dermal		LD50 > 3,160 mg/kg LD50 > 3,160 mg/kg
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Dermal Dermal	Rabbit	<u> </u>
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Inhalation-	Rat	LD50 > 2,000 mg/kg LC50 > 14.7 mg/l
Hydrocarbons, C7, n-aikanes, isoaikanes, cyclics	Vapour (4	Rat	LC30 > 14.7 mg/I
	hours)		
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Inhalation-	Rat	LC50 > 23.3 mg/l
Tydroedroons, C7, ir dikanes, isodikanes, cyches	Vapour (4	Rut	1000 × 20.5 mg/
	hours)		
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Inhalation-	Rat	LC50 > 5.61 mg/l
	Vapour (4		C C
	hours)		
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Ingestion	Rat	LD50 > 5,000 mg/kg
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
butane	Inhalation-	Rat	LC50 277,000 ppm
	Gas (4		
	hours)		
Butadiene-styrene-meta-divinylbenzene polymer	Dermal		LD50 estimated to be > 5,000 mg/kg
Butadiene-styrene-meta-divinylbenzene polymer	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
2,6,6-Trimethylbicyclo[3.1.1]hept-2-ene, polymer with 6,6- dimethyl-2-methylenebicyclo[3.1.1]heptane	Dermal		LD50 estimated to be $>$ 5,000 mg/kg
2,6,6-Trimethylbicyclo[3.1.1]hept-2-ene, polymer with 6,6- dimethyl-2-methylenebicyclo[3.1.1]heptane	Ingestion	Rat	LD50 > 34,000 mg/kg
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Dermal	Rabbit	LD50 > 2,920 mg/kg
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Dermal	Rabbit	LD50 > 3,160 mg/kg
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Dermal	Rabbit	LD50 > 3,160 mg/kg
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Dermal	Rat	LD50 > 2,000 mg/kg
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Inhalation-	Rat	LC50 > 14.7 mg/l
	Vapour (4		-
	hours)		
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Inhalation-	Rat	LC50 > 23.3 mg/l
	Vapour (4		
	hours)	-	
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Inhalation-	Rat	LC50 > 5.61 mg/l
	Vapour (4 hours)		
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Ingestion	Rat	LD50 > 5,000 mg/kg
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Ingestion	Rat	LD50 > 5,840 mg/kg
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Ingestion	Rat	LD50 > 5,000 mg/kg
Glycerol ester of hydrogenated rosin	Dermal	Rat	LD50 > 5,000 mg/kg
Glycerol ester of hydrogenated rosin	Ingestion	Rat	LD50 > 2,000 mg/kg
pentane	Dermal	Rabbit	LD50 > 2,000 mg/kg
pentane	Inhalation-	Rat	LC50 > 18 mg/l
pentane	Vapour (4	Nat	
	hours)		
pentane	Ingestion	Rat	LD50 > 2,000 mg/kg
isopentane	Dermal	Rabbit	LD50 3,000 mg/kg
isopentane	Inhalation-	Rat	LC50 > 18 mg/l
	Vapour (4		
	hours)		
isopentane	Ingestion	Rat	LD50 > 2,000 mg/kg
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	Inhalation-		LC50 estimated to be 20 - 50 mg/l
	Vapour		
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	Dermal	Rabbit	LD50 > 5,000 mg/kg LD50 > 5,000 mg/kg
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	Ingestion	Rat	

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value

propane	Rabbit	Minimal irritation
acetone	Mouse	Minimal irritation
isobutane	Professio	No significant irritation
	nal	
	judgemen	
	t	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Rabbit	Irritant
butane	Professio	No significant irritation
	nal	
	judgemen	
	t	
Butadiene-styrene-meta-divinylbenzene polymer	Professio	Minimal irritation
	nal	
	judgemen	
	t	
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Rabbit	Irritant
Glycerol ester of hydrogenated rosin	Rabbit	No significant irritation
pentane	Rabbit	Minimal irritation
isopentane	Rabbit	Minimal irritation
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	Rabbit	Minimal irritation

Serious Eye Damage/Irritation

Name	Species	Value
propane	Rabbit	Mild irritant
acetone	Rabbit	Severe irritant
isobutane	Professio	No significant irritation
	nal	
	judgemen	
	t	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Rabbit	No significant irritation
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Rabbit	Mild irritant
butane	Rabbit	No significant irritation
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Rabbit	No significant irritation
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Rabbit	Mild irritant
Glycerol ester of hydrogenated rosin	Rabbit	Mild irritant
pentane	Rabbit	Mild irritant
isopentane	Rabbit	Mild irritant
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	Rabbit	Mild irritant

Skin Sensitisation

Name	Species	Value
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Guinea pig	Not classified
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Guinea	Not classified
Glycerol ester of hydrogenated rosin	Human and animal	Not classified
pentane	Guinea pig	Not classified
isopentane	Guinea	Not classified
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	Guinea pig	Not classified

Respiratory Sensitisation

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

Germ Cell Mutagenicity

Name	Route	Value

propane	In Vitro	Not mutagenic		
acetone	In vivo	Not mutagenic		
acetone	In Vitro	Some positive data exist, but the data are not sufficient for classification		
isobutane	In Vitro	Not mutagenic		
dimethyl ether	In Vitro	Not mutagenic		
dimethyl ether	In vivo	Not mutagenic		
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	In Vitro	Not mutagenic		
butane	In Vitro	Not mutagenic		
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	In Vitro	Not mutagenic		
pentane	In vivo	Not mutagenic		
pentane	In Vitro	Some positive data exist, but the data are not sufficient for classification		
isopentane	In vivo	Not mutagenic		
isopentane	In Vitro	Some positive data exist, but the data are not sufficient for classification		
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	In Vitro	Not mutagenic		
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	In vivo	Not mutagenic		

Carcinogenicity

Name	Route	Species	Value
acetone	Not specified.	Multiple animal species	Not carcinogenic
dimethyl ether	Inhalation	Rat	Not carcinogenic
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	Not specified.	Not available	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
acetone	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,700 mg/kg/day	13 weeks
acetone	Inhalation	Not classified for development	Rat	NOAEL 5.2 mg/l	during organogenesis
dimethyl ether	Inhalation	Not classified for development	Rat	NOAEL 40,000 ppm	during organogenesis
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
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Not specified.	Not classified for female reproduction	Rat	NOAEL Not available	2 generation
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Not specified.	Not classified for male reproduction	Rat	NOAEL Not available	2 generation
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Not specified.	Not classified for development	Rat	NOAEL Not available	2 generation
pentane	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during organogenesis
pentane	Inhalation	Not classified for development	Rat	NOAEL 30 mg/l	during organogenesis
isopentane	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during organogenesis
isopentane	Inhalation	Not classified for development	Rat	NOAEL 30	during

				mg/l	organogenesis
Hydrocarbons, C11-C13, isoalkanes, <2%	Not	Not classified for female reproduction	Not	NOAEL NA	1 generation
aromatics	specified.		available		
Hydrocarbons, C11-C13, isoalkanes, <2%	Not	Not classified for male reproduction	Not	NOAEL NA	28 days
aromatics	specified.	-	available		-
Hydrocarbons, C11-C13, isoalkanes, <2%	Not	Not classified for development	Not	NOAEL NA	during
aromatics	specified.	_	available		gestation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
propane	Inhalation	cardiac sensitisation	Causes damage to organs	Human	NOAEL Not available	
propane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
propane	Inhalation	respiratory irritation	Not classified	Human	NOAEL Not available	
acetone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
acetone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
acetone	Inhalation	immune system	Not classified	Human	NOAEL 1.19 mg/l	6 hours
acetone	Inhalation	liver	Not classified	Guinea pig	NOAEL Not available	
acetone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
isobutane	Inhalation	cardiac sensitisation	Causes damage to organs	Multiple animal species	NOAEL Not available	
isobutane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
isobutane	Inhalation	respiratory irritation	Not classified	Mouse	NOAEL Not available	
dimethyl ether	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Rat	LOAEL 10,000 ppm	30 minutes
dimethyl ether	Inhalation	cardiac sensitisation	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 100,000 ppm	5 minutes
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	
butane	Inhalation	cardiac sensitisation	Causes damage to organs	Human	NOAEL Not available	
butane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
butane	Inhalation	heart	Not classified	Dog	NOAEL 5,000 ppm	25 minutes
butane	Inhalation	respiratory irritation	Not classified	Rabbit	NOAEL Not	

					available	
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	
pentane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	not available
pentane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL Not available	not available
pentane	Inhalation	cardiac sensitisation	Not classified	Dog	NOAEL Not available	not available
pentane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	not available
isopentane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	not available
isopentane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL Not available	not available
isopentane	Inhalation	cardiac sensitisation	Not classified	Dog	NOAEL Not available	not available
isopentane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	not available

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
acetone	Dermal	eyes	Not classified	Guinea pig	NOAEL Not available	3 weeks
acetone	Inhalation	hematopoietic system	Not classified	Human	NOAEL 3 mg/l	6 weeks
acetone	Inhalation	immune system	Not classified	Human	NOAEL 1.19 mg/l	6 days
acetone	Inhalation	kidney and/or bladder	Not classified	Guinea pig	NOAEL 119 mg/l	not available
acetone	Inhalation	heart liver	Not classified	Rat	NOAEL 45 mg/l	8 weeks
acetone	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 900 mg/kg/day	13 weeks
acetone	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
acetone	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 200 mg/kg/day	13 weeks
acetone	Ingestion	liver	Not classified	Mouse	NOAEL 3,896 mg/kg/day	14 days
acetone	Ingestion	eyes	Not classified	Rat	NOAEL 3,400 mg/kg/day	13 weeks

acetone	Ingestion	respiratory system	Not classified	Rat	NOAEL 2,500	13 weeks
acetone	Ingestion	muscles	Not classified	Rat	mg/kg/day NOAEL 2,500 mg/kg	13 weeks
acetone	Ingestion	skin bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 11,298 mg/kg/day	13 weeks
isobutane	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 4,500 ppm	13 weeks
dimethyl ether	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 25,000 ppm	2 years
dimethyl ether	Inhalation	liver	Not classified	Rat	NOAEL 20,000 ppm	30 weeks
butane	Inhalation	kidney and/or bladder blood	Not classified	Rat	NOAEL 4,489 ppm	90 days
pentane	Inhalation	peripheral nervous system	Not classified	Human	NOAEL Not available	occupational exposure
pentane	Inhalation	heart skin endocrine system gastrointestinal tract bone, teeth, nails, and/or hair hematopoietic system liver immune system muscles nervous system eyes kidney and/or bladder respiratory system	Not classified	Rat	NOAEL 20 mg/l	13 weeks
pentane	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 2,000 mg/kg/day	28 days
isopentane	Inhalation	peripheral nervous system	Not classified	Human	NOAEL Not available	occupational exposure
isopentane	Inhalation	heart skin endocrine system gastrointestinal tract bone, teeth, nails, and/or hair hematopoietic system liver immune system muscles nervous system eyes kidney and/or bladder respiratory system	Not classified	Rat	NOAEL 20 mg/l	13 weeks
isopentane	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 2,000 mg/kg/day	28 days

Aspiration Hazard

Name	Value
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Aspiration hazard
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	Aspiration hazard
pentane	Aspiration hazard
isopentane	Aspiration hazard
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	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	Туре	Exposure	Test endpoint	Test result
acetone	67-64-1	Algae other	Experimental	96 hours	EC50	11,493 mg/l
acetone	67-64-1	Crustacea other	Experimental	24 hours	LC50	2,100 mg/l
acetone	67-64-1	Rainbow trout	Experimental	96 hours	LC50	5,540 mg/l
acetone	67-64-1	Water flea	Experimental	21 days	NOEC	1,000 mg/l
acetone	67-64-1	Bacteria	Experimental	16 hours	NOEC	1,700 mg/l
acetone	67-64-1	Redworm	Experimental	48 hours	LC50	>100
propane	74-98-6		Data not available or insufficient for classification			N/A
2,6,6- Trimethylbicyclo[3.1.1] hept-2-ene, polymer with 6,6-dimethyl-2- methylenebicyclo[3.1.1]heptane	31393-98-3	Activated sludge	Experimental	3 hours	NOEC	1,000 mg/l
2,6,6- Trimethylbicyclo[3.1.1] hept-2-ene, polymer with 6,6-dimethyl-2- methylenebicyclo[3.1.1]heptane	31393-98-3	Water flea	Experimental	48 hours	No tox obs at lmt of water sol	>100 mg/l
2,6,6- Trimethylbicyclo[3.1.1] hept-2-ene, polymer with 6,6-dimethyl-2- methylenebicyclo[3.1.1]]heptane	31393-98-3	Water flea	Endpoint not reached	21 days	EL10	>100 mg/l
Butadiene-styrene- meta-divinylbenzene polymer	26471-45-4		Data not available or insufficient for classification			N/A
butane	106-97-8		Data not available or insufficient for classification			N/A
dimethyl ether	115-10-6	Bacteria	Experimental		EC10	>1,600 mg/l
dimethyl ether	115-10-6	Guppy	Experimental	96 hours	LC50	>4,100 mg/l
dimethyl ether	115-10-6	Water flea	Experimental	48 hours	EC50	>4,400 mg/l
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- alkanes, isoalkanes, cyclics	927-510-4	Green Algae	Estimated	72 hours	EL50	29 mg/l
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics	927-510-4	Green algae	Estimated	72 hours	EL50	55 mg/l
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics	927-510-4	Water flea	Estimated	48 hours	EL50	3 mg/l
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics	927-510-4	Water flea	Estimated	48 hours	EL50	4.5 mg/l
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics	927-510-4	Water flea	Estimated	48 hours	LC50	3.9 mg/l
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	Green Algae	Estimated	72 hours	NOEL	30 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
isobutane	75-28-5		Data not available or insufficient for classification			N/A
Glycerol ester of hydrogenated rosin	65997-13-9	Green algae	Estimated	72 hours	No tox obs at lmt of water sol	>100 mg/l
Glycerol ester of hydrogenated rosin	65997-13-9	Rainbow trout	Estimated	96 hours	No tox obs at lmt of water sol	>100 mg/l
Glycerol ester of hydrogenated rosin	65997-13-9	Water flea	Estimated	48 hours	No tox obs at lmt of water sol	>100 mg/l
Glycerol ester of hydrogenated rosin	65997-13-9	Green Algae	Estimated	72 hours	No tox obs at lmt of water sol	>100 mg/l
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Fathead minnow	Estimated	96 hours	LL50	8.2 mg/l
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Green Algae	Estimated	72 hours	EL50	3.1 mg/l
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Green Algae	Estimated	72 hours	EL50	29 mg/l
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Green algae	Estimated	72 hours	EL50	55 mg/l
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Water flea	Estimated	48 hours	EL50	3 mg/l
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Water flea	Estimated	48 hours	EL50	4.5 mg/l

Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Water flea	Estimated	48 hours	LC50	3.9 mg/l
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Rainbow trout	Experimental	96 hours	LL50	>13.4 mg/l
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9		Data not available or insufficient for classification			N/A
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Green Algae	Estimated	72 hours	NOEL	0.5 mg/l
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Green Algae	Estimated	72 hours	NOEL	6.3 mg/l
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Green Algae	Estimated	72 hours	NOEL	30 mg/l
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Water flea	Estimated	21 days	NOEL	1 mg/l
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Water flea	Estimated	21 days	NOEL	2.6 mg/l
Hydrocarbons, C11- C13, isoalkanes, <2% aromatics	920-901-0	Green Algae	Estimated	72 hours	EL50	>1,000 mg/l
Hydrocarbons, C11- C13, isoalkanes, <2% aromatics	920-901-0	Rainbow trout	Estimated	96 hours	LL50	>1,000 mg/l
Hydrocarbons, C11- C13, isoalkanes, <2% aromatics	920-901-0	Water flea	Estimated	48 hours	EL50	>1,000 mg/l
Hydrocarbons, C11- C13, isoalkanes, <2% aromatics	920-901-0	Green Algae	Estimated	72 hours	NOEL	1,000 mg/l
pentane	109-66-0	Green Algae	Experimental	72 hours	EC50	10.7 mg/l
pentane	109-66-0	Rainbow trout	Experimental	96 hours	LC50	4.26 mg/l
pentane	109-66-0	Water flea	Experimental	48 hours	EC50	2.7 mg/l
pentane	109-66-0	Green Algae	Experimental	72 hours	NOEC	2.04 mg/l
isopentane	78-78-4		Data not available or insufficient for classification			N/A

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
acetone	67-64-1	Experimental Photolysis		Photolytic half-life (in air)	147 days (t 1/2)	
acetone	67-64-1	Experimental Biodegradation	28 days	BOD	78 % BOD/ThBOD	OECD 301D - Closed bottle test
propane	74-98-6	Experimental Photolysis		Photolytic half-life (in air)	27.5 days (t 1/2)	Non-standard method
2,6,6- Trimethylbicyclo[3.1.1]hept -2-ene, polymer with 6,6- dimethyl-2- methylenebicyclo[3.1.1]hep tane		Experimental Biodegradation	28 days	BOD	4 % BOD/ThBOD	OECD 301D - Closed bottle test
Butadiene-styrene-meta- divinylbenzene polymer	26471-45-4	Data not availbl- insufficient			N/A	
butane	106-97-8	Experimental Photolysis		Photolytic half-life (in air)	12.3 days (t 1/2)	Non-standard method

dimethyl ether	115-10-6	Experimental Photolysis		Photolytic half-life (in air)	12.4 days (t 1/2)	Non-standard method
dimethyl ether	115-10-6	Experimental Biodegradation	28 days	BOD	5 % weight	OECD 301D - Closed bottle test
Hydrocarbons, C7, n-	927-510-4	Estimated	28 days	BOD	98 %BOD/CO	OECD 301F - Manometric
alkanes, isoalkanes, cyclics		Biodegradation			D	respirometry
Hydrocarbons, C7, n-	927-510-4	Data not availbl-			N/A	
alkanes, isoalkanes, cyclics		insufficient				
Hydrocarbons, C7, n-	927-510-4	Estimated	28 days	BOD	98 %BOD/CO	OECD 301F - Manometric
alkanes, isoalkanes, cyclics		Biodegradation			D	respirometry
Hydrocarbons, C7, n-	927-510-4	Estimated	28 days	BOD	77 %	OECD 301F - Manometric
alkanes, isoalkanes, cyclics		Biodegradation			BOD/ThBOD	respirometry
isobutane	75-28-5	Experimental Photolysis		Photolytic half-life (in air)	13.4 days (t 1/2)	Non-standard method
Glycerol ester of hydrogenated rosin	65997-13-9	Experimental Biodegradation	28 days	CO2 evolution	47.3 %CO2 evolution/THC O2 evolution	OECD 301B - Modified sturm or CO2
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Estimated Biodegradation	28 days	BOD	98 %BOD/CO D	OECD 301F - Manometric respirometry
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Data not availbl- insufficient			N/A	
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Estimated Biodegradation	28 days	BOD	98 %BOD/CO D	OECD 301F - Manometric respirometry
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Estimated Biodegradation	28 days	BOD	77 % BOD/ThBOD	OECD 301F - Manometric respirometry
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	920-901-0	Estimated Biodegradation	28 days	BOD	31.3 % BOD/ThBOD	OECD 301F - Manometric respirometry
pentane	109-66-0	Experimental Photolysis		Photolytic half-life (in air)	8.07 days (t 1/2)	Non-standard method
pentane	109-66-0	Experimental Biodegradation	28 days	BOD	87 % BOD/ThBOD	OECD 301F - Manometric respirometry
isopentane	78-78-4	Experimental Photolysis		Photolytic half-life (in air)	8.11 days (t 1/2)	Non-standard method
isopentane	78-78-4	Experimental Biodegradation	28 days	BOD	71.43 % BOD/ThBOD	Non-standard method

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
acetone	67-64-1	Experimental BCF - Other		Bioaccumulation factor	0.65	
acetone	67-64-1	Experimental Bioconcentration		Log Kow	-0.24	
propane	74-98-6	Experimental Bioconcentration		Log Kow	2.36	Non-standard method
2,6,6- Trimethylbicyclo[3.1.1]hep t-2-ene, polymer with 6,6- dimethyl-2- methylenebicyclo[3.1.1]he ptane	31393-98-3	Experimental Bioconcentration		Log Kow	7.41	Non-standard method
Butadiene-styrene-meta- divinylbenzene polymer	26471-45-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
butane	106-97-8	Experimental Bioconcentration		Log Kow	2.89	Non-standard method
dimethyl ether	115-10-6	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
Hydrocarbons, C7, n-	927-510-4	Data not available	N/A	N/A	N/A	N/A

alkanes, isoalkanes, cyclics		or insufficient for classification				
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics	927-510-4	Estimated Bioconcentration		Log Kow	3.6	Non-standard method
isobutane	75-28-5	Experimental Bioconcentration		Log Kow	2.76	Non-standard method
Glycerol ester of hydrogenated rosin	65997-13-9	Estimated Bioconcentration		Bioaccumulation factor	7.4	Estimated: Bioconcentration factor
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydrocarbons, C6, isoalkanes, < 5% n- hexane	931-254-9	Estimated Bioconcentration		Log Kow	3.6	Non-standard method
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	920-901-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
pentane	109-66-0	Estimated Bioconcentration		Bioaccumulation factor	26	Estimated: Bioconcentration factor
isopentane	78-78-4	Experimental Bioconcentration		Log Kow	2.3	Non-standard method

12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
acetone	67-64-1	Modeled Mobility in Soil	Koc	9.7 l/kg	Episuite TM
pentane	109-66-0	Estimated Mobility in Soil	Koc	72 l/kg	Episuite™

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. Facility must be capable of handling aerosol cans. As a disposal alternative, utilize an acceptable permitted waste disposal facility. The facility should be equipped to handle gaseous waste. 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)

16 05 04*Gases in pressure containers (including halons) containing dangerous substances20 01 27*Paint, inks, adhesives and resins containing dangerous substances

EU waste code (product container after use)

15 01 04 Metallic packaging

SECTION 14: Transportation information

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 UN number	UN1950	UN1950	UN1950
14.2 UN proper shipping name	AEROSOLS	AEROSOLS, FLAMMABLE	AEROSOLS
14.3 Transport hazard class(es)	2.1	2.1	2.1
14.4 Packing group	Not applicable.	Not applicable.	Not applicable.
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	5F	Not applicable.	Not applicable.
ADR Transport Category	2	Not applicable.	Not applicable.

ADR Multiplier	0	0	0
IMDG Segregation Code	Not applicable.	Not applicable.	NONE

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

Global inventory status

Contact 3M for more information.

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out for this mixture. Chemical safety assessments for the contained substances may have been carried out by the registrants of the substances 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.
H222	Extremely flammable aerosol.
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H229	Pressurised container. may burst if heated.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Revision information:

EU Section 09: pH information information was added.

Professional Use of Coatings: Section 16: Annex information was modified.

CLP: Ingredient table information was modified.

CLP Remark(phrase) information was deleted.

Label: CLP Classification information was modified.

Label: CLP Environmental Hazard Statements information was modified.

Label: CLP Percent Unknown information was deleted.

Label: CLP Precautionary - Prevention information was modified.

Label: Graphic information was modified.

Section 2: Other hazards phrase information was modified.

Section 03: Composition table % Column heading information was added. Section 3: Composition/Information of ingredients table information was modified. 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 6: Accidental release clean-up information information was modified. Section 6: Accidental release environmental information information was modified. Section 7: Conditions safe storage information was modified. Section 8: DNEL table row information was modified. Section 8: glove data value information was added. Section 8: glove data value information was modified. Section 8: Occupational exposure limit table information was modified. Section 8: PNEC table row information was modified. Section 9: Evaporation Rate information information was deleted. Section 9: Explosive properties information information was deleted. 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: Vapour density value information was added. Section 9: Vapour density value information was deleted. Section 9: Viscosity information information was deleted. Section 11: Acute Toxicity table information was modified. Section 11: Aspiration Hazard Table information was modified. Section 11: Carcinogenicity 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 Hazards information information was deleted. Section 11: Reproductive Toxicity Table information was modified. Section 11: Reproductive/developmental effects information information was added. Section 11: Serious Eye Damage/Irritation Table information was modified. Section 11: Single exposure may cause standard phrases 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: Mobility in soil information information was added. Prints No Data if Adverse effects information is not present 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 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.

Section 15: Regulations - Inventories information was added.

Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was modified.

Annex

1. Title	
Substance identification	
Exposure Scenario Name	Professional Use of Coatings
Lifecycle Stage	Widespread use by professional workers
Contributing activities	PROC 11 -Non industrial spraying
	ERC 08a -Widespread use of non-reactive processing aid (no inclusion into or
	onto article, indoor)
Processes, tasks and activities covered	Application of product. Spraying of substances/mixtures.
2. Operational conditions and risk mana	agement measures
Operating Conditions	Physical state:Liquid.
	General operating conditions:
	Assumes use at not more than 20°C above ambient temperature;
	Duration of exposure per day at workplace [for one worker]: 8 hours/day;
	Emission days per year: 365 days/year;
	Indoor use;
	Outdoor use;
Risk management measures	Under the operational conditions described above the following risk management
-	measures apply:
	General risk management measures:
	Human health:
	None needed;
	Environmental:
	None needed;
Waste management measures	No use-specific waste management measures are required for this product. Refer
	to Section 13 of main SDS for disposal instructions:
3. Prediction of exposure	
Prediction of exposure	Human and environmental exposures are not expected to exceed the DNELs and
	PNECs when the identified risk management measures are adopted.

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 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. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into the European Union, you are responsible for all regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration.

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