

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 SprayMount Adhesive.

Product Identification Numbers

GT-5000-6935-3 UU-0015-2889-0 UU-0015-7905-9 YP-2080-6050-6 Y

YP-2080-6054-8

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 substance or mixture

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

CLASSIFICATION:

Aerosol, Category 1 - Aerosol 1; H222, H229 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.

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive Indication of danger

Extremely flammable; F+; R12 Irritant; Xi; R36 R66 R67 Dangerous for the environment; N; R51/53

For full text of R 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



Ingredient		CAS Nbr	% by Wt
Acetone		67-64-1	25 - 40
HAZARD STATEMENTS:			
H222	Extremely flammable aerosol.		
H229	Pressurised container. may burst if heated	d.	
H319	Causes serious eye irritation.		
H336	May cause drowsiness or dizziness.		
H411	Toxic to aquatic life with long lasting eff	fects.	
PRECAUTIONARY STATEME	NTS		
General:			
P102	Keep out of reach of children.		
P101	If medical advice is needed, have produc	t container or label at ha	nd.
Prevention:			
P210A	Keep away from heat, hot surfaces, spark	ks, open flames and other	ignition sources. No smoking.
P211	Do not spray on an open flame or other is	gnition source.	
P251	Do not pierce or burn, even after use.		
P261	Avoid breathing dust/fume/gas/mist/vapo		
P271	Use only outdoors or in a well-ventilated	area.	
P273	Avoid release to the environment.		
Response:			
P305 + P351 + P338	IF IN EYES: Rinse cautiously with wate and easy to do. Continue rinsing.	er for several minutes. R	emove contact lenses, if present
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.

SUPPLEMENTAL INFORMATION

Supplemental Hazard Statements:

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EUH066
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Repeated exposure may cause skin dryness or cracking.

16% of the mixture consists of components of unknown acute oral toxicity.

Contains 16% of components with unknown hazards to the aquatic environment.

Notes on labelling

H304 is not required on the label because the product is an aerosol. "Heptane and Isomers" has a generic classification of GHS02, GHS08, GHS09; H304-316-336-410. "Hexane and Isomers" has a generic classification of GHS02, GHS08, GHS09; H304-316-336-411.

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive



Extremely



Extremely Flammable

for the environment

Contains:

No ingredients are assigned to the label.

Irritant

Risk phrases	
R12	Extremely flammable.
R36	Irritating to eyes.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.
R51/53	Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
Safety phrases	
S16	Keep away from sources of ignition - No Smoking.
S23C	Do not breathe vapour or spray.
S51	Use only in well ventilated areas.
S24	Avoid contact with skin.
S29	Do not empty into drains.
S61	Avoid release to the environment. Refer to special instructions/safety data sheets.

S2 Keep out of the reach of children.

Special provisions concerning the labelling of certain substances

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material.

Notes on labelling

R65 is not required on the label because the product is an aerosol.

"Heptane and Isomers" has a generic classification of F, Xn, N; R65-38-67-R50/53. "Hexane and Isomers" has a generic classification of F, Xn, N; R65-38-67-R51/53.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EU Inventory	% by Wt	Classification
Acetone	67-64-1	EINECS 200-	25 - 40	F:R11; Xi:R36; R66; R67 (EU)
		662-2		Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336; EUH066 (CLP)
Propane	74-98-6	EINECS 200- 827-9	10 - 20	F+:R12 (EU)
				Flam. Gas 1, H220; Liquified gas, H280 - Nota U (CLP)
Butane	106-97-8	EINECS 203- 448-7	10 - 20	F+:R12 - Nota C (EU)
				Flam. Gas 1, H220; Liquified gas, H280 - Nota C,U (CLP)
Non-volatiles	Trade Secret		7 - 13	
Heptane & isomers	None		5 - 10	
Hexane, mixture of isomers	None		5 - 10	
Isobutane	75-28-5	EINECS 200- 857-2	5 - 10	F+:R12 - Nota C (EU)
				Flam. Gas 1, H220; Liquified gas, H280 - Nota C,U (CLP)
Methylcyclohexane	108-87-2	EINECS 203- 624-3	1 - 5	F:R11; Xn:R65; Xi:R38; N:R51/53; R67 - Nota 4 (EU)
				Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Chronic 2, H411 (CLP)
				Aquatic Acute 1, H400,M=1 (Self Classified)
Pentane	109-66-0	EINECS 203- 692-4	1 - 5	F+:R12; Xn:R65; N:R51/53; R66; R67 - Nota 4,C (EU)
				Flam. Liq. 2, H225; Asp. Tox. 1, H304; STOT SE 3, H336; EUH066; Aquatic Chronic 2, H411 - Nota C (CLP)
2-methylbutane	78-78-4	EINECS 201- 142-8	0.5 - 2.0	F+:R12; Xn:R65; N:R51/53; R66; R67 - Nota 4,C (EU)
				Flam. Liq. 1, H224; Asp. Tox. 1, H304; STOT SE 3, H336; EUH066; Aquatic Chronic 2, H411 (CLP)
Cyclopentane	287-92-3	EINECS 206-	0.5 - 1.5	F:R11; R52/53 (EU)

		016-6		
				Flam. Liq. 2, H225; Aquatic
				Chronic 3, H412 (CLP)
n-hexane	110-54-3	EINECS 203-	0.1 - 1.0	Repr.Cat.3:R62; F:R11;
		777-6		Xn:R48/20; Xn:R65; Xi:R38;
				N:R51/53; R67 - Nota 4 (EU)
				Flam. Liq. 2, H225; Asp. Tox. 1,
				H304; Skin Irrit. 2, H315; Repr.
				2, H361f; STOT SE 3, H336;
				STOT RE 2, H373; Aquatic
				Chronic 2, H411 (CLP)

Please see section 16 for the full text of any R phrases and H statements referred to in this section Please refer to section 15 for the any applicable Notas that have been applied to the above components

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

Wash with soap and water. 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

See Section 11.1 Information on toxicological effects

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.
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.

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. 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. An appropriate aqueous film forming foam (AFFF) is recommended. 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. Collect the resulting residue containing solution. 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 release to the environment. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (eg. gloves, respirators...) as required. Vapours may travel long distances along the ground or floor to an ignition source and flash back.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. 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/m3(750	
			ppm)	
Pentane	109-66-0	UK HSC	TWA:1800 mg/m ³ (600 ppm)	
n-hexane	110-54-3	UK HSC	TWA:72 mg/m3(20 ppm)	
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
2-methylbutane	78-78-4	UK HSC	TWA:1800 mg/m ³ (600 ppm)	
UK HSC : UK Health and Safety Con	nmission			
TWA: Time-Weighted-Average				

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.

8.2. Exposure controls

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.

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.

Gloves made from the following material(s) are recommended: Butyl rubber. 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 Half facepiece or full facepiece supplied-air respirator

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

SECTION 9: Physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Aerosol
Appearance/Odour	Transparent- white liquid in Aerosol; Strong ketone odou
Odour threshold	No data available.
рН	Not applicable.
Boiling point/boiling range	Not applicable.
Melting point	Not applicable.
Flammability (solid, gas)	Not applicable.
Explosive properties	Not classified
Oxidising properties	Not classified
Flash point	-46 °C
Autoignition temperature	No data available.
Flammable Limits(LEL)	No data available.
Flammable Limits(UEL)	No data available.
Vapour pressure	No data available.
Relative density	0.706 [<i>Ref Std</i> :WATER=1]
Water solubility	Negligible
Solubility- non-water	No data available.
Partition coefficient: n-octanol/water	No data available.
Evaporation rate	No data available.
Vapour density	≥ 1 [<i>Ref Std</i> :AIR=1]
Decomposition temperature	No data available.
Viscosity	Not applicable.
Density	0.706 g/ml

9.2. Other information Percent volatile

88.5 % 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 3M assessments.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

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

Inhalation

Intentional concentration and inhalation may be harmful or fatal. 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 target organ effects after inhalation.

Skin contact

Contact with the skin during product use is not expected to result in significant irritation. Prolonged or repeated exposure may cause: Dermal Defatting: Signs/symptoms may include localised redness, itching, drying and cracking of skin.

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 target organ effects after ingestion.

Target Organ Effects:

Single exposure may cause:

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 sensitisation: 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	Ingestion		No data available; calculated ATE >5,000 mg/kg
Acetone	Dermal	Rabbit	LD50 > 15,688 mg/kg
Acetone	Inhalation-	Rat	LC50 76 mg/l
	Vapor (4		
	hours)		
Acetone	Ingestion	Rat	LD50 5,800 mg/kg
Propane	Inhalation-	Rat	LC50 > 200,000 ppm

	Gas (4		
	hours)		
Butane	Inhalation-	Rat	LC50 277,000 ppm
	Gas (4		
	hours)		
Isobutane	Inhalation-	Rat	LC50 276,000 ppm
	Gas (4		
	hours)		
Pentane	Dermal	Rabbit	LD50 3,000 mg/kg
Pentane	Inhalation-	Rat	LC50 > 18 mg/l
	Vapor (4		
	hours)		
Pentane	Ingestion	Rat	LD50 > 2,000 mg/kg
Non-volatiles	Dermal		LD50 estimated to be $> 5,000 \text{ mg/kg}$
Non-volatiles	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
2-methylbutane	Dermal	Rabbit	LD50 3,000 mg/kg
2-methylbutane	Inhalation-	Rat	LC50 > 18 mg/l
	Vapor (4		
	hours)		
2-methylbutane	Ingestion	Rat	LD50 > 2,000 mg/kg
Methylcyclohexane	Inhalation-	Mouse	LC50 26 mg/l
	Vapor (4		
	hours)		
Methylcyclohexane	Dermal	Rabbit	LD50 > 86,700 mg/kg
Methylcyclohexane	Ingestion	Rat	LD50 > 3,200 mg/kg
Cyclopentane	Inhalation-	Rat	LC50 > 25.3 mg/l
	Vapor (4		
	hours)		
Cyclopentane	Ingestion	Rat	LD50 > 5,000 mg/kg
n-hexane	Dermal	Rabbit	LD50 > 2,000 mg/kg
n-hexane	Inhalation-	Rat	LC50 170 mg/l
	Vapor (4		
	hours)		
n-hexane	Ingestion	Rat	LD50 > 28,700 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Acetone	Mouse	Minimal irritation
Propane	Rabbit	Minimal irritation
Butane	Professio	No significant irritation
	nal	
	judgemen	
	t	
Isobutane	Professio	No significant irritation
	nal	
	judgemen	
	t	
Pentane	Rabbit	Minimal irritation
Non-volatiles	Professio	No significant irritation
	nal	
	judgemen	
	t	
2-methylbutane	Rabbit	Minimal irritation
Methylcyclohexane	Rabbit	Minimal irritation
Cyclopentane	Rabbit	Minimal irritation
n-hexane	Human	Mild irritant
	and	
	animal	

Serious Eye Damage/Irritation

Name	Species	Value
Acetone	Rabbit	Severe irritant
Propane	Rabbit	Mild irritant
Butane	Rabbit	No significant irritation
Isobutane	Professio	No significant irritation
	nal	

	judgemen t	
Pentane	Rabbit	Mild irritant
2-methylbutane	Rabbit	Mild irritant
Methylcyclohexane	Rabbit	Mild irritant
Cyclopentane	Rabbit	Mild irritant
n-hexane	Rabbit	Mild irritant

Skin Sensitisation

Name	Species	Value
Pentane	Guinea	Not sensitizing
	pig	
Non-volatiles	Professio	Not sensitizing
	nal	
	judgemen	
	t	
2-methylbutane	Guinea	Not sensitizing
	pig	
n-hexane	Human	Not sensitizing

Respiratory Sensitisation

Name Species Value

Germ Cell Mutagenicity

Name	Route	Value
Acetone	In vivo	Not mutagenic
Acetone	In Vitro	Some positive data exist, but the data are not sufficient for classification
Propane	In Vitro	Not mutagenic
Butane	In Vitro	Not mutagenic
Isobutane	In Vitro	Not mutagenic
Pentane	In vivo	Not mutagenic
Pentane	In Vitro	Some positive data exist, but the data are not sufficient for classification
2-methylbutane	In vivo	Not mutagenic
2-methylbutane	In Vitro	Some positive data exist, but the data are not sufficient for classification
n-hexane	In Vitro	Not mutagenic
n-hexane	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Acetone	Not	Multiple	Not carcinogenic
	specified.	animal	-
		species	
Methylcyclohexane	Inhalation	Multiple	Not carcinogenic
		animal	-
		species	
n-hexane	Dermal	Mouse	Not carcinogenic
n-hexane	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
Acetone	Ingestion	Not toxic to female reproduction	Mouse	NOAEL	13 weeks
				11,298	
				mg/kg/day	
Acetone	Ingestion	Some positive male reproductive data	Rat	NOAEL	13 weeks
	-	exist, but the data are not sufficient for		1,700	
		classification		mg/kg/day	
Acetone	Inhalation	Some positive developmental data exist,	Rat	NOAEL 5.2	during
		but the data are not sufficient for		mg/l	organogenesis

		classification			
Pentane	Inhalation	Not toxic to female reproduction	Rat	NOAEL 20 mg/l	13 weeks
Pentane	Inhalation	Not toxic to male reproduction	Rat	NOAEL 20 mg/l	13 weeks
Pentane	Ingestion	Not toxic to development	Rat	NOAEL 1,000 mg/kg/day	during organogenesis
Pentane	Inhalation	Not toxic to development	Rat	NOAEL 30 mg/l	during organogenesis
2-methylbutane	Inhalation	Not toxic to female reproduction	Rat	NOAEL 20 mg/l	13 weeks
2-methylbutane	Inhalation	Not toxic to male reproduction	Rat	NOAEL 20 mg/l	13 weeks
2-methylbutane	Ingestion	Not toxic to development	Rat	NOAEL 1,000 mg/kg/day	during organogenesis
2-methylbutane	Inhalation	Not toxic to development	Rat	NOAEL 30 mg/l	during organogenesis
n-hexane	Ingestion	Not toxic to development	Mouse	NOAEL 2,200 mg/kg/day	during organogenesis
n-hexane	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 0.7 mg/l	during gestation
n-hexane	Ingestion	Toxic to male reproduction	Rat	NOAEL 1,140 mg/kg/day	90 days
n-hexane	Inhalation	Toxic to male reproduction	Rat	LOAEL 3.52 mg/l	28 days

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
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	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL 1.19 mg/l	6 hours
Acetone	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Guinea pig	NOAEL Not available	
Acetone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
Propane	Inhalation	cardiac sensitization	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	All data are negative	Human	NOAEL Not available	
Butane	Inhalation	cardiac sensitization	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	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 5,000 ppm	25 minutes
Butane	Inhalation	respiratory irritation	All data are negative	Rabbit	NOAEL Not available	
Isobutane	Inhalation	cardiac sensitization	Causes damage to organs	Multiple animal	NOAEL Not available	

				species		
Isobutane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Isobutane	Inhalation	respiratory irritation	All data are negative	Mouse	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 sensitization	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL Not available	not available
2-methylbutane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	not available
2-methylbutane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL Not available	not available
2-methylbutane	Inhalation	cardiac sensitization	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL Not available	not available
Methylcyclohexane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	
Methylcyclohexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Cyclopentane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	similar compoun ds	NOAEL Not available	
n-hexane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	not available
n-hexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Rabbit	NOAEL Not available	8 hours
n-hexane	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 24.6 mg/l	8 hours

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Acetone	Dermal	eyes	Some positive data exist, but the data are not sufficient for classification	Guinea pig	NOAEL Not available	3 weeks
Acetone	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL 3 mg/l	6 weeks
Acetone	Inhalation	immune system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL 1.19 mg/l	6 days
Acetone	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Guinea pig	NOAEL 119 mg/l	not available
Acetone	Inhalation	heart liver	All data are negative	Rat	NOAEL 45 mg/l	8 weeks
Acetone	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 900 mg/kg/day	13 weeks
Acetone	Ingestion	heart	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Acetone	Ingestion	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 200 mg/kg/day	13 weeks

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Acetone	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 3,896 mg/kg/day	14 days
Acetone	Ingestion	eyes	All data are negative	Rat	NOAEL 3,400 mg/kg/day	13 weeks
Acetone	Ingestion	respiratory system	All data are negative	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Acetone	Ingestion	muscles	All data are negative	Rat	NOAEL 2,500 mg/kg	13 weeks
Acetone	Ingestion	skin bone, teeth, nails, and/or hair	All data are negative	Mouse	NOAEL 11,298 mg/kg/day	13 weeks
Butane	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 4,489 ppm	90 days
Butane	Inhalation	blood	All data are negative	Rat	NOAEL 4,489 ppm	90 days
Isobutane	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 4,500 ppm	13 weeks
Pentane	Inhalation	peripheral nervous system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Pentane	Inhalation	heart skin endocrine system bone, teeth, nails, and/or hair hematopoietic system liver immune system muscles nervous system eyes kidney and/or bladder respiratory system	All data are negative	Rat	NOAEL 20 mg/l	13 weeks
Pentane	Ingestion	kidney and/or bladder	All data are negative	Rat	NOAEL 2,000 mg/kg/day	28 days
2-methylbutane	Inhalation	peripheral nervous system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
2-methylbutane	Inhalation	heart skin endocrine system bone, teeth, nails, and/or hair hematopoietic system liver immune system muscles nervous system eyes kidney and/or bladder respiratory system	All data are negative	Rat	NOAEL 20 mg/l	13 weeks
2-methylbutane	Ingestion	kidney and/or bladder	All data are negative	Rat	NOAEL 2,000 mg/kg/day	28 days
Methylcyclohexane	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.6 mg/l	12 months
Methylcyclohexane	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rabbit	NOAEL 12 mg/l	10 weeks
n-hexane	Inhalation	peripheral nervous system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
n-hexane	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Mouse	LOAEL 1.76 mg/l	13 weeks

n-hexane	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	6 months
n-hexane	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 1.76 mg/l	6 months
n-hexane	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 35.2 mg/l	13 weeks
n-hexane	Inhalation	auditory system immune system eyes	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
n-hexane	Inhalation	heart skin endocrine system	All data are negative	Rat	NOAEL 1.76 mg/l	6 months
n-hexane	Ingestion	peripheral nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,140 mg/kg/day	90 days
n-hexane	Ingestion	endocrine system hematopoietic system liver immune system kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	13 weeks

Aspiration Hazard

Name	Value
Pentane	Aspiration hazard
2-methylbutane	Aspiration hazard
Methylcyclohexane	Aspiration hazard
Cyclopentane	Aspiration hazard
n-hexane	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.

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 Nbr	Organism	Туре	Exposure	Test endpoint	Test result
Acetone	67-64-1	Water flea	Experimental	48 hours	EC50	13,500 mg/l
Acetone	67-64-1	Rainbow trout	Experimental	96 hours	LC50	5,540 mg/l
Acetone	67-64-1	Algae other	Experimental	96 hours	EC50	11,493 mg/l
Cyclopentane	287-92-3	Water flea	Experimental	48 hours	EC50	10.5 mg/l
n-hexane	110-54-3	Fathead minnow	Experimental	96 hours	LC50	2.5 mg/l
n-hexane	110-54-3	Water flea	Experimental	48 hours	EC50	>3.9 mg/l
Methylcyclohe xane	108-87-2	Green Algae	Experimental	72 hours	EC50	0.34 mg/l
Methylcyclohe xane	108-87-2	Water flea	Experimental	48 hours	EC50	0.33 mg/l
Methylcyclohe xane	108-87-2	Ricefish	Experimental	96 hours	LC50	2.1 mg/l

Pentane	109-66-0	Green Algae	Experimental	72 hours	EC50	7.51 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
Acetone	67-64-1	Water flea	Experimental	21 days	NOEC	1,000 mg/l
Methylcyclohe xane	108-87-2	Green Algae	Experimental	72 hours	NOEC	0.067 mg/l
Pentane	109-66-0	Green Algae	Experimental	72 hours	NOEC	2.04 mg/l
Non-volatiles	Trade Secret		Data not available or insufficient for classification			
Butane	106-97-8		Data not available or insufficient for classification			
Isobutane	75-28-5		Data not available or insufficient for classification			
2- methylbutane	78-78-4		Data not available or insufficient for classification			
Propane	74-98-6		Data not available or insufficient for classification			

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Acetone	67-64-1	Estimated		Photolytic half-	80 days (t 1/2)	Other methods
		Photolysis		life (in air)		
Cyclopentane	287-92-3	Experimental		Photolytic half-	6.11 days (t	Other methods
		Photolysis		life (in air)	1/2)	
Propane	74-98-6	Experimental		Photolytic half-	27.5 days (t	Other methods
		Photolysis		life (in air)	1/2)	
Acetone	67-64-1	Experimental		Photolytic half-	147 days (t	Other methods
		Photolysis		life (in air)	1/2)	
Pentane	109-66-0	Experimental		Photolytic half-	8.07 days (t	Other methods
		Photolysis		life (in air)	1/2)	
Butane	106-97-8	Experimental		Photolytic half-	12.3 days (t	Other methods
		Photolysis		life (in air)	1/2)	
Methylcyclohe	108-87-2	Experimental		Photolytic half-	3 days (t 1/2)	Other methods
xane		Photolysis		life (in air)		
2-	78-78-4	Experimental		Photolytic half-	8.11 days (t	Other methods
methylbutane		Photolysis		life (in air)	1/2)	
n-hexane	110-54-3	Experimental		Photolytic half-	5.4 days (t 1/2)	Other methods
		Photolysis		life (in air)		
Isobutane	75-28-5	Experimental		Photolytic half-	13.7 days (t	Other methods
		Photolysis		life (in air)	1/2)	
Non-volatiles	Trade Secret	Data not	N/A	N/A	N/A	N/A
		available or				
		insufficient for				

		classification				
Methylcyclohe	108-87-2	Experimental	28 days	BOD	0 % weight	OECD 301D - Closed
xane		Biodegradation				bottle test
Acetone	67-64-1	Experimental	28 days	BOD	78 % weight	OECD 301D - Closed
		Biodegradation				bottle test
Pentane	109-66-0	Experimental	28 days	BOD	96 % weight	OECD 301C - MITI
		Biodegradation	-		_	test (I)
n-hexane	110-54-3	Experimental	28 days	BOD	100 % weight	OECD 301C - MITI
		Bioconcentrati	-		_	test (I)
		on				
Cyclopentane	287-92-3	Experimental	28 days	BOD	0 % weight	OECD 301F -
		Biodegradation				Manometric
						respirometry

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Propane	74-98-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Non-volatiles	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Methylcyclohe xane	108-87-2	Experimental BCF-Carp	56 days	Bioaccumulati on factor	321	OECD 305E - Bioaccumulation flow- through fish test
Pentane	109-66-0	Estimated Bioconcentrati on		Bioaccumulati on factor	26	Estimated: Bioconcentration factor
2- methylbutane	78-78-4	Estimated BCF - Other		Bioaccumulati on factor	65	Estimated: Bioconcentration factor
n-hexane	110-54-3	Modeled Bioconcentrati on		Bioaccumulati on factor	138	Other methods
Isobutane	75-28-5	Experimental BCF - Other		Bioaccumulati on factor	1.97	Other methods
Acetone	67-64-1	Experimental BCF - Other		Bioaccumulati on factor	0.65	Other methods
Cyclopentane	287-92-3	Experimental Bioconcentrati on		Log Kow	3.00	Other methods
Butane	106-97-8	Experimental Bioconcentrati on		Log Kow	2.89	Other methods

12.4. Mobility in soil

Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

No information available at this time, contact manufacturer for more details

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

See Section 11.1 Information on toxicological effects

Dispose of waste product in a permitted industrial waste facility. Facility must be capable of handling aerosol cans. 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
16 05 04* Gases in pressure containers (including halons) containing dangerous substances

EU waste code (product container after use)

15 01 04 Metallic packaging

SECTION 14: Transportation information

GT-5000-6935-3, UU-0015-7905-9, YP-2080-6050-6, YP-2080-6054-8

ADR/RID: UN1950, AEROSOLS, LIMITED QUANTITY, 2.1, (E), ADR Classification Code: 5F. IMDG-CODE: UN1950, AEROSOLS, 2.1, IMDG-Code segregation code: NONE, LIMITED QUANTITY, EMS: FD,SU. ICAO/IATA: UN1950, AEROSOLS, FLAMMABLE, 2.1.

UU-0015-2889-0

ADR/RID: UN1950, AEROSOLS, LIMITED QUANTITY, 2.1, (E), ADR Classification Code: 5F. IMDG-CODE: UN1950, AEROSOLS, 2.1, IMDG-Code segregation code: NONE, LIMITED QUANTITY, EMS: FD,SU. ICAO/IATA: UN1950, AEROSOLS, FLAMMABLE, 2.1.

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 Not applicable

SECTION 16: Other information

List of relevant H statements

EUH066	Repeated exposure may cause skin dryness or cracking.
H220	Extremely flammable gas.
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.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

List of relevant R-phrases

List of relevant K-ph	ll ascs
R11	Highly flammable.
R12	Extremely flammable.
R36	Irritating to eyes.
R38	Irritating to skin.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R51/53	Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
R62	Possible risk of impaired fertility.
R65	Harmful: May cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

Revision information:

Revision Changes:

Section 1: Product identification numbers information was modified.

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.

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