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

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.

E Mail: tox.uk@mmm.com
Website: 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

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

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

For full text of R phrases, see Section 16.

2.2. Label elements

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

Symbol(s)


Extremely Flammable


Dangerous for the environment

Contains:

No ingredients are assigned to the label.

Risk phrases

R12	Extremely flammable.
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.
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.

Nota P applied to CASRN 64742-48-9.
"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
Heptane & isomers	None		5 - 10	
Non-volatile components	Trade Secret		20 - 30	
Acetone	67-64-1	EINECS 200-662-2	15 - 25	F:R11; Xi:R36; R66; R67 (EU) Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336; EUH066 (CLP)
Propane	74-98-6	EINECS 200-	10 - 20	F+:R12 (EU)

		827-9		Flam. Gas 1, H220; Liquified gas, H280 - Nota U (CLP)
Dimethyl Ether	115-10-6	EINECS 204-065-8	7 - 13	F+:R12 (EU) Flam. Gas 1, H220; Liquified gas, H280 - Nota U (CLP)
Pentane	109-66-0	EINECS 203-692-4	3 - 7	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)
Butane	106-97-8	EINECS 203-448-7	3 - 7	F+:R12 - Nota C (EU) Flam. Gas 1, H220; Liquified gas, H280 - Nota C,U (CLP)
Isobutane	75-28-5	EINECS 200-857-2	1 - 5	F+:R12 - Nota C (EU) Flam. Gas 1, H220; Liquified gas, H280 - Nota C,U (CLP)
2-methyl butane	78-78-4	EINECS 201-142-8	0.5 - 5	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)
Naphtha (petroleum), hydrotreated heavy	64742-48-9	EINECS 265-150-3	1 - 4	Xn:R65 - Nota 4,P (EU) R53; R66; R67 (Self Classified) Asp. Tox. 1, H304 - Nota P (CLP) STOT SE 3, H336; EUH066; Aquatic Chronic 4, H413 (Self Classified)

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

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

Skin contact
Wash with soap and water. If signs/symptoms develop, get medical attention.

Inhalation
Remove person to fresh air. 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

Substance	Condition
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.

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 toxic, corrosivity or flammability 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
Vapours may travel long distances along the ground or floor to an ignition source and flash back. Do not use in a confined area or areas with little or no air movement. 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. Pressurized container: 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.

7.2. Conditions for safe storage including any incompatibilities
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

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Butane	106-97-8	Health and Safety Comm. (UK)	TWA:1450 mg/m³(600 ppm);STEL:1810 mg/m³(750 ppm)	
Pentane	109-66-0	Health and Safety Comm. (UK)	TWA:1800 mg/m³(600 ppm)	
Dimethyl Ether	115-10-6	Health and Safety Comm. (UK)	TWA:766 mg/m³(400 ppm);STEL:958 mg/m³(500 ppm)	
Naphtha (petroleum), hydrotreated heavy	64742-48-9	Manufacturer determined	TWA:100 ppm	
Acetone	67-64-1	Health and Safety Comm. (UK)	TWA:1210 mg/m³(500 ppm);STEL:3620 mg/m³(1500 ppm)	
Propane	74-98-6	Health and Safety Comm. (UK)	Limit value not established:	asphyxiant
2-methyl butane	78-78-4	Health and Safety Comm. (UK)	TWA:1800 mg/m³(600 ppm)	

Health and Safety Comm. (UK) : UK Health and Safety Commission
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
ppm: parts per million
mg/m³: milligrams per cubic metre
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Wear eye/face protection.
The following eye protection(s) are recommended: Indirect vented goggles.

Skin/hand protection

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Respiratory protection

Wear respiratory protection if ventilation is inadequate to prevent overexposure.
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

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Aerosol
Appearance/Odour	Transparent - white liquid in aerosol, strong ketone odour
pH	*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	-42 ºC
Autoignition temperature	*No data available.*
Flammable Limits(LEL)	*No data available.*
Flammable Limits(UEL)	*No data available.*
Vapour pressure	*No data available.*
Relative density	0.74 [*Ref Std:*WATER=1]
Water solubility	Nil
Partition coefficient: n-octanol/water	*No data available.*
Evaporation rate	*No data available.*
Vapour density	>=1 [*Ref Std:*AIR=1]
Viscosity	*Not applicable.*
Density	0.74 g/ml

9.2. Other information

Percent volatile	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

Substance	Condition
None known.	

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

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

Eye contact
Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Skin contact
Prolonged or repeated exposure may cause:
Dermal Defatting: Signs/symptoms may include localised redness, itching, drying and cracking of skin.

Inhalation
Intentional concentration and inhalation may be harmful or 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.

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:
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

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No test data available; calculated ATE >5,000 mg/kg
Acetone	Dermal	Rabbit	LD50 > 15,688 mg/kg
Acetone	Inhalation-Vapor (4 hours)	Rat	LC50 76 mg/l
Acetone	Ingestion	Rat	LD50 5,800 mg/kg
Propane	Inhalation-Gas (4 hours)	Rat	LC50 > 200,000 ppm
Dimethyl Ether	Inhalation-Gas (4 hours)	Rat	LC50 164,000 ppm
Non-volatile components	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Pentane	Dermal	Rabbit	LD50 3,000 mg/kg
Pentane	Inhalation-Vapor (4 hours)	Rat	LC50 > 18 mg/l
Pentane	Ingestion	Rat	LD50 > 2,000 mg/kg
Butane	Inhalation-Gas (4 hours)	Rat	LC50 277,000 ppm
Isobutane	Inhalation-Gas (4 hours)	Rat	LC50 276,000 ppm
2-methyl butane	Dermal	Rabbit	LD50 3,000 mg/kg
2-methyl butane	Inhalation-Vapor (4 hours)	Rat	LC50 > 18 mg/l
2-methyl butane	Ingestion	Rat	LD50 > 2,000 mg/kg
Naphtha (petroleum), hydrotreated heavy	Dermal	Rabbit	LD50 > 3,000 mg/kg
Naphtha (petroleum), hydrotreated heavy	Inhalation-Vapor (4 hours)	Rat	LC50 estimated to be 20 - 50 mg/l
Naphtha (petroleum), hydrotreated heavy	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Acetone		Minimal irritation
Propane		Minimal irritation
Dimethyl Ether		No data available
Non-volatile components		No data available
Pentane		Minimal irritation
Butane		No significant irritation
Isobutane		No significant irritation
2-methyl butane		Minimal irritation
Naphtha (petroleum), hydrotreated heavy		Mild irritant

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Serious Eye Damage/Irritation

Name	Species	Value
Acetone		Severe irritant
Propane		Mild irritant
Dimethyl Ether		No data available
Non-volatile components		No data available
Pentane		Mild irritant
Butane		No significant irritation
Isobutane		No significant irritation
2-methyl butane		Mild irritant
Naphtha (petroleum), hydrotreated heavy		Mild irritant

Skin Sensitisation

Name	Species	Value
Acetone		No data available
Propane		No data available
Dimethyl Ether		No data available
Non-volatile components		No data available
Pentane		Not sensitizing
Butane		No data available
Isobutane		No data available
2-methyl butane		Not sensitizing
Naphtha (petroleum), hydrotreated heavy		Not sensitizing

Respiratory Sensitisation

Name	Species	Value
Acetone		No data available
Propane		No data available
Dimethyl Ether		No data available
Non-volatile components		No data available
Pentane		No data available
Butane		No data available
Isobutane		No data available
2-methyl butane		No data available
Naphtha (petroleum), hydrotreated heavy		No data available

Germ Cell Mutagenicity

Name	Route	Value
Acetone	In vivo	Some positive data exist, but the data are not sufficient for classification
Propane	In Vitro	Not mutagenic
Dimethyl Ether	In Vitro	Not mutagenic
Dimethyl Ether	Inhalation	Not mutagenic
Non-volatile components		No data available
Pentane	Inhalation	Not mutagenic
Pentane	In Vitro	Some positive data exist, but the data are not sufficient for classification
Butane	In Vitro	Not mutagenic
Isobutane	In Vitro	Not mutagenic
2-methyl butane	Inhalation	Not mutagenic
2-methyl butane	In Vitro	Some positive data exist, but the data are not sufficient for classification
Naphtha (petroleum), hydrotreated heavy	Inhalation	Not mutagenic
Naphtha (petroleum), hydrotreated heavy	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value

Acetone	Not specified.		Not carcinogenic
Propane			No data available
Dimethyl Ether	Inhalation		Not carcinogenic
Non-volatile components			No data available
Pentane			No data available
Butane			No data available
Isobutane			No data available
2-methyl butane			No data available
Naphtha (petroleum), hydrotreated heavy	Dermal		Some positive data exist, but the data are not sufficient for classification
Naphtha (petroleum), hydrotreated heavy	Inhalation		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	Some positive reproductive/developmental data exist, but the data are not sufficient for classification		NOEL 1,700 mg/kg/day	
Acetone	Inhalation	Some positive reproductive/developmental data exist, but the data are not sufficient for classification		NOEL 5.2 mg/l	
Propane		No data available			
Dimethyl Ether	Inhalation	Some positive reproductive/developmental data exist, but the data are not sufficient for classification		LOEL 20,000 ppm	
Non-volatile components		No data available			
Pentane	Ingestion	Not toxic to reproduction and/or development		NOAEL 1,000 mg/kg/day	
Pentane	Inhalation	Not toxic to reproduction and/or development		NOAEL 30 mg/l	
Butane		No data available			
Isobutane		No data available			
2-methyl butane	Ingestion	Not toxic to reproduction and/or development		NOAEL 1,000 mg/kg/day	
2-methyl butane	Inhalation	Not toxic to reproduction and/or development		NOAEL 30 mg/l	
Naphtha (petroleum), hydrotreated heavy	Inhalation	Not toxic to reproduction and/or development		NOAEL 2.356 mg/l	

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target	Value	Species	Test result	Exposure

		Organ(s)				**Duration**
Acetone	Inhalation	central nervous system depression	May cause drowsiness or dizziness		LOAEL 0.6 mg/l	
Acetone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
Acetone	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification		LOEL 24 mg/l	
Acetone	Inhalation	hematoppoitic system | immune system	Some positive data exist, but the data are not sufficient for classification		NOEL 0.6 mg/l	
Acetone	Ingestion	central nervous system depression	May cause drowsiness or dizziness		NOAEL N/A	
Propane	Inhalation	cardiac sensitization	Causes damage to organs		LOAEL 100,000 ppm	
Propane	Inhalation	central nervous system depression	May cause drowsiness or dizziness		NOAEL N/A	
Propane	Inhalation	respiratory irritation	All data are negative		Irritation Negative	
Dimethyl Ether	Inhalation	cardiac sensitization	May cause damage to organs		NOAEL 100,000 ppm	
Dimethyl Ether	Inhalation	central nervous system depression	May cause drowsiness or dizziness		LOAEL 10,000 ppm	
Non-volatile components			No data available			
Pentane	Inhalation	central nervous system depression	May cause drowsiness or dizziness		NOAEL N/A	
Pentane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
Pentane	Inhalation	cardiac sensitization	Some positive data exist, but the data are not sufficient for classification		LOEL 295 mg/l	
Butane	Inhalation	cardiac sensitization	Causes damage to organs		NOAEL N/A	
Butane	Inhalation	central nervous system depression	May cause drowsiness or dizziness		LOAEL 10,000 ppm	
Butane	Inhalation	heart	Some positive data exist, but the data are not sufficient for classification		LOEL 5,000 ppm	
Butane	Inhalation	respiratory irritation	All data are negative		Irritation Negative	

Isobutane	Inhalation	cardiac sensitization	Causes damage to organs		NOAEL N/A	
Isobutane	Inhalation	central nervous system depression	May cause drowsiness or dizziness		NOAEL N/A	
Isobutane	Inhalation	respiratory irritation	All data are negative		Irritation Negative	
2-methyl butane	Inhalation	central nervous system depression	May cause drowsiness or dizziness		NOAEL N/A	
2-methyl butane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation N/A	
2-methyl butane	Inhalation	cardiac sensitization	Some positive data exist, but the data are not sufficient for classification		LOEL 295 mg/l	
Naphtha (petroleum), hydrotreated heavy	Inhalation	central nervous system depression	May cause drowsiness or dizziness		NOAEL N/A	
Naphtha (petroleum), hydrotreated heavy	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
Naphtha (petroleum), hydrotreated heavy	Inhalation	nervous system	Some positive data exist, but the data are not sufficient for classification		NOEL 6.5 mg/l	
Naphtha (petroleum), hydrotreated heavy	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification		NOEL 2.4 mg/l	
Naphtha (petroleum), hydrotreated heavy	Inhalation	heart	All data are negative		NOAEL 2.5 mg/l	
Naphtha (petroleum), hydrotreated heavy	Inhalation	liver | kidney and/or bladder	All data are negative		NOAEL 0.610 mg/l	
Naphtha (petroleum), hydrotreated heavy	Inhalation	muscles	All data are negative		NOAEL 0.61 mg/l	

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		NOEL N/A	
Acetone	Inhalation	kidney and/or	Some positive		LOAEL 119	

		bladder	data exist, but the data are not sufficient for classification		mg/l	
Acetone	Inhalation	hematopoietic system | immune system	Some positive data exist, but the data are not sufficient for classification		NOEL 0.6 mg/l	
Acetone	Inhalation	liver	All data are negative		NOAEL 45 mg/l	
Acetone	Inhalation	heart	All data are negative		NOAEL 19,000 ppm	
Acetone	Ingestion	respiratory system	Some positive data exist, but the data are not sufficient for classification		NOEL N/A	
Acetone	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		NOEL 900 mg/kg/day	
Acetone	Ingestion	heart	Some positive data exist, but the data are not sufficient for classification		LOEL 2,500 mg/kg/day	
Acetone	Ingestion	hematopoietic system	Some positive data exist, but the data are not sufficient for classification		NOEL 200 mg/kg/day	
Acetone	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification		NOEL 1,579 mg/kg/day	
Acetone	Ingestion	muscles	All data are negative		NOAEL 2,500 mg/kg	
Acetone	Ingestion	skin | eyes	All data are negative		NOAEL 11,298 mg/kg/day	
Acetone	Ingestion	bone, teeth, nails, and/or hair	All data are negative		NOAEL 11,298 mg/kg	
Propane			No data available			
Dimethyl Ether	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification		NOEL 2,000 ppm	
Dimethyl Ether	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification		NOEL 10,000 ppm	
Dimethyl Ether	Inhalation	bone marrow	All data are negative		NOAEL 25,000 ppm	
Non-volatile components			No data available			
Pentane	Inhalation	peripheral	Some positive		NOAEL N/A	

		nervous system	data exist, but the data are not sufficient for classification			
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		NOAEL 20 mg/l	
Pentane	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		LOEL 250 mg/kg/day	
Butane	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		LOEL 1,017 ppm	
Butane	Inhalation	blood	All data are negative		NOAEL 4,489 ppm	
Isobutane	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		NOAEL N/A	
2-methyl butane	Inhalation	peripheral nervous system	Some positive data exist, but the data are not sufficient for classification		NOAEL N/A	
2-methyl butane	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		NOAEL 20 mg/l	
2-methyl butane	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		LOEL 250 mg/kg/day	
Naphtha (petroleum), hydrotreated	Dermal	nervous system	Some positive data exist, but the data are not		LOEL 691 mg/kg	

heavy			sufficient for classification			
Naphtha (petroleum), hydrotreated heavy	Inhalation	nervous system	Some positive data exist, but the data are not sufficient for classification		LOEL 4.580 mg/l	
Naphtha (petroleum), hydrotreated heavy	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification		NOEL 0.619 mg/l	
Naphtha (petroleum), hydrotreated heavy	Inhalation	endocrine system | muscles	Some positive data exist, but the data are not sufficient for classification		LOEL 0.616 mg/l	
Naphtha (petroleum), hydrotreated heavy	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		LOEL 0.57 mg/l	
Naphtha (petroleum), hydrotreated heavy	Inhalation	bone, teeth, nails, and/or hair | blood | liver	All data are negative		NOAEL 5.62 mg/l	
Naphtha (petroleum), hydrotreated heavy	Inhalation	heart	All data are negative		NOAEL 1.271 mg/l	
Naphtha (petroleum), hydrotreated heavy	Inhalation	immune system	All data are negative		NOAEL 0.616 mg/l	

Aspiration Hazard

Name	Value
Acetone	Not an aspiration hazard
Propane	Not an aspiration hazard
Dimethyl Ether	Not an aspiration hazard
Non-volatile components	Not an aspiration hazard
Pentane	Aspiration hazard
Butane	Not an aspiration hazard
Isobutane	Not an aspiration hazard
2-methyl butane	Aspiration hazard
Naphtha (petroleum), hydrotreated heavy	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 be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

Acute aquatic hazard:
GHS Acute 3: Harmful to aquatic life.

Chronic aquatic hazard:
GHS Chronic 3: Harmful to aquatic life with long lasting effects.

No product test data available.

Material	CAS Nbr	Organism	Type	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
Butane	106-97-8		No data available.			
Dimethyl Ether	115-10-6	Water flea	Experimental	48 hours	EC50	>4,000 mg/l
Dimethyl Ether	115-10-6	Guppy	Experimental	96 hours	LC50	>4,000 mg/l
Isobutane	75-28-5		No data available.			% weight
2-methyl butane	78-78-4		No data available.			
Pentane	109-66-0	Water flea	Experimental	48 hours	EC50	9.74 mg/l
Pentane	109-66-0	Rainbow trout	Experimental	96 hours	LC50	4.26 mg/l
Propane	74-98-6		No data available.			
Naphtha (petroleum), hydrotreated heavy	64742-48-9		No data available.			

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Acetone	67-64-1	Estimated Photolysis		Photolytic half-life (in air)	80 days (t 1/2)	Other methods
2-methyl butane	78-78-4	Experimental Photolysis		Photolytic half-life (in air)	8.11 days (t 1/2)	Other methods
Isobutane	75-28-5	Experimental Photolysis		Photolytic half-life (in air)	13.7 days (t 1/2)	Other methods
Propane	74-98-6	Experimental Photolysis		Photolytic half-life (in air)	27.5 days (t 1/2)	Other methods
Pentane	109-66-0	Experimental Photolysis		Photolytic half-life (in air)	8.14 days (t 1/2)	Other methods
Butane	106-97-8	Experimental Photolysis		Photolytic half-life (in air)	6.3 days (t 1/2)	Other methods
Acetone	67-64-1	Experimental Photolysis		Photolytic half-life (in air)	146.5 days (t 1/2)	Other methods
Naphtha (petroleum), hydrotreated heavy	64742-48-9	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	10 % weight	OECD 301D - Closed bottle test
Acetone	67-64-1	Experimental Biodegradation	28 days	BOD	96 % weight	OECD 301C - MITI test (I)
Butane	106-97-8	No data available.	N/A	N/A	N/A	N/A

Isobutane	75-28-5	No data available.	N/A	N/A	N/A	N/A
2-methyl butane	78-78-4	Experimental Biodegradation	20 days	Percent degraded	100 % weight	Other methods
Pentane	109-66-0	Experimental Biodegradation	28 days	BOD	96 % weight	OECD 301C - MITI test (I)
Propane	74-98-6	No data available.	N/A	N/A	N/A	N/A
Dimethyl Ether	115-10-6	Experimental Biodegradation	28 days	BOD	0 % weight	OECD 301C - MITI test (I)

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Propane	74-98-6	No data available.	N/A	N/A	N/A	N/A
2-methyl butane	78-78-4	Estimated BCF - Other		Bioaccumulation factor	65	Estimated: Bioconcentration factor
Isobutane	75-28-5	Experimental BCF - Other		Bioaccumulation factor	1.97	Other methods
Acetone	67-64-1	Experimental Bioconcentration		Log Kow	-0.24	Other methods
Acetone	67-64-1	Experimental BCF - Other		Bioaccumulation factor	0.65	Other methods
Butane	106-97-8	Experimental Bioconcentration		Log Kow	2.88	Other methods
Isobutane	75-28-5	Experimental Bioconcentration		Log Kow	2.76	Other methods
2-methyl butane	78-78-4	Experimental Bioaccumulation		Log Kow	2.30	Other methods
Pentane	109-66-0	Experimental Bioaccumulation		Log Kow	3.39	Other methods
Dimethyl Ether	115-10-6	Experimental Bioconcentration		Log Kow	0.2	Other methods

12.4. Mobility in soil
Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

Ingredient	CAS Nbr	PBT/vPvB status
Non-volatile components	31393-98-3	Meets REACH PBT criteria
Naphtha (petroleum), hydrotreated heavy	64742-48-9	Meets REACH PBT criteria

12.6. 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. 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 substances
20 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

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ADR/RID: UN1950, AEROSOLS, LIMITED QUANTITY, 2.1, (D), ADR Classification Code: 5F.
IMDG-CODE: UN1950, AEROSOLS, 2.1, 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.
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

List of relevant R-phrases

R11	Highly flammable.
R12	Extremely flammable.
R36	Irritating to eyes.
R51/53	Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
R53	May cause long-term adverse effects in the aquatic environment.
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:
Safety phrase was modified.
Section 8: Respiratory protection - recommended respirators was modified.
Section 16: List of relevant R phrase information was modified.
Section 3: Composition/ Information of ingredients table was modified.
Section 2: Indication of danger information was modified.
Section 9: Flammability (solid, gas) information was modified.
Copyright was modified.
Section 5: Fire - Extinguishing media information was modified.
Section 6: Accidental release personal information was modified.
Section 6: Accidental release clean-up information was modified.
Section 7: Conditions safe storage was modified.
Section 13: Standard Phrase Category Waste GHS was modified.
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. was modified.
Section 8: Respiratory protection - recommended respirators guide was added.
Section 12: Component ecotoxicity information was added.
Section 12: Persistence and Degradability information was added.
Section 12:Bioccumulative potential information was added.
Section 12: Component Ecotoxicity table Material column header was added.
Section 12: Component Ecotoxicity table CAS No column header was added.
Section 12: Component Ecotoxicity table Organism column header was added.
Section 12: Component Ecotoxicity table Type column header was added.
Section 12: Component Ecotoxicity table Exposure column header was added.
Section 12: Component Ecotoxicity table End point column header was added.
Section 12: Component Ecotoxicity table Result column header was added.
Section 12: Persistence and degradability table Material column header was added.
Section 12: Persistence and degradability table CAS No column header was added.
Section 12: Persistence and degradability table Test Type column header was added.
Section 12: Persistence and degradability table Duration column header was added.
Section 12: Persistence and degradability table Test Result column header was added.
Section 12: Persistence and degradability table Protocol column header was added.
Section 12:Bioccumulative potential table Material column header was added.
Section 12:Bioccumulative potential table CAS No column header was added.
Section 12:Bioccumulative potential table CAS No column header was added.
Section 12:Bioccumulative potential table Test Result column header was added.
Section 12:Bioccumulative potential table Protocol column header was added.
Section 12:Bioccumulative potential table Test Type column header was added.
Section 12: PBT/vPvB table CAS No. column heading was added.
Section 12: PBT/vPvB table CAS No. column heading was added.
Section 12: PBT/vPvB table PBT/vPvB Status column heading was added.
Section 12: PBT/vPvB table row was added.

Section 12: Persistence and degradability table Study Type column header was added.
Section 12:Bioccumulative potential table Test Type column header was added.
Label: Graphic Text was added.
Section 2: R phrase reference was added.
Label: Graphic was added.
Label: Graphic was added.
Label: Graphic Text was added.
Section 9: Flammability (solid, gas) information was added.
Section 2: Symbol was deleted.
Section 2: Symbols heading was deleted.
Prints No Data if Component ecotoxicity information is not present was deleted.
Prints No Data if Persistence and Degradability information is not present was deleted.
Prints No Data if Bioccumulative potential information is not present was deleted.
Section 12: No PBT/vPvB information available warning was deleted.

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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