

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 Spray 74 Foam Adhesive

Product Identification Numbers

YP-2080-6108-2

7000116772

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

Identified uses

Aerosol Adhesive.

1.3. Details of the supplier of the safety data sheet

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

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

1.4. Emergency telephone number

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

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

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

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

This material has been tested for eye damage/irritation and the test results are reflected in the assigned classification.

This material has been tested for skin corrosion/irritation and the test results do not meet the criteria for classification.

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CLASSIFICATION:

Aerosol, Category 1 - Aerosol 1; H222, H229

Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318

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) |GHS05 (Corrosion) |GHS07 (Exclamation mark) |GHS09 (Environment) |

Pictograms



Ingredients:

Ingredient	CAS Nbr	EC No.	% by Wt
acetone	67-64-1	200-662-2	10 - 20
pentane	109-66-0	203-692-4	5 - 10

HAZARD STATEMENTS:

H222 Extremely flammable aerosol.

H229 Pressurised container. may burst if heated.

H318 Causes serious eye damage.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

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

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTRE or doctor/physician.

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:

EUH066

Repeated exposure may cause skin dryness or cracking.

13% of the mixture consists of components of unknown acute oral toxicity.

Notes on labelling

Test data for a similar material indicate that this material meets the requirements for Eye Irritation Category 1 and does not meet the requirements for Eye Irritation Category 2A. No single ingredient can be attributed to the Eye Irritation Category 1 classification and thus no ingredients are disclosed (meets CLP requirements).

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Ingredient	Identifier(s)	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
dimethyl ether	(CAS-No.) 115-10-6 (EC-No.) 204-065-8 (REACH-No.) 01- 2119472128-37	15 - 25	Liquified gas, H280 Nota U
Butane	(CAS-No.) 106-97-8 (EC-No.) 203-448-7 (REACH-No.) 01- 2119474691-32	< 20	Liquified gas, H280 Nota C,U
Isobutane	(CAS-No.) 75-28-5 (EC-No.) 200-857-2	< 20	Liquified gas, H280 Nota C,U
propane	(CAS-No.) 74-98-6 (EC-No.) 200-827-9 (REACH-No.) 01- 2119486944-21	< 20	Liquified gas, H280 Nota U
acetone	(CAS-No.) 67-64-1 (EC-No.) 200-662-2 (REACH-No.) 01- 2119471330-49	10 - 20	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066
Polimeric terpenes	Trade Secret	7 - 13	Aquatic Chronic 4, H413
SBR stabilised	Trade Secret	5 - 10	Substance not classified as hazardous
pentane	(CAS-No.) 109-66-0 (EC-No.) 203-692-4 (REACH-No.) 01- 2119459286-30	5 - 10	Flam. Liq. 2, H225 Asp. Tox. 1, H304 STOT SE 3, H336 EUH066

			Aquatic Chronic 2, H411 Nota C
methyl acetate	(CAS-No.) 79-20-9 (EC-No.) 201-185-2 (REACH-No.) 01- 2119459211-47	< 7	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066
Ester of Rosin	Trade Secret	1 - 5	Substance with a national occupational exposure limit
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	(EC-No.) 920-901-0	1 - 5	Asp. Tox. 1, H304 EUH066
isopentane	(CAS-No.) 78-78-4 (EC-No.) 201-142-8	1 - 5	Flam. Liq. 1, H224 Asp. Tox. 1, H304 STOT SE 3, H336 EUH066 Aquatic Chronic 2, H411
cyclohexane	(CAS-No.) 110-82-7 (EC-No.) 203-806-2 (REACH-No.) 01- 2119463273-41	1 - 5	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Acute 1, H400,M=1 Aquatic Chronic 1, H410,M=1

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

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

Eve contact

Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately 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

No critical symptoms or effects. 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

SubstanceConditionAldehydes.During combustion.Hydrocarbons.During combustion.formaldehydeDuring combustion.Carbon monoxideDuring combustion.Carbon dioxide.During combustion.

5.3. Advice for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

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. Contain spill. Cover spill area with a fire-extinguishing foam. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible.

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. For industrial/occupational use only. Not for consumer sale or use. Do not use in a confined area with minimal air exchange. 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.)

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/m³(600 ppm);STEL:1810 mg/m³(750 ppm)	
pentane	109-66-0	UK HSC	TWA:1800 mg/m³(600 ppm)	
cyclohexane	110-82-7	UK HSC	TWA:350 mg/m³(100 ppm);STEL:1050 mg/m³(300 ppm)	
dimethyl ether	115-10-6	UK HSC	TWA:766 mg/m³(400 ppm);STEL:958 mg/m³(500 ppm)	
acetone	67-64-1	UK HSC	TWA:1210 mg/m³(500 ppm);STEL:3620 mg/m³(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)	
methyl acetate	79-20-9	UK HSC	TWA:616 mg/m³(200 ppm);STEL:770 mg/m³(250 ppm)	
Ester of Rosin	Trade Secre	t UK HSC	TWA(as fume):0.05 mg/m³;STEL(as fume):0.15 mg/m³	Respiratory Sensitizer

UK HSC: UK Health and Safety Commission

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

CEIL: Ceiling

Biological limit values

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

Derived no effect level (DNEL)

Ingredient	Degradation Product	Population	Human exposure pattern	DNEL
cyclohexane		Worker	Dermal, Long-term exposure (8 hours), Systemic effects	2,016 mg/kg bw/d
cyclohexane		Worker	Inhalation, Long-term exposure (8 hours), Local effects	700 mg/m ³
cyclohexane		Worker	Inhalation, Long-term exposure (8 hours), Systemic effects	700 mg/m ³
cyclohexane		Worker	Inhalation, Short-term exposure, Local effects	700 mg/m ³

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cyclohexane	Worker	Inhalation, Short-term exposure, Systemic	700 mg/m³
		effects	
acetone	Worker	Dermal, Long-term exposure (8 hours), Systemic effects	186 mg/kg bw/d
acetone	Worker	Inhalation, Long-term exposure (8 hours), Systemic effects	1,210 mg/m³
acetone	Worker	Inhalation, Short-term exposure, Local effects	2,420 mg/m³

Predicted no effect concentrations (PNEC)

Ingredient	Degradation Product	Compartment	PNEC
cyclohexane		Freshwater	0.207 mg/l
cyclohexane		Freshwater sediments	3.627 mg/kg d.w.
cyclohexane		Intermittent releases to water	0.207 mg/l
cyclohexane		Marine water	0.207 mg/l
acetone		Agricultural soil	29.5 mg/kg d.w.
acetone		Freshwater	10.6 mg/l
acetone		Freshwater sediments	30.4 mg/kg d.w.
acetone		Intermittent releases to water	21 mg/l
acetone		Marine water	1.06 mg/l
acetone		Marine water sediments	3.04 mg/kg d.w.
acetone		Sewage Treatment Plant	100 mg/l

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

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:

Full face shield.

Indirect vented goggles.

Applicable Norms/Standards

Use eye/face 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

Gloves made from the following material(s) are recommended:

Material Thickness (mm) **Breakthrough Time** Nitrile rubber. No data available No data available

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 air-purifying respirator suitable for organic vapours and particulates

Half facepiece or full facepiece supplied-air respirator

Organic vapour respirators may have short service life.

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

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

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 Liquid. **Specific Physical Form:** Aerosol Colour Orange

Odor Sweet Hydrocarbon No data available. Odour threshold Melting point/freezing point Not applicable. Boiling point/boiling range No data available. Not applicable.

Flammability (solid, gas) Flammable Limits(LEL) No data available. Flammable Limits(UEL) No data available.

Flash point -42 °C [Test Method: Tagliabue closed cup]

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

substance/mixture is non-soluble (in water)

Kinematic Viscosity *Not applicable.* Nil

Water solubility

Solubility- non-water No data available. Partition coefficient: n-octanol/water No data available. Vapour pressure No data available. Density 0.713 g/ml

Relative density [Ref Std: WATER=1]Not applicable.

Relative Vapor Density

No data available.

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds 55 % [Details: Calculated using EU Definition]

Evaporation ratePercent volatile
No data available.
78.54 % 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

Heat.

Sparks and/or flames.

10.5 Incompatible materials

Strong acids.

10.6 Hazardous decomposition products

<u>Substance</u> <u>Condition</u>

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

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

Signs and Symptoms of Exposure

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

Inhalation

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

Mild Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, and dryness.

Eye contact

Corrosive (eye burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of 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.

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	İ	No data available; calculated ATE >5,000 mg/kg	
Isobutane	Inhalation- Gas (4 hours)	Rat	LC50 276,000 ppm	
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	
dimethyl ether	Inhalation- Gas (4 hours)	Rat	LC50 164,000 ppm	
Butane	Inhalation- Gas (4 hours)	Rat	LC50 277,000 ppm	
Polimeric terpenes	Dermal		LD50 estimated to be > 5,000 mg/kg	
Polimeric terpenes	Ingestion	Rat	LD50 > 34,000 mg/kg	
pentane	Dermal	Rabbit	LD50 3,000 mg/kg	
pentane	Inhalation- Vapour (4 hours)	Rat	LC50 > 18 mg/l	
pentane	Ingestion	Rat	LD50 > 2,000 mg/kg	
SBR stabilised	Dermal	Rabbit	LD50 > 2,000 mg/kg	
SBR stabilised	Ingestion	Rat	LD50 > 5,000 mg/kg	
methyl acetate	Dermal	Rat	LD50 > 2,000 mg/kg	
methyl acetate	Inhalation- Vapour (4 hours)	Rat	LC50 > 49 mg/l	
methyl acetate	Ingestion	Rat	LD50 > 5,000 mg/kg	
isopentane	Dermal	Rabbit	LD50 3,000 mg/kg	

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isopentane	Inhalation- Vapour (4	Rat	LC50 > 18 mg/l
isopentane	hours) Ingestion	Rat	LD50 > 2,000 mg/kg
cyclohexane	Dermal	Rat	LD50 > 2,000 mg/kg
cyclohexane	Inhalation- Vapour (4 hours)	Rat	LC50 > 32.9 mg/l
cyclohexane	Ingestion	Rat	LD50 6,200 mg/kg
Ester of Rosin	Dermal	Rat	LD50 > 2,000 mg/kg
Ester of Rosin	Ingestion	Rat	LD50 > 2,000 mg/kg
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	Inhalation- Vapour		LC50 estimated to be 20 - 50 mg/l
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	Dermal	Rabbit	LD50 > 5,000 mg/kg
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Overall product		Mild irritant
Isobutane	Professio	No significant irritation
	nal	
	judgemen	
	t	
propane	Rabbit	Minimal irritation
acetone	Mouse	Minimal irritation
Butane	Professio	No significant irritation
	nal	
	judgemen	
	t	
pentane	Rabbit	Minimal irritation
SBR stabilised	Professio	No significant irritation
	nal	
	judgemen	
	t	
methyl acetate	Rabbit	No significant irritation
isopentane	Rabbit	Minimal irritation
cyclohexane	Rabbit	Mild irritant
Ester of Rosin	Rabbit	No significant irritation
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	Rabbit	Minimal irritation

Serious Eye Damage/Irritation

Name	Species	Value
Overall product		Corrosive
Isobutane	Professio nal judgemen t	No significant irritation
propane	Rabbit	Mild irritant
acetone	Rabbit	Severe irritant
Butane	Rabbit	No significant irritation
pentane	Rabbit	Mild irritant
methyl acetate	Rabbit	Moderate irritant
isopentane	Rabbit	Mild irritant
cyclohexane	Rabbit	Mild irritant
Ester of Rosin	Rabbit	Mild irritant
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	Rabbit	Mild irritant

Skin Sensitisation

Name	Species	Value

pentane	Guinea pig	Not classified
methyl acetate	Human	Not classified
isopentane	Guinea	Not classified
	pig	
Ester of Rosin	Human	Not classified
	and	
	animal	
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	Guinea	Not classified
	pig	

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
Isobutane	In Vitro	Not mutagenic
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
dimethyl ether	In Vitro	Not mutagenic
dimethyl ether	In vivo	Not mutagenic
Butane	In Vitro	Not mutagenic
pentane	In vivo	Not mutagenic
pentane	In Vitro	Some positive data exist, but the data are not sufficient for classification
methyl acetate	In Vitro	Not mutagenic
methyl acetate	In vivo	Not mutagenic
isopentane	In vivo	Not mutagenic
isopentane	In Vitro	Some positive data exist, but the data are not sufficient for classification
cyclohexane	In Vitro	Not mutagenic
cyclohexane	In vivo	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	Multiple	Not carcinogenic
	specified.	animal	
		species	
dimethyl ether	Inhalation	Rat	Not carcinogenic
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	Not	Not	Not carcinogenic
	specified.	available	

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
pentane	Ingestion	Not classified for development	Rat	NOAEL 1,000	during organogenesis

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				mg/kg/day	
pentane	Inhalation	Not classified for development	Rat	NOAEL 30	during
				mg/l	organogenesis
isopentane	Ingestion	Not classified for development	Rat	NOAEL	during
				1,000	organogenesis
				mg/kg/day	
isopentane	Inhalation	Not classified for development	Rat	NOAEL 30	during
				mg/l	organogenesis
cyclohexane	Inhalation	Not classified for female reproduction	Rat	NOAEL 24	2 generation
				mg/l	
cyclohexane	Inhalation	Not classified for male reproduction	Rat	NOAEL 24	2 generation
				mg/l	
cyclohexane	Inhalation	Not classified for development	Rat	NOAEL 6.9	2 generation
				mg/l	
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
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	
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
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
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	
pentane	Inhalation	central nervous	May cause drowsiness or	Multiple	NOAEL Not	not available

		system depression	dizziness	animal species	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
methyl acetate	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
methyl acetate	Inhalation	respiratory irritation	May cause respiratory irritation	Human and animal	NOAEL Not available	
methyl acetate	Inhalation	blindness	Not classified		NOAEL Not available	
methyl acetate	Ingestion	central nervous system depression	May cause drowsiness or dizziness		NOAEL Not available	
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
cyclohexane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
cyclohexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	
cyclohexane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Isobutane	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 4,500 ppm	13 weeks
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	14 days

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	1		ı	ı	T = 222	
					3,896 mg/kg/day	
acetone	Ingestion	eyes	Not classified	Rat	NOAEL 3,400 mg/kg/day	13 weeks
acetone	Ingestion	respiratory system	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
acetone	Ingestion	muscles	Not classified	Rat	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
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
methyl acetate	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.1 mg/l	28 days
methyl acetate	Inhalation	endocrine system hematopoietic system liver immune system kidney and/or bladder	Not classified	Rat	NOAEL 6.1 mg/l	28 days
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
cyclohexane	Inhalation	liver	Not classified	Rat	NOAEL 24 mg/l	90 days
cyclohexane	Inhalation	auditory system	Not classified	Rat	NOAEL 1.7 mg/l	90 days

cyclohexane	Inhalation	kidney and/or bladder	Not classified	Rabbit	NOAEL 2.7 mg/l	10 weeks
cyclohexane	Inhalation	hematopoietic system	Not classified	Mouse	NOAEL 24 mg/l	14 weeks
cyclohexane	Inhalation	peripheral nervous system	Not classified	Rat	NOAEL 8.6 mg/l	30 weeks

Aspiration Hazard

Name	Value
pentane	Aspiration hazard
isopentane	Aspiration hazard
cyclohexane	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	Type	Exposure	Test endpoint	Test result
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
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
Butane	106-97-8		Data not available or insufficient for classification			N/A
Isobutane	75-28-5		Data not available or insufficient for classification			N/A
propane	74-98-6		Data not available or insufficient for classification			N/A
Polimeric terpenes	Trade Secret	Activated sludge	Experimental	3 hours	NOEC	1,000 mg/l

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Polimeric terpenes	Trade Secret	Water flea	Experimental	48 hours	No tox obs at lmt of water sol	>100 mg/l
Polimeric terpenes	Trade Secret	Water flea	Endpoint not reached	21 days	EL10	>100 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
SBR stabilised	Trade Secret		Data not available or insufficient for classification			N/A
methyl acetate	79-20-9	Bacteria	Experimental	16 hours	EC50	6,000 mg/l
methyl acetate	79-20-9	Green algae	Experimental	72 hours	EC50	>120 mg/l
methyl acetate	79-20-9	Water flea	Experimental	48 hours	EC50	1,026.7 mg/l
methyl acetate	79-20-9	Green algae	Experimental	72 hours	NOEC	120 mg/l
cyclohexane	110-82-7	Bacteria	Experimental	24 hours	IC50	97 mg/l
cyclohexane	110-82-7	Fathead minnow	Experimental	96 hours	LC50	4.53 mg/l
cyclohexane	110-82-7	Water flea	Experimental	48 hours	EC50	0.9 mg/l
Ester of Rosin	Trade Secret	Green algae	Estimated	72 hours	No tox obs at lmt of water sol	>100 mg/l
Ester of Rosin	Trade Secret	Rainbow trout	Estimated	96 hours	No tox obs at lmt of water sol	>100 mg/l
Ester of Rosin	Trade Secret	Water flea	Estimated	48 hours	No tox obs at lmt of water sol	>100 mg/l
Ester of Rosin	Trade Secret	Green Algae	Estimated	72 hours	No tox obs at lmt of water sol	>100 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
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
dimethyl ether	115-10-6	Experimental		Photolytic half-life	12.4 days (t	Non-standard method
-		Photolysis		(in air)	1/2)	
dimethyl ether	115-10-6	Experimental	28 days	BOD	5 % weight	OECD 301D - Closed bottle
-		Biodegradation			_	test
acetone	67-64-1	Experimental		Photolytic half-life	147 days (t 1/2)	
		Photolysis		(in air)		
acetone	67-64-1	Experimental	28 days	BOD	78 %	OECD 301D - Closed bottle
		Biodegradation			BOD/ThBOD	test
Butane	106-97-8	Experimental		Photolytic half-life	12.3 days (t	Non-standard method
		Photolysis		(in air)	1/2)	

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Isobutane	75-28-5	Experimental Photolysis		Photolytic half-life (in air)	13.4 days (t 1/2)	Non-standard method
propane	74-98-6	Experimental Photolysis		Photolytic half-life (in air)	27.5 days (t 1/2)	Non-standard method
Polimeric terpenes	Trade Secret	Experimental Biodegradation	28 days	BOD	4 % BOD/ThBOD	OECD 301D - Closed bottle test
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
SBR stabilised	Trade Secret	Data not availbl- insufficient			N/A	
methyl acetate	79-20-9	Experimental Biodegradation	28 days	BOD	70 % weight	OECD 301D - Closed bottle test
cyclohexane	110-82-7	Experimental Photolysis		Photolytic half-life (in air)	4.14 days (t 1/2)	Non-standard method
cyclohexane	110-82-7	Experimental Biodegradation	28 days	BOD	77 % BOD/ThBOD	OECD 301F - Manometric respirometry
Ester of Rosin	Trade Secret	Experimental Biodegradation	28 days	CO2 evolution	47.3 %CO2 evolution/THC O2 evolution	OECD 301B - Modified sturm or CO2
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	920-901-0	Estimated Biodegradation	28 days	BOD	31.3 % 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
dimethyl ether	115-10-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
acetone	67-64-1	Experimental BCF - Other		Bioaccumulation factor	0.65	
acetone	67-64-1	Experimental Bioconcentration		Log Kow	-0.24	
Butane	106-97-8	Experimental Bioconcentration		Log Kow	2.89	Non-standard method
Isobutane	75-28-5	Experimental Bioconcentration		Log Kow	2.76	Non-standard method
propane	74-98-6	Experimental Bioconcentration		Log Kow	2.36	Non-standard method
Polimeric terpenes	Trade Secret	Experimental Bioconcentration		Log Kow	7.41	Non-standard method
pentane	109-66-0	Estimated Bioconcentration		Bioaccumulation factor	26	Estimated: Bioconcentration factor
SBR stabilised	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
methyl acetate	79-20-9	Experimental Bioconcentration		Log Kow	0.18	Non-standard method
cyclohexane	110-82-7	Experimental BCF- Carp	56 days	Bioaccumulation factor	129	OECD 305E - Bioaccumulation flow- through fish test
Ester of Rosin	Trade Secret	Estimated Bioconcentration		Bioaccumulation factor	7.4	Estimated: Bioconcentration factor
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	920-901-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
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 TM

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. 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

	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

Carcinogenicity

IngredientCAS NbrClassificationRegulationSBR stabilisedTrade SecretGr. 3: Not classifiableInternational Agency
for Research on Cancer

Restrictions on the manufacture, placing on the market and use:

The following substance(s) contained in this product is/are subject through Annex XVII of REACH regulation to restrictions on the manufacture, placing on the market and use when present in certain dangerous substances, mixtures and articles. Users of this product are required to comply with the restrictions placed upon it by the aforementioned provision.

IngredientCAS Nbrcyclohexane110-82-7

Restriction status: listed in REACH Annex XVII

Restricted uses: See Annex XVII to Regulation (EC) No 1907/2006 for Conditions of Restriction

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.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic 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.

Industrial Use of Adhesives and Sealants: Section 16: Annex information was modified.

Industrial Use of Adhesives: Section 16: Annex information was modified.

Professional Use of Adhesives and Sealants: Section 16: Annex information was modified.

Section 1: Emergency telephone information was modified.

CLP: Ingredient table information was modified.

CLP Remark(phrase) information was deleted.

Label: CLP Percent Unknown information was deleted.

Label: CLP Percent Unknown information was modified.

Label: CLP Precautionary - Prevention 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: Information on toxicological effects information was modified.

Section 5: Hazardous combustion products table information was modified.

Section 6: Accidental release clean-up information information was modified.

Section 7: Conditions safe storage information was modified.

Section 8: DNEL table row information was modified.

Section 8: Occupational exposure limit table information was modified.

- Section 8: PNEC table row information was modified.
- Section 8: Respiratory protection recommended respirators information 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 09: Odor information was modified.
- Section 9: Oxidising properties information information was deleted.
- Section 9: pH information information was deleted.
- Section 9: Property description for optional properties information was modified.
- Section 9: Relative density information information was modified.
- Section 9: 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 Toxicity Table information was modified.
- 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: Carcinogenicity information information was added.
- Section 15: Regulations Inventories information was added.
- Section 15: Restrictions on manufacture ingredients information information was modified.

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

Sectio 16: UK disclaimer information was deleted.

Annex

1. Title	
Substance identification	cyclohexane;
	EC No. 203-806-2;
	CAS Nbr 110-82-7;
Exposure Scenario Name	Industrial Use of Adhesives
Lifecycle Stage	Use at industrial sites
Contributing activities	PROC 07 -Industrial spraying
	PROC 08a -Transfer of substance or mixture (charging and discharging) at non-
	dedicated facilities
	PROC 08b -Transfer of substance or mixture (charging and discharging) at
	dedicated facilities
	PROC 09 -Transfer of substance or mixture into small containers (dedicated
	filling line, including weighing)
	PROC 10 -Roller application or brushing
	PROC 13 -Treatment of articles by dipping and pouring
	ERC 04 -Use of non-reactive processing aid at industrial site (no inclusion into or
D	onto article)
Processes, tasks and activities covered	Application of product through a mixing nozzle Application of product with a roller or brush. Application of product with applicator gun. Spraying of
	substances/mixtures. Transfers with dedicated controls, including loading, filling,
	dumping, bagging. Transfers without dedicated controls, including loading, filling,
	dumping, bagging. Transfers without dedicated controls, including loading, filling, dumping, bagging.
2. Operational conditions and risk mana	
Operating Conditions	Physical state:Liquid.
operating conditions	General operating conditions:
	Assumes use at not more than 20°C above ambient temperature;
	Duration of use: 8 hours/day;
	Emission days per year: <= 100 days per year;
	Task: PROC07;
	Indoors with good general ventilation;
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;

	· ;
	The following task-specific risk management measures apply in addition to those
	listed above:
	Task: PROC08a;
	Human Health;
	Provide extract ventilation to points where emissions occur;
	Task: PROC08b;
	Human Health;
	Provide extract ventilation to points where emissions occur;
	Task: PROC10;
	Human Health;
	Provide extract ventilation to points where emissions occur;
Waste management measures	Do not apply industrial sludge to natural soils;
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.

1. Title				
Substance identification	acetone; EC No. 200-662-2; CAS Nbr 67-64-1;			
Exposure Scenario Name	Industrial Use of Adhesives and Sealants			
Lifecycle Stage	Use at industrial sites			
Contributing activities	PROC 07 -Industrial spraying ERC 04 -Use of non-reactive processing aid at industrial site (no inclusion into or onto article)			
Processes, tasks and activities covered	Spraying of substances/mixtures.			
2. Operational conditions and risk mana	ngement measures			
Operating Conditions	Physical state:Liquid. General operating conditions: Duration of use: 8 hours/day; Emission days per year: <= 360 days per year;			
Risk management measures	Under the operational conditions described above the following risk management measures apply: General risk management measures: Human health: Goggles - Chemical resistant; Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour); Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Refer to Section 8 of the SDS for specific glove material.; Environmental: None needed; ; The following task-specific risk management measures apply in addition to those listed above: Task: PROC07; Human Health; Local exhaust ventilation;			
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	1			
Prediction of exposure	Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.			

1. Title				
Substance identification	acetone; EC No. 200-662-2; CAS Nbr 67-64-1;			
Exposure Scenario Name	Professional Use of Adhesives and Sealants			
Lifecycle Stage	Widespread use by professional workers			
Contributing activities	PROC 11 -Non industrial spraying ERC 08d -Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)			
Processes, tasks and activities covered	Spraying of substances/mixtures.			
2. Operational conditions and risk mana				
Operating Conditions	Physical state:Liquid. General operating conditions: Duration of use: 8 hours/day; Emission days per year: <= 360 days per year;			
Risk management measures	Under the operational conditions described above the following risk management measures apply: General risk management measures: Human health: Goggles - Chemical resistant; Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour); Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Refer to Section 8 of the SDS for specific glove material.; Environmental: None needed; ; The following task-specific risk management measures apply in addition to those listed above: Task: PROC11; Human Health; Local exhaust ventilation;			
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	10 oction 15 of main obts for disposal instructions.			
Prediction of exposure	Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.			

1. Title	
Substance identification	cyclohexane; EC No. 203-806-2; CAS Nbr 110-82-7;
Exposure Scenario Name	Professional Use of Adhesives and Sealants
Lifecycle Stage	Widespread use by professional workers
Contributing activities	PROC 10 -Roller application or brushing PROC 11 -Non industrial spraying PROC 13 -Treatment of articles by dipping and pouring ERC 08a -Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) ERC 08d -Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)
Processes, tasks and activities covered	Application of product with a roller or brush. Application of product with applicator gun. Spraying of substances/mixtures.
2. Operational conditions and risk management measures	
Operating Conditions	Physical state:Liquid.

General operating conditions: Assumes use at not more than 20°C above ambient temperature; Duration of use: 8 hours/day; Indoor use; Outdoor use; Task: PROC10; Indoors with good general ventilation;
Duration of use: 8 hours/day; Indoor use; Outdoor use; Task: PROC10;
Indoor use; Outdoor use; Task: PROC10;
Outdoor use; Task: PROC10;
Task: PROC10;
Indoors with good general ventilation;
Tooks Indoor enveying
Task: Indoor spraying; Handle substance within a predominantly closed system provided with extract
ventilation;
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;
The following task-specific risk management measures apply in addition to those
listed above:
Task: PROC10;
Human Health;
Air-purifying Half-Mask (with gas/vapour-cartridge, that can be combined with a
particulate filter) (APF 10);
r
Task: PROC11;
Human Health;
Air-purifying Half-Mask (with gas/vapour-cartridge, that can be combined with a
particulate filter) (APF 10);
Task: PROC13;
Human Health;
Provide extract ventilation to points where emissions occur;
Waste management measures Send to a municipal sewage treatment plant;
2
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.

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