



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 Face Seal Cleaner 105 (new)

Product Identification Numbers

UU-0016-2245-3

7100050720

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

Identified uses

Clean PPE

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

+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:

This material is not classified as hazardous according to Regulation (EC) No. 1272/2008, as amended, on classification, labelling, and packaging of substances and mixtures.

2.2. Label elements

CLP REGULATION (EC) No 1272/2008

Not applicable

SUPPLEMENTAL INFORMATION:**Supplemental Hazard Statements:**

EUH210 Safety data sheet available on request.

EUH208 Contains P-MENTHANE, 1,8-EPOXY-. | LINALYL ACETATE. | Alcohols, C10-16, ethoxylated, sulphosuccinates, disodium salts. | 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one. | 3-iodo-2-propynyl butylcarbamate. May produce an allergic reaction.

Information required per Regulation (EU) No 528/2012 on Biocidal Products:

Contains a biocidal product (preservative): IPBC. Risk of skin sensitization.

Notes on labelling

Updated per Regulation (EC) No. 648/2004 on detergents.

Ingredients required per 648/2004 (not required on industrial label): <5%: Anionic surfactants, non-ionic surfactants.

Contains: Perfumes, DMDM HYDANTOIN, IODOPROPYNYL BUTYLCARBAMATE.

2.3. Other hazards

None known.

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

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]
Water	(CAS-No.) 7732-18-5 (EC-No.) 231-791-2	80 - 100	Substance not classified as hazardous
propan-2-ol	(CAS-No.) 67-63-0 (EC-No.) 200-661-7 (REACH-No.) 01-2119457558-25	< 10	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
Alcohols, C10-16, ethoxylated, sulphosuccinates, disodium salts	(CAS-No.) 68815-56-5 (EC-No.) 500-232-7	< 2	Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412
3-iodo-2-propynyl butylcarbamate	(CAS-No.) 55406-53-6 (EC-No.) 259-627-5	<= 0.1	Acute Tox. 3, H331 Acute Tox. 4, H302 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 1, H372 Aquatic Acute 1, H400,M=10 Aquatic Chronic 1, H410,M=1
P-MENTHANE, 1,8-EPOXY-	(CAS-No.) 470-82-6 (EC-No.) 207-431-5	< 0.5	Flam. Liq. 3, H226 Skin Sens. 1B, H317
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-	(CAS-No.) 54464-57-2	< 0.5	Skin Sens. 1B, H317

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tetramethyl-2-naphthyl)ethan-1-one	(EC-No.) 259-174-3		Aquatic Chronic 1, H410,M=1
LINALYL ACETATE	(CAS-No.) 115-95-7 (EC-No.) 204-116-4	<= 0.1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317

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. If you feel unwell, get medical attention.

Skin contact

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye contact

If exposed, flush eyes with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms develop, 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

Not applicable.

SECTION 5: Fire-fighting measures**5.1. Extinguishing media**

Material will not burn.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products**Substance**

Carbon monoxide
Carbon dioxide.
Irritant vapours or gases.

Condition

During combustion.
During combustion.
During combustion.

5.3. Advice for fire-fighters

No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate area. 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. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up

Contain spill. 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. Place in a closed 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

Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Keep away from reactive metals (eg. Aluminium, zinc etc.) to avoid the formation of hydrogen gas that could create an explosion hazard.

7.2. Conditions for safe storage including any incompatibilities

Store away from acids. Store away from strong bases. 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
propan-2-ol	67-63-0	Ireland OELs	TWA(8 hours):200 ppm;STEL(15 minutes):400 ppm	SKIN

Ireland OELs : Ireland. OELs
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

Biological limit values

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

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

8.2. Exposure controls

8.2.1. Engineering controls

No engineering controls required.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

None required.

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

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

Material	Thickness (mm)	Breakthrough Time
Polymer laminate	>0.3	=>8 hours
Neoprene.	0.5	4-8 hours

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

Applicable Norms/Standards

Use gloves tested to EN 374

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

Apron - polymer laminate

Respiratory protection

Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid. (Towelette Saturated in Liquid)
Specific Physical Form:	Towelette saturated in Liquid
Colour	Colourless, White
Odor	Alcohol
Odour threshold	<i>No data available.</i>
Melting point/freezing point	<i>No data available.</i>
Boiling point/boiling range	100 °C
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	<i>No data available.</i>
Flammable Limits(UEL)	<i>No data available.</i>
Flash point	<i>No data available.</i>
Autoignition temperature	<i>No data available.</i>
Decomposition temperature	<i>No data available.</i>
pH	6

Kinematic Viscosity	<i>No data available.</i>
Water solubility	<i>No data available.</i>
Solubility- non-water	<i>No data available.</i>
Partition coefficient: n-octanol/water	<i>No data available.</i>
Vapour pressure	<i>No data available.</i>
Density	<i>No data available.</i>
Relative density	<i>No data available.</i>
Relative Vapour Density	<i>No data available.</i>

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds	<i>No data available.</i>
Evaporation rate	<i>No data available.</i>

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

Not determined

10.5 Incompatible materials

Accelerators

Aluminium or magnesium powder and high/shear temperature conditions.

Alkali and alkaline earth metals.

Finely divided active metals

Reactions with metals in powder form occur from 370 °C onwards.

Reactive metals

Reducing agents.

Strong acids.

Strong bases.

Strong oxidising agents.

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

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin contact

Contact with the skin during product use is not expected to result in significant irritation. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye contact

Contact with the eyes during product use is not expected to result in significant irritation.

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
propan-2-ol	Dermal	Rabbit	LD50 12,870 mg/kg
propan-2-ol	Inhalation-Vapour (4 hours)	Rat	LC50 72.6 mg/l
propan-2-ol	Ingestion	Rat	LD50 4,710 mg/kg
Alcohols, C10-16, ethoxylated, sulphosuccinates, disodium salts	Ingestion	Mouse	LD50 > 540 mg/kg
P-MENTHANE, 1,8-EPOXY-	Ingestion	Mouse	LD50 3,849 mg/kg
3-iodo-2-propynyl butylcarbamate	Dermal	Rabbit	LD50 > 2,000 mg/kg
LINALYL ACETATE	Dermal	Rabbit	LD50 5,610 mg/kg
3-iodo-2-propynyl butylcarbamate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.67 mg/l
3-iodo-2-propynyl butylcarbamate	Ingestion	Rat	LD50 1,056 mg/kg
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	Ingestion	Rat	LD50 > 5,000 mg/kg
LINALYL ACETATE	Ingestion	Rat	LD50 > 9,000 mg/kg
P-MENTHANE, 1,8-EPOXY-	Dermal	Rat	LD50 > 2,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
propan-2-ol	Multiple animal species	No significant irritation
Alcohols, C10-16, ethoxylated, sulphosuccinates, disodium salts	In vitro data	Corrosive
3-iodo-2-propynyl butylcarbamate	Rabbit	Minimal irritation
LINALYL ACETATE	Rabbit	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
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propan-2-ol	Rabbit	Severe irritant
Alcohols, C10-16, ethoxylated, sulposuccinates, disodium salts	In vitro data	Corrosive
3-iodo-2-propynyl butylcarbamate	Rabbit	Corrosive
LINALYL ACETATE	Rabbit	Severe irritant

Skin Sensitisation

Name	Species	Value
propan-2-ol	Guinea pig	Not classified
Alcohols, C10-16, ethoxylated, sulposuccinates, disodium salts	In vitro data	Sensitising
3-iodo-2-propynyl butylcarbamate	Multiple animal species	Sensitising
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	Human and animal	Sensitising
LINALYL ACETATE	Mouse	Sensitising
P-MENTHANE, 1,8-EPOXY-	Mouse	Sensitising

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
propan-2-ol	In Vitro	Not mutagenic
propan-2-ol	In vivo	Not mutagenic
Alcohols, C10-16, ethoxylated, sulposuccinates, disodium salts	In Vitro	Not mutagenic
3-iodo-2-propynyl butylcarbamate	In Vitro	Not mutagenic
3-iodo-2-propynyl butylcarbamate	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
propan-2-ol	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
3-iodo-2-propynyl butylcarbamate	Ingestion	Mouse	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test result	Exposure Duration
propan-2-ol	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	2 generation
propan-2-ol	Ingestion	Not classified for male reproduction	Rat	NOAEL 500 mg/kg/day	2 generation
propan-2-ol	Ingestion	Not classified for development	Rat	NOAEL 400 mg/kg/day	during organogenesis
propan-2-ol	Inhalation	Not classified for development	Rat	LOAEL 9 mg/l	during gestation
3-iodo-2-propynyl butylcarbamate	Ingestion	Not classified for female reproduction	Rat	NOAEL 37.5 mg/kg/day	2 generation
3-iodo-2-propynyl butylcarbamate	Ingestion	Not classified for male reproduction	Rat	NOAEL 37.5 mg/kg/day	2 generation
3-iodo-2-propynyl butylcarbamate	Ingestion	Not classified for development	Rat	NOAEL 50 mg/kg/day	during organogenesis

Target Organ(s)**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
propan-2-ol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
propan-2-ol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
propan-2-ol	Inhalation	auditory system	Not classified	Guinea pig	NOAEL 13.4 mg/l	24 hours
propan-2-ol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
Alcohols, C10-16, ethoxylated, sulphosuccinates, disodium salts	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL not available	
3-iodo-2-propynyl butylcarbamate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available.	
LINALYL ACETATE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
propan-2-ol	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 12.3 mg/l	24 months
propan-2-ol	Inhalation	nervous system	Not classified	Rat	NOAEL 12 mg/l	13 weeks
propan-2-ol	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 400 mg/kg/day	12 weeks
3-iodo-2-propynyl butylcarbamate	Dermal	skin heart hematopoietic system liver eyes kidney and/or bladder respiratory system	Not classified	Rat	NOAEL 500 mg/kg/day	90 days
3-iodo-2-propynyl butylcarbamate	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 0.00116 mg/l	90 days
3-iodo-2-propynyl butylcarbamate	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 vascular system	Not classified	Rat	NOAEL 0.00625 mg/l	90 days
3-iodo-2-propynyl butylcarbamate	Ingestion	liver hematopoietic system eyes	Not classified	Rat	NOAEL 125 mg/kg/day	90 days

Aspiration Hazard

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

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
propan-2-ol	67-63-0	Bacteria	Experimental	16 hours	LOEC	1,050 mg/l
propan-2-ol	67-63-0	Green algae	Experimental	72 hours	EC50	>1,000 mg/l
propan-2-ol	67-63-0	Invertebrate	Experimental	24 hours	LC50	>10,000 mg/l
propan-2-ol	67-63-0	Medaka	Experimental	96 hours	LC50	>100 mg/l
propan-2-ol	67-63-0	Water flea	Experimental	48 hours	EC50	>1,000 mg/l
propan-2-ol	67-63-0	Green algae	Experimental	72 hours	NOEC	1,000 mg/l
propan-2-ol	67-63-0	Water flea	Experimental	21 days	NOEC	100 mg/l
Alcohols, C10-16, ethoxylated, sulphosuccinates, disodium salts	68815-56-5	Green algae	Experimental	72 hours	EC50	3.38 mg/l
Alcohols, C10-16, ethoxylated, sulphosuccinates, disodium salts	68815-56-5	Water flea	Experimental	48 hours	EC50	4.04 mg/l
Alcohols, C10-16, ethoxylated, sulphosuccinates, disodium salts	68815-56-5	Green algae	Experimental	72 hours	NOEC	0.462 mg/l
3-iodo-2-propynyl butylcarbamate	55406-53-6	Activated sludge	Experimental	3 hours	EC50	44 mg/l
3-iodo-2-propynyl butylcarbamate	55406-53-6	Green algae	Experimental	72 hours	ErC50	0.053 mg/l
3-iodo-2-propynyl butylcarbamate	55406-53-6	Rainbow trout	Experimental	96 hours	LC50	0.067 mg/l
3-iodo-2-propynyl butylcarbamate	55406-53-6	Water flea	Experimental	48 hours	LC50	0.645 mg/l
3-iodo-2-propynyl butylcarbamate	55406-53-6	Fathead minnow	Experimental	35 days	NOEC	0.0084 mg/l
3-iodo-2-propynyl butylcarbamate	55406-53-6	Green algae	Experimental	72 hours	ErC10	0.013 mg/l
3-iodo-2-propynyl butylcarbamate	55406-53-6	Water flea	Experimental	21 days	NOEC	0.0499 mg/l
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	54464-57-2	Bluegill	Analogous Compound	96 hours	LC50	1.3 mg/l
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	54464-57-2	Green algae	Analogous Compound	72 hours	EC50	>2.6 mg/l

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1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	54464-57-2	Water flea	Analogous Compound	48 hours	EC50	1.38 mg/l
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	54464-57-2	Green algae	Analogous Compound	72 hours	NOEC	2.6 mg/l
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	54464-57-2	Water flea	Analogous Compound	21 days	NOEC	0.028 mg/l
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	54464-57-2	Zebra Fish	Analogous Compound	30 days	NOEC	0.16 mg/l
P-MENTHANE, 1,8-EPOXY-	470-82-6	Activated sludge	Experimental	3 hours	EC50	>100 mg/l
P-MENTHANE, 1,8-EPOXY-	470-82-6	Green algae	Experimental	96 hours	EC50	>74 mg/l
P-MENTHANE, 1,8-EPOXY-	470-82-6	Rainbow trout	Experimental	96 hours	LC50	57 mg/l
P-MENTHANE, 1,8-EPOXY-	470-82-6	Water flea	Experimental	48 hours	EC50	>100 mg/l
P-MENTHANE, 1,8-EPOXY-	470-82-6	Green algae	Experimental	96 hours	NOEC	37 mg/l
LINALYL ACETATE	115-95-7	Common Carp	Experimental	96 hours	LC50	11 mg/l
LINALYL ACETATE	115-95-7	Green algae	Experimental	72 hours	ErC50	16 mg/l
LINALYL ACETATE	115-95-7	Water flea	Experimental	48 hours	EC50	6.2 mg/l
LINALYL ACETATE	115-95-7	Green algae	Experimental	72 hours	NOEC	1.2 mg/l
LINALYL ACETATE	115-95-7	Activated sludge	Experimental	3 hours	EC50	415 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
propan-2-ol	67-63-0	Experimental Biodegradation	14 days	BOD	86 %BOD/ThOD	OECD 301C - MITI test (I)
Alcohols, C10-16, ethoxylated, sulphosuccinates, disodium salts	68815-56-5	Experimental Biodegradation	28 days	CO2 evolution	67 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
3-iodo-2-propynyl butylcarbamate	55406-53-6	Experimental Biodegradation	28 days	BOD	21 %BOD/ThOD	OECD 301F - Manometric respirometry
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	54464-57-2	Analogous Compound Biodegradation	28 days	BOD	0 %BOD/ThOD	OECD 301C - MITI test (I)
P-MENTHANE, 1,8-EPOXY-	470-82-6	Experimental Biodegradation	28 days	BOD	82 %BOD/ThOD	OECD 301F - Manometric respirometry
P-MENTHANE, 1,8-EPOXY-	470-82-6	Estimated Photolysis		Photolytic half-life (in air)	1.2 days (t 1/2)	
LINALYL ACETATE	115-95-7	Experimental Biodegradation	28 days	BOD	76 %BOD/ThOD	OECD 301F - Manometric respirometry
LINALYL ACETATE	115-95-7	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	1 days (t 1/2)	OECD 111 Hydrolysis func of pH

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
propan-2-ol	67-63-0	Experimental Bioconcentration		Log Kow	0.05	

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Alcohols, C10-16, ethoxylated, sulphosuccinates, disodium salts	68815-56-5	Modeled Bioconcentration		Log Kow	1.31	ACD/Labs ChemSketch™
3-iodo-2-propynyl butylcarbamate	55406-53-6	Experimental Bioconcentration		Log Kow	2.81	
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	54464-57-2	Analogous Compound BCF - Fish	35 days	Bioaccumulation factor	603	OECD305-Bioconcentration
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	54464-57-2	Analogous Compound Bioconcentration		Log Kow	5.7	OECD 117 log Kow HPLC method
P-MENTHANE, 1,8-EPOXY-	470-82-6	Experimental Bioconcentration		Log Kow	3.4	
LINALYL ACETATE	115-95-7	Experimental Bioconcentration		Log Kow	3.9	OECD 107 log Kow shke flsk mtd

12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
Alcohols, C10-16, ethoxylated, sulphosuccinates, disodium salts	68815-56-5	Modeled Mobility in Soil	Koc	1 l/kg	ACD/Labs ChemSketch™
3-iodo-2-propynyl butylcarbamate	55406-53-6	Experimental Mobility in Soil	Koc	126	
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	54464-57-2	Analogous Compound Mobility in Soil	Koc	13,183 l/kg	
P-MENTHANE, 1,8-EPOXY-	470-82-6	Experimental Mobility in Soil	Koc	214 l/kg	OECD 121 Estim. of Koc by HPLC
LINALYL ACETATE	115-95-7	Modeled Mobility in Soil	Koc	1,039 l/kg	Episuite™

12.5. Results of the PBT and vPvB assessment

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

12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

No information available.

The surfactant(s) contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

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

Dispose of waste product in a permitted industrial waste 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)

15 02 02* Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances

SECTION 14: Transportation information

Not hazardous for transportation.

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 UN number or ID number	No data available.	No data available.	No data available.
14.2 UN proper shipping name	No data available.	No data available.	No data available.
14.3 Transport hazard class(es)	No data available.	No data available.	No data available.
14.4 Packing group	No data available.	No data available.	No data available.
14.5 Environmental hazards	No data available.	No data available.	No data available.
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 Marine Transport in bulk according to IMO instruments	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 Classification Code	No data available.	No data available.	No data available.
IMDG Segregation Code	No data available.	No data available.	No data available.

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

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Global inventory status**

Contact 3M for more information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA.

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Seveso hazard categories, Annex 1, Part 1

None

Seveso named dangerous substances, Annex 1, Part 2

Dangerous Substances	Identifier(s)	Qualifying quantity (tonnes) for the application of	
		Lower-tier requirements	Upper-tier requirements
3-iodo-2-propynyl butylcarbamate	55406-53-6	50	200
propan-2-ol	67-63-0	10	50

Regulation (EU) No 649/2012

No chemicals listed

15.2. Chemical Safety Assessment

A chemical safety assessment has been carried out for this substance/mixture in accordance with Regulation (EC) No 1907/2006, as amended.

SECTION 16: Other information**List of relevant H statements**

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Revision information:

Section 3: Composition/ Information of ingredients table information was modified.

Section 4: First aid for eye contact information information was modified.

Section 9: All Properties information was deleted.

Section 9: Vapour density value information was modified.

Section 11: Carcinogenicity Table information was modified.

Section 11: Germ Cell Mutagenicity Table information was modified.

Section 11: Reproductive Toxicity Table information was modified.

Section 11: Target Organs - Repeated Table information was modified.

Section 11: Target Organs - Single Table information was modified.

Section 12: Component ecotoxicity information information was modified.

Section 12: Mobility in soil information information was modified.

Section 12: Persistence and Degradability information information was modified.

Section 12: Biocumulative potential information information was modified.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into the European Union, you are responsible for all regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration.

3M Ireland MSDSs are available at www.3M.com