Safety Data Sheet

Document group:	18-1830-1	**Version number:**	13.05
Revision date:	12/12/2022	**Supersedes date:**	02/11/2020

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 Prep and Blend Liquid 09308.

Product Identification Numbers
UU-0063-8414-1

7100095763

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

Identified uses
Automotive.

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.

CLASSIFICATION:
Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319

For full text of H phrases, see Section 16.

2.2. Label elements
CLP REGULATION (EC) No 1272/2008

SIGNAL WORD
WARNING.

Symbols
GHS07 (Exclamation mark) |

Pictograms

HAZARD STATEMENTS:

H319	Causes serious eye irritation.

PRECAUTIONARY STATEMENTS

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.

4% of the mixture consists of components of unknown acute oral toxicity.
4% of the mixture consists of components of unknown acute dermal toxicity.

Contains 4% of components with unknown hazards to the aquatic environment.

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	Mixture	60 - 90	Substance not classified as hazardous
PUMICE	(CAS-No.) 1332-09-8	10 - 30	Substance not classified as hazardous
UNKNOWN PROPRIETARY MATERIAL	Mixture	<= 1.5	Substance not classified as hazardous
Surfactant blend	Mixture	1 - 5	Substance not classified as hazardous
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	(EC-No.) 918-167-1 (REACH-No.) 01-2119472146-39	1 - 5	Flam. Liq. 3, H226 Aquatic Chronic 4, H413 Asp. Tox. 1, H304

			EUH066
morpholine	(CAS-No.) 110-91-8 (EC-No.) 203-815-1	0.1 - 0.5	Flam. Liq. 3, H226 Acute Tox. 3, H311 Acute Tox. 4, H332 Acute Tox. 4, H302 Skin Corr. 1B, H314
Surfactant	Trade Secret	1 - 5	Substance not classified as hazardous
propan-1-ol	(CAS-No.) 71-23-8 (EC-No.) 200-746-9 (REACH-No.) 01-2119486761-29	1 - 5	Flam. Liq. 2, H225 Eye Dam. 1, H318 STOT SE 3, H336
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	(CAS-No.) 69011-36-5 (EC-No.) 500-241-6	0.1 - 0.5	Acute Tox. 4, H302 Eye Dam. 1, H318

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

Specific Concentration Limits

Ingredient	Identifier(s)	Specific Concentration Limits
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	(CAS-No.) 69011-36-5 (EC-No.) 500-241-6	(C >= 10%) Eye Dam. 1, H318 (5% =< C < 10%) Eye Irrit. 2, H319

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

Eye contact
Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, 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

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide	During combustion.
Carbon dioxide.	During combustion.

5.3. Advice for fire-fighters
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. 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. Observe precautions from other sections.

6.2. Environmental precautions
Avoid release to the environment.

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
For industrial/occupational use only. Not for consumer sale or use. Keep out of reach of children. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities
Store away from acids. Store away from oxidising agents. Store away from areas where product may come into contact with food or pharmaceuticals.

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
morpholine	110-91-8	Ireland OELs	TWA(8 hours):36 mg/m3(10 ppm);TWA(8 hours):10 ppm(36 mg/m3);STEL(15 minutes):72 mg/m3(20 ppm);STEL(15 minutes):20 ppm(72 mg/m3)	SKIN
propan-1-ol	71-23-8	Ireland OELs	TWA(8 hours):100 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
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
None required.

Skin/hand protection
No chemical protective gloves are required.

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

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: filter types A & P

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Thixotropic liquid.
Colour	Grey
Odor	Solvent
Odour threshold	*No data available.*
Melting point/freezing point	*No data available.*

Boiling point/boiling range	*No data available.*
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	*No data available.*
Flammable Limits(UEL)	*No data available.*
Flash point	*No data available.*
Autoignition temperature	*No data available.*
Decomposition temperature	*No data available.*
pH	9.1 - 9.6 Units not available or not applicable.
Kinematic Viscosity	33,333 mm²/sec
Water solubility	Nil
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Vapour pressure	*No data available.*
Density	0.09 g/ml - 0.13 g/ml
Relative density	0.09 - 0.13 [*Ref Std:*WATER=1]
Relative Vapour Density	*No data available.*

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds	*No data available.*
Evaporation rate	*No data available.*

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
High shear and high temperature conditions
Sparks and/or flames.

10.5 Incompatible materials
Alkali and alkaline earth metals.
Strong acids.
Strong oxidising agents.

10.6 Hazardous decomposition products

Substance	**Condition**
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.

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	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation-Vapour(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
PUMICE	Dermal	Rabbit	LD50 > 5,000 mg/kg
PUMICE	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
PUMICE	Ingestion	Rat	LD50 > 5,110 mg/kg
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Inhalation-Vapour	Professional judgement	LC50 estimated to be 20 - 50 mg/l
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Dermal	Rabbit	LD50 > 5,000 mg/kg
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Ingestion	Rat	LD50 > 5,000 mg/kg
Surfactant	Dermal	Not available	LD50 > 5,000 mg/kg
Surfactant	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.1 mg/l
Surfactant	Ingestion	Rat	LD50 20,000 mg/kg
propan-1-ol	Dermal	Rabbit	LD50 4,000 mg/kg
propan-1-ol	Inhalation-Vapour (4 hours)	Rat	LC50 > 34 mg/l
propan-1-ol	Ingestion	Rat	LD50 estimated to be 2,000 - 5,000 mg/kg
morpholine	Dermal	Rabbit	LD50 310 mg/kg
morpholine	Inhalation-Vapour	Rat	LC50 estimated to be 10 - 20 mg/l
morpholine	Ingestion	Rat	LD50 1,050 mg/kg
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	Ingestion	Rat	LD50 1,350 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
PUMICE	Rabbit	No significant irritation
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Rabbit	Mild irritant
Surfactant	Rabbit	No significant irritation
propan-1-ol	Rabbit	Minimal irritation
morpholine	official classification	Corrosive
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	Rabbit	Mild irritant

Serious Eye Damage/Irritation

Name	Species	Value
PUMICE	Rabbit	No significant irritation
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Rabbit	Mild irritant
Surfactant	Rabbit	No significant irritation
propan-1-ol	Rabbit	Severe irritant
morpholine	Rabbit	Corrosive
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	Rabbit	Corrosive

Skin Sensitisation

Name	Species	Value
PUMICE	Human and animal	Not classified
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Guinea pig	Not classified
Surfactant	Guinea pig	Not classified
propan-1-ol	Guinea pig	Not classified
morpholine	Guinea pig	Not classified
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	Human	Not classified

Respiratory Sensitisation

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

Germ Cell Mutagenicity

Name	Route	Value
PUMICE	In Vitro	Not mutagenic
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	In Vitro	Not mutagenic
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	In vivo	Not mutagenic
Surfactant	In Vitro	Not mutagenic
propan-1-ol	In Vitro	Some positive data exist, but the data are not sufficient for classification
morpholine	In Vitro	Some positive data exist, but the data are not sufficient for classification
morpholine	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
PUMICE	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification

Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Not specified.	Not available	Not carcinogenic
Surfactant	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
propan-1-ol	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
morpholine	Ingestion	Multiple animal species	Not carcinogenic
morpholine	Inhalation	Rat	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
PUMICE	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
PUMICE	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
PUMICE	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Not specified.	Not classified for female reproduction	Rat	NOAEL Not available	premating & during gestation
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Not specified.	Not classified for male reproduction	Rat	NOAEL Not available	28 days
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	Not specified.	Not classified for development	Rat	NOAEL Not available	during gestation
Surfactant	Ingestion	Not classified for female reproduction	Rat	NOAEL 6,666 mg/kg/day	3 generation
Surfactant	Ingestion	Not classified for male reproduction	Rat	NOAEL 6,666 mg/kg/day	3 generation
Surfactant	Ingestion	Not classified for development	Rat	NOAEL 5,000 mg/kg/day	during organogenesis
propan-1-ol	Inhalation	Not classified for male reproduction	Rat	NOAEL 8.6 mg/l	6 weeks
propan-1-ol	Inhalation	Not classified for development	Rat	NOAEL 8.6 mg/l	during gestation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
propan-1-ol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Mouse	NOAEL 5 mg/l	4 hours
propan-1-ol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL Not available	
propan-1-ol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
morpholine	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration

PUMICE	Inhalation	respiratory system | silicosis	Not classified	Human	NOAEL Not available	occupational exposure
Surfactant	Ingestion	heart | endocrine system | gastrointestinal tract | bone, teeth, nails, and/or hair | hematopoietic system | liver | immune system | nervous system | kidney and/or bladder | respiratory system	Not classified	Rat	NOAEL 4,132 mg/kg/day	90 days
propan-1-ol	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 70 mg/kg/day	83 weeks
propan-1-ol	Ingestion	liver	Not classified	Rat	LOAEL 70 mg/kg/day	83 weeks
morpholine	Dermal	liver | kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Guinea pig	LOAEL 900 mg/kg/day	13 days
morpholine	Dermal	hematopoietic system	Not classified	Guinea pig	NOAEL 900 mg/kg/day	13 days
morpholine	Inhalation	eyes	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
morpholine	Inhalation	respiratory system	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 0.09 mg/l	13 weeks
morpholine	Inhalation	liver | kidney and/or bladder	Not classified	Rat	LOAEL 64 mg/l	5 days
morpholine	Inhalation	heart | endocrine system	Not classified	Rat	NOAEL 0.9 mg/l	13 weeks
morpholine	Inhalation	gastrointestinal tract | nervous system	Not classified	Rat	NOAEL 0.53 mg/l	104 weeks
morpholine	Ingestion	kidney and/or bladder	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 160 mg/kg/day	30 days
morpholine	Ingestion	liver | respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 160 mg/kg/day	30 days
morpholine	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 800 mg/kg/day	30 days
morpholine	Ingestion	endocrine system	Not classified	Rat	NOAEL 323 mg/kg/day	4 weeks

Aspiration Hazard

Name	Value
Hydrocarbons, C11-C12, 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
PUMICE	1332-09-8	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	918-167-1	Green algae	Estimated	72 hours	EL50	>1,000 mg/l
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	918-167-1	Rainbow trout	Estimated	96 hours	LL50	>1,000 mg/l
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	918-167-1	Water flea	Estimated	48 hours	EL50	>1,000 mg/l
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	918-167-1	Green algae	Estimated	72 hours	NOEL	1,000 mg/l
morpholine	110-91-8	Activated sludge	Experimental	30 minutes	EC20	>1,000 mg/l
morpholine	110-91-8	Fish	Experimental	96 hours	LC50	100 mg/l
morpholine	110-91-8	Green algae	Experimental	96 hours	ErC50	28 mg/l
morpholine	110-91-8	Rainbow trout	Experimental	96 hours	LC50	180 mg/l
morpholine	110-91-8	Water flea	Experimental	48 hours	EC50	45 mg/l
morpholine	110-91-8	Green algae	Experimental	96 hours	NOEC	10 mg/l
morpholine	110-91-8	Water flea	Experimental	21 days	NOEC	5 mg/l
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	Bacteria	Estimated	17 hours	EC10	>10,000 mg/l
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	N/A	Data not available or insufficient for classification	N/A	N/A	NA
propan-1-ol	71-23-8	Activated sludge	Experimental	3 hours	IC50	>1,000 mg/l
propan-1-ol	71-23-8	Algae or other aquatic plants	Experimental	96 hours	EC50	4,480 mg/l
propan-1-ol	71-23-8	Fathead minnow	Experimental	96 hours	LC50	4,555 mg/l
propan-1-ol	71-23-8	Fish	Experimental	96 hours	LC50	3,000 mg/l
propan-1-ol	71-23-8	Water flea	Experimental	48 hours	EC50	3,642 mg/l
propan-1-ol	71-23-8	Water flea	Experimental	21 days	NOEC	100 mg/l
Surfactant	Trade Secret	Copepod	Analogous Compound	48 hours	LL50	>10,000 mg/l
Surfactant	Trade Secret	Green algae	Analogous Compound	72 hours	EL50	58.84 mg/l
Surfactant	Trade Secret	Zebra Fish	Analogous Compound	96 hours	LC50	>100 mg/l
Surfactant	Trade Secret	Green algae	Analogous Compound	72 hours	EC10	19.05 mg/l
Surfactant	Trade Secret	Water flea	Analogous Compound	21 days	NOEL	10 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
PUMICE	1332-09-8	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	918-167-1	Estimated Biodegradation	28 days	BOD	31.3 %BOD/ThOD	
morpholine	110-91-8	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	93 %removal of DOC	OECD 301E - Modif. OECD Screen
morpholine	110-91-8	Experimental Biodegradation	31 days	Dissolv. Organic Carbon Deplet	98 %removal of DOC	OECD 302B Zahn-Wellens/EVPA
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	Data not availbl-insufficient	N/A	N/A	N/A	N/A
propan-1-ol	71-23-8	Experimental Biodegradation	20 days	BOD	73 %BOD/ThOD	OECD 301D - Closed bottle test
Surfactant	Trade Secret	Experimental Biodegradation	28 days	CO2 evolution	61 %CO2 evolution/THCO2 evolution	ISO 14593 Inorg C Headspace

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
PUMICE	1332-09-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	918-167-1	Estimated BCF - Fish		Bioaccumulation factor	2500	
morpholine	110-91-8	Experimental BCF - Fish	42 days	Bioaccumulation factor	<2.8	OECD305-Bioconcentration
morpholine	110-91-8	Experimental Bioconcentration		Log Kow	-2.55	OECD 107 log Kow shke flsk mtd
Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	69011-36-5	Laboratory BCF - Fish	72 hours	Bioaccumulation factor	232.5	
propan-1-ol	71-23-8	Experimental Bioconcentration		Log Kow	0.2	
Surfactant	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

12.4. Mobility in soil
No test data available.

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.

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty and clean product containers may be disposed as non-hazardous waste. Consult your specific regulations and service providers to determine available options and requirements.

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)

120109* Machining emulsions and solutions free of halogens

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

Carcinogenicity

Ingredient	CAS Nbr	Classification	Regulation
morpholine	110-91-8	Gr. 3: Not classifiable	International Agency for Research on Cancer

Global inventory status
Contact 3M for more information.

DIRECTIVE 2012/18/EU
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
morpholine	110-91-8	10	50
propan-1-ol	71-23-8	10	50

Regulation (EU) No 649/2012
No chemicals listed

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.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.

H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H413	May cause long lasting harmful effects to aquatic life.

Revision information:
EU Section 09: pH information information was added.
Section 1: Emergency telephone information was modified.
Section 03: Composition table % Column heading information was added.
Section 3: Composition/ Information of ingredients table information was modified.
Section 03: SCL table information was added.
Section 03: Substance not applicable information was added.
Section 4: First aid for skin contact information information was modified.
Section 04: Information on toxicological effects information was modified.
Section 8: Occupational exposure limit table information was modified.
OEL Reg Agency Desc information was modified.
Section 9: Evaporation Rate information information was deleted.
Section 9: Explosive properties information information was deleted.
Section 09: Kinematic Viscosity information information was added.
Section 9: Melting point information information was modified.
Section 9: Oxidising properties information information was deleted.
Section 9: pH information information was deleted.
Section 9: Property description for optional properties information was modified.
Section 9: Vapour density value information was added.
Section 9: Vapour density value information was deleted.
Section 9: Viscosity information information was deleted.
Section 11: Acute Toxicity table information was modified.
Section 11: Carcinogenicity Table 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: Skin Corrosion/Irritation Table information was modified.
Section 11: Skin Sensitization Table information was modified.
Section 11: Target Organs - Repeated Table information was added.
Section 11: Target Organs - Repeated Table information was deleted.
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: No Data text for mobility in soil 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 13: Standard Phrase Category Waste GHS 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 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 in bulk – Regulation Data information was added.
Section 14 Marine transport in bulk according to IMO instruments – Main Heading information was added.
Section 14 UN Number Column data information was added.
Section 14 UN Number information was added.
Section 15: Regulations - Inventories information was added.
Section 15: Seveso Substance Text information was added.
Section 2: No PBT/vPvB information available warning information was added.

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