



Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (1907/2006), as amended for GB.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

3M™ FA-188 Foam Additive

Product Identification Numbers

UU-0090-9698-1

7100143605

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

Identified uses

For Industrial Use Only. Not Intended for Use as a Medical Device or Drug. For use as a foam insulation additive.

Restrictions on Use

3M Electronics Materials Solutions Division (EMSD) will not knowingly sample, support, or sell its products for incorporation in medical and pharmaceutical products and applications in which the 3M product will be temporarily or permanently implanted into humans or animals. The customer is responsible for evaluating and determining that a 3M EMSD product is suitable and appropriate for its particular use and intended application. The conditions of evaluation, selection, and use of a 3M product can vary widely and affect the use and intended application of a 3M product. Because many of these conditions are uniquely within the user's knowledge and control, it is essential that the user evaluate and determine whether the 3M product is suitable and appropriate for a particular use and intended application, and complies with all local applicable laws, regulations, standards, and guidance.

1.3. Details of the supplier of the safety data sheet

Address:	3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.
Telephone:	+44 (0)1344 858 000
E Mail:	tox.uk@mmm.com
Website:	www.3M.com/uk

1.4. Emergency telephone number

+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain

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:

Hazardous to the Aquatic Environment (Acute), Category 1 - Aquatic Acute 1; H400

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

The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain

SIGNAL WORD

WARNING.

Symbols

GHS09 (Environment) |

Pictograms



HAZARD STATEMENTS:

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P273 Avoid release to the environment.

Response:

P391 Collect spillage.

3% of the mixture consists of components of unknown acute oral toxicity.

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

Ingredient	Identifier(s)	%	Classification according to Regulation (EC) No. 1272/2008 [CLP], as amended for GB
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	(CAS-No.) 3709-71-5 (EC-No.) 807-113-1	97 - 100	Aquatic Acute 1, H400,M=10 Aquatic Chronic 2, H411
Hexafluoropropene trimer	(CAS-No.) 6792-31-0	<= 3	STOT SE 3, H335 Aquatic Acute 1, H400,M=10
2-Pentene, 1,1,1,3,4,4,5,5,5-nonafluoro-2-(trifluoromethyl)-	(CAS-No.) 1584-03-8 (EC-No.) 216-436-1	< 0.1	Acute Tox. 1, H330 Aquatic Acute 1, H400,M=10 Aquatic Chronic 2, H411

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

3.2. Mixtures

Not applicable

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

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

Do not induce vomiting. 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

Use a fire fighting agent suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Exposure to extreme heat can give rise to thermal decomposition.

Hazardous Decomposition or By-Products

Substance

Carbon monoxide

Condition

During combustion.

Carbon dioxide.
Hydrogen Fluoride
Toxic vapour, gas, particulate.

During combustion.
During combustion.
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. 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 inhalation of thermal decomposition products. For industrial/occupational use only. Not for consumer sale or use. 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.

7.2. Conditions for safe storage including any incompatibilities

Store away from heat. Store away from strong bases. Store away from amines.

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
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	3709-71-5	Manufacturer determined	TWA:6 ppm	

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.

8.2. Exposure controls**8.2.1. Engineering controls**

For those situations where the material might be exposed to extreme overheating due to misuse or equipment failure, use with appropriate local exhaust ventilation sufficient to maintain levels of thermal decomposition products below their exposure guidelines. 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

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

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

Material	Thickness (mm)	Breakthrough Time
Neoprene.	No data available	No data available

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.

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:

For those situations where the material might be exposed to extreme overheating due to misuse or equipment failure, use a positive pressure supplied-air respirator.

Half facepiece or full facepiece air-purifying respirator suitable for organic vapours

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 type A

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Colour	Colourless
Odor	Odourless
Odour threshold	<i>No data available.</i>
Melting point/freezing point	< -80 °C
Boiling point/boiling range	47.3 °C [@ 101,325 Pa]
Flammability	Not applicable.
Flammable Limits(LEL)	None detected
Flammable Limits(UEL)	None detected
Flash point	No flash point
Autoignition temperature	<i>No data available.</i>
Decomposition temperature	<i>No data available.</i>
pH	<i>substance/mixture is non-polar/aprotic</i>
Kinematic Viscosity	0.358 mm ² /sec
Water solubility	0.649 mg/l [@ 22.3 °C]
Solubility- non-water	<i>No data available.</i>
Partition coefficient: n-octanol/water	4.1
Vapour pressure	34.7 kPa [@ 20 °C]
Density	1.6454 g/cm ³ [@ 20 °C]
Relative density	1.6454 [<i>Ref Std: WATER=1</i>]
Relative Vapour Density	<i>No data available.</i>
Particle Characteristics	<i>Not applicable.</i>

9.2. Other information**9.2.2 Other safety characteristics**

EU Volatile Organic Compounds	1,600 g/l
Evaporation rate	<i>No data available.</i>
Molecular weight	300.05
Percent volatile	100 %
Self ignition temperature	405 °C [<i>Details: @ 1004 - 1028 hPa</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

Heat.

10.5 Incompatible materials

Alcohols.

Amines.

Strong bases.

10.6 Hazardous decomposition products**Substance**

None known.

Condition

Refer to section 5.2 for hazardous decomposition products during combustion.

If the product is exposed to extreme conditions of heat from misuse or equipment failure, toxic decomposition products that include hydrogen fluoride and perfluoroisobutylene can occur. Extreme heat arising from situations such as misuse or equipment failure can generate hydrogen fluoride as a decomposition product.

SECTION 11: Toxicological information

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

11.1. Information on hazard classes as defined in the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain.**Signs and Symptoms of Exposure**

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

Inhalation

May be harmful if inhaled. 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

No known health effects.

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
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	Inhalation-Vapour (4 hours)	Rat	LC50 > 21.69 mg/l
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	Ingestion	Rat	LD50 > 2,000 mg/kg
Hexafluoropropene trimer	Inhalation-Vapour (4 hours)	Rat	LC50 > 179 mg/l
2-Pentene, 1,1,1,3,4,4,5,5,5-nonafluoro-2-(trifluoromethyl)-	Inhalation-Vapour (4 hours)	Rat	LC50 0.49 mg/l

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	In vitro data	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	In vitro data	No significant irritation

Skin Sensitisation

Name	Species	Value
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	Mouse	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
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	In Vitro	Not mutagenic

Carcinogenicity

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

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	Inhalation	Not classified for female reproduction	Rat	NOAEL 4.29 mg/l	premating into lactation
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	Inhalation	Not classified for development	Rat	NOAEL 6.74 mg/l	during gestation
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	Ingestion	Not classified for male reproduction	Rat	NOAEL 450 mg/kg/day	28 days
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	Inhalation	Not classified for male reproduction	Rat	NOAEL 4.29 mg/l	25 days

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	Inhalation	respiratory system	Not classified	Rat	NOAEL 21.69 mg/l	4 hours
Hexafluoropropene trimer	Inhalation	respiratory irritation	May cause respiratory irritation	Rat	LOAEL 55.78 mg/l	4 days

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Trans-4-	Inhalation	heart	Some positive data exist, but the	Rat	NOAEL 3.04	90 days

(Trifluoromethyl)perfluoro-2-pentene			data are not sufficient for classification		mg/l	
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	Inhalation	endocrine system hematopoietic system liver kidney and/or bladder respiratory system gastrointestinal tract bone, teeth, nails, and/or hair immune system muscles nervous system eyes	Not classified	Rat	NOAEL 6.76 mg/l	90 days
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	Ingestion	hematopoietic system liver auditory system heart endocrine system bone, teeth, nails, and/or hair bone marrow immune system nervous system eyes kidney and/or bladder respiratory system vascular system	Not classified	Rat	NOAEL 450 mg/kg/day	28 days
Hexafluoropropene trimer	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 55.78 mg/l	4 days
Hexafluoropropene trimer	Inhalation	liver kidney and/or bladder	Not classified	Rat	NOAEL 185.92 mg/l	3 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 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**Chronic aquatic hazard:**

No toxicity at limit of water solubility. Endpoint not reached at limit of water solubility.

No product test data available.

Material	CAS #	Organism	Type	Exposure	Test endpoint	Test result
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	3709-71-5	Green algae	Analogous Compound	72 hours	ErC50	0.035 mg/l
Trans-4-(Trifluoromethyl)p	3709-71-5	Water flea	Analogous Compound	48 hours	EC50	0.014 mg/l

erfluoro-2-pentene						
Trans-4-(Trifluoromethyl)p erfluoro-2-pentene	3709-71-5	Zebra Fish	Endpoint not reached	96 hours	LC50	>100 mg/l
Trans-4-(Trifluoromethyl)p erfluoro-2-pentene	3709-71-5	Zebra Fish	Endpoint not reached	96 hours	LC50	>100 mg/l
Trans-4-(Trifluoromethyl)p erfluoro-2-pentene	3709-71-5	Green algae	Experimental	72 hours	EC50	0.035 mg/l
Trans-4-(Trifluoromethyl)p erfluoro-2-pentene	3709-71-5	Water flea	Experimental	48 hours	EC50	0.014 mg/l
Trans-4-(Trifluoromethyl)p erfluoro-2-pentene	3709-71-5	Green algae	Analogous Compound	72 hours	NOEC	0.017 mg/l
Trans-4-(Trifluoromethyl)p erfluoro-2-pentene	3709-71-5	Green algae	Experimental	72 hours	NOEC	0.017 mg/l
Hexafluoropropene trimer	6792-31-0	Green algae	Analogous Compound	72 hours	EC50	0.035 mg/l
Hexafluoropropene trimer	6792-31-0	Water flea	Analogous Compound	48 hours	EC50	0.014 mg/l
Hexafluoropropene trimer	6792-31-0	Zebra Fish	Analogous Compound	96 hours	No tox obs at lmt of water sol	>100
Hexafluoropropene trimer	6792-31-0	Green algae	Analogous Compound	72 hours	NOEC	0.017 mg/l
2-Pentene, 1,1,1,3,4,4,5,5,5-nonafluoro-2-(trifluoromethyl)-	1584-03-8	Green algae	Analogous Compound	72 hours	EC50	0.035 mg/l
2-Pentene, 1,1,1,3,4,4,5,5,5-nonafluoro-2-(trifluoromethyl)-	1584-03-8	Water flea	Analogous Compound	48 hours	EC50	0.014 mg/l
2-Pentene, 1,1,1,3,4,4,5,5,5-nonafluoro-2-(trifluoromethyl)-	1584-03-8	Zebra Fish	Endpoint not reached	96 hours	LC50	>100 mg/l
2-Pentene, 1,1,1,3,4,4,5,5,5-nonafluoro-2-(trifluoromethyl)-	1584-03-8	Green algae	Analogous Compound	72 hours	NOEC	0.017 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Trans-4-(Trifluoromethyl)p erfluoro-2-pentene	3709-71-5	Analogous Compound Biodegradation	28 days	BOD	<12 %BOD/ThOD	OECD 301D - Closed bottle test
Trans-4-(Trifluoromethyl)p erfluoro-2-pentene	3709-71-5	Experimental Biodegradation	28 days	BOD	<12 %BOD/ThOD	OECD 301D - Closed bottle test
Trans-4-(Trifluoromethyl)p erfluoro-2-pentene	3709-71-5	Analogous Compound Photolysis		Photolytic half-life (in air)	0.57 years (t 1/2)	
Trans-4-(Trifluoromethyl)p erfluoro-2-pentene	3709-71-5	Experimental Photolysis		Photolytic half-life (in air)	0.57 years (t 1/2)	
Hexafluoropropene trimer	6792-31-0	Analogous Compound Biodegradation	28 days	BOD	<12 %BOD/ThOD	OECD 301D - Closed bottle test
Hexafluoropropene trimer	6792-31-0	Analogous Compound Photolysis		Photolytic half-life (in air)	0.57 years (t 1/2)	
2-Pentene,	1584-03-8	Analogous	28 days	BOD	<12 %BOD/ThOD	OECD 301D - Closed bottle

1,1,1,3,4,4,5,5,5-nonafluoro-2-(trifluoromethyl)-		Compound Biodegradation				test
2-Pentene, 1,1,1,3,4,4,5,5,5-nonafluoro-2-(trifluoromethyl)-	1584-03-8	Analogous Compound Photolysis		Photolytic half-life (in air)	0.57 years (t 1/2)	

12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	3709-71-5	Analogous Compound Bioconcentration		Log Kow	4.1	OECD 107 log Kow shke flask mtd
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	3709-71-5	Experimental Bioconcentration		Log Kow	4.1	OECD 107 log Kow shke flask mtd
Hexafluoropropene trimer	6792-31-0	Modeled Bioconcentration		Log Kow	6.8	Episuite™
2-Pentene, 1,1,1,3,4,4,5,5,5-nonafluoro-2-(trifluoromethyl)-	1584-03-8	Analogous Compound Bioconcentration		Log Kow	4.1	OECD 107 log Kow shke flask mtd

12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	3709-71-5	Analogous Compound Mobility in Soil	Koc	2,600 l/kg	OECD 121 Estim. of Koc by HPLC
Trans-4-(Trifluoromethyl)perfluoro-2-pentene	3709-71-5	Estimated Mobility in Soil	Koc	2,600 l/kg	OECD 121 Estim. of Koc by HPLC
Hexafluoropropene trimer	6792-31-0	Modeled Mobility in Soil	Koc	3,000,000 l/kg	Episuite™
2-Pentene, 1,1,1,3,4,4,5,5,5-nonafluoro-2-(trifluoromethyl)-	1584-03-8	Analogous Compound Mobility in Soil	Koc	2,600 l/kg	OECD 121 Estim. of Koc by HPLC

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. Other adverse effects

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

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. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Combustion products will include HF. Facility must be capable of handling halogenated materials. 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)

070103* Organic halogenated solvents, washing liquids and mother liquors
14 06 02* Other halogenated solvents and solvent mixtures

SECTION 14: Transportation information

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 UN number	UN2810	UN2810	UN2810
14.2 UN proper shipping name	TOXIC LIQUID, ORGANIC, N.O.S.(FLUOROALKENE)	TOXIC LIQUID, ORGANIC, N.O.S.(FLUOROALKENE)	TOXIC LIQUID, ORGANIC, N.O.S.(FLUOROALKENE)
14.3 Transport hazard class(es)	6.1	6.1	6.1
14.4 Packing group	III	III	III
14.5 Environmental hazards	Environmentally Hazardous	Not applicable	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 Classification Code	T1	Not applicable.	Not applicable.
IMDG Segregation Code	Not applicable.	Not applicable.	Not applicable.

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 the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

COMAH Regulation, SI 2015/483

Seveso hazard categories, Annex 1, Part 1

Hazard Categories	Qualifying quantity (tonnes) for the application of	
	Lower-tier requirements	Upper-tier requirements
E1 Hazardous to the Aquatic environment	100	200

Seveso named dangerous substances, Annex 1, Part 2
None

Regulation (EU) No 649/2012, as amended for GB

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 for GB.

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

H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Revision information:

GB Section 02: CLP Ingredient table information was deleted.
 GB Section 04: First Aid - Symptoms and Effects (GB CLP) information was deleted.
 GB Section 04: Information on toxicological effects information was modified.
 Section 02: CLP Physical and Health Hazard Statements information was deleted.
 Label: CLP Classification information was modified.
 Label: Graphic information was modified.
 Section 3: Composition/ Information of ingredients table information was modified.
 Section 4: First aid for ingestion (swallowing) information information was modified.
 Section 9: Flammability (solid, gas) information information was deleted.
 Section 09: Flammability information information was added.
 Section 09: Particle Characteristics N/A information was added.
 Section 11: Acute Toxicity table information was modified.
 Section 11: Health Effects - Ingestion information 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: Bioaccumulative potential 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.

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