



## Safety Data Sheet

Copyright, 2023, 3M Company All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

|                        |            |                         |            |
|------------------------|------------|-------------------------|------------|
| <b>Document group:</b> | 20-0405-9  | <b>Version number:</b>  | 10.04      |
| <b>Revision date:</b>  | 30/01/2023 | <b>Supersedes date:</b> | 10/01/2023 |

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™ Novec™ Contact Cleaner

#### Product Identification Numbers

98-0212-3293-3      FF-9200-1180-7

7000031944      7000077014

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

##### Identified uses

Industrial use.

##### Restrictions on Use

For Industrial Use only. Not intended for consumer sale or use. Not intended for use as a medical device or drug.

#### 1.3. Details of the supplier of the safety data sheet

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

Aerosol, Category 3 - Aerosol 3; H229

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.

| Ingredient  | CAS Nbr  | EC No.    | % by Wt  |
|---|----------|-----------|----------|
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane |          | 422-270-2 | 63 - 100 |
| Carbon dioxide.   | 124-38-9 | 204-696-9 | 1 - 5    |

#### HAZARD STATEMENTS:

H229 Pressurised container: may burst if heated.

#### PRECAUTIONARY STATEMENTS

##### Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P251 Do not pierce or burn, even after use.

##### Storage:

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

#### Notes on labelling

Updated per Regulation (EC) No. 648/2004 as amended for Great Britain on detergents.

#### 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], as amended for GB |
|---|--------------------|----------|--|
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | (EC-No.) 422-270-2 | 63 - 100 | Substance not classified as hazardous  |
| Carbon dioxide.   | (CAS-No.) 124-38-9 | 1 - 5    | Liquified gas, H280  |

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

No need for first aid is anticipated. If symptoms develop, remove the affected person to fresh air. 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

Closed containers exposed to heat from fire may build pressure and explode.

### 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

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Ventilate the area with fresh air. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or

if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. 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. Store work clothes separately from other clothing, food and tobacco products. Do not pierce or burn, even after use. No smoking: Smoking while using this product can result in contamination of the tobacco and/or smoke and lead to the formation of hazardous decomposition products.

### 7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store away from strong bases.

### 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.

| <b>Ingredient</b> | <b>CAS Nbr</b> | <b>Agency</b> | <b>Limit type</b>                                    | <b>Additional comments</b> |
|-------------------|----------------|---------------|--|----------------------------|
| Carbon dioxide.   | 124-38-9       | UK HSC        | TWA:9150 mg/m3(5000 ppm);STEL:27400 mg/m3(15000 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

No engineering controls required.

#### 8.2.2. Personal protective equipment (PPE)

##### Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Full face shield.

Indirect vented goggles.

#### *Applicable Norms/Standards*

Use eye/face protection conforming to EN 166

#### **Skin/hand protection**

No chemical protective gloves are required.

#### **Respiratory protection**

None required.

## **SECTION 9: Physical and chemical properties**

### **9.1. Information on basic physical and chemical properties**

|  |   |
|--|---|
| Physical state                         | Liquid.   |
| Specific Physical Form:                | Aerosol   |
| Colour                                 | Colourless  |
| Odor                                   | Slight Ether  |
| Odour threshold                        | <i>No data available.</i>   |
| Melting point/freezing point           | <i>Not applicable.</i>  |
| Boiling point/boiling range            | 61 °C   |
| Flammability (solid, gas)              | Not applicable.   |
| Flammable Limits(LEL)                  | <i>No data available.</i>   |
| Flammable Limits(UEL)                  | <i>No data available.</i>   |
| Flash point                            | No flash point  |
| Autoignition temperature               | 405 °C [ <i>Details:</i> per ASTM E659-84 method]   |
| Decomposition temperature              | <i>No data available.</i>   |
| pH                                     | <i>substance/mixture is non-soluble (in water)</i>  |
| Kinematic Viscosity                    | 0.395 mm <sup>2</sup> /sec  |
| Water solubility                       | < 12 ppm  |
| Solubility- non-water                  | <i>No data available.</i>   |
| Partition coefficient: n-octanol/water | <i>No data available.</i>   |
| Vapour pressure                        | 26,664.4 Pa [ <i>@ 25 °C</i> ] [ <i>Details:</i> Internal Pressure for Aerosol Can is approximately 75 psig <i>@25C</i> ] |
| Density                                | 1.52 g/ml   |
| Relative density                       | 1.52 [ <i>@ 20 °C</i> ] [ <i>Ref Std:</i> WATER=1]  |
| Relative Vapour Density                | 8.6 [ <i>Ref Std:</i> AIR=1]  |

### **9.2. Other information**

#### **9.2.2 Other safety characteristics**

|                               |                               |
|-------------------------------|-------------------------------|
| EU Volatile Organic Compounds | <i>No data available.</i>     |
| Evaporation rate              | 49 [ <i>Ref Std:</i> BUOAC=1] |
| Molecular weight              | <i>No data available.</i>     |
| Percent volatile              | 100 %                         |

## **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**

None known.

**10.5 Incompatible materials**

Strong bases.

**10.6 Hazardous decomposition products****Substance****Condition**

Hydrogen Fluoride

At elevated temperatures. - extreme condition of heat

Perfluoroisobutylene (PFIB).

At elevated temperatures. - extreme condition of heat

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.

**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**

No known health effects.

**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  |
|--|-----------|---------|--|
| Overall product                                      | Ingestion |         | No data available; calculated ATE >5,000 mg/kg |
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2- | Dermal    |         | LD50 estimated to be > 5,000 mg/kg             |

|   |                             |     |                    |
|---|-----------------------------|-----|--------------------|
| (trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane   |                             |     |                    |
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | Inhalation-Vapour (4 hours) | Rat | LC50 > 1,000 mg/l  |
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | Ingestion                   | Rat | LD50 > 5,000 mg/kg |
| Carbon dioxide.   | Inhalation-Gas (4 hours)    | Rat | LC50 > 53,000 ppm  |

ATE = acute toxicity estimate

### Skin Corrosion/Irritation

| Name  | Species | Value                     |
|---|---------|---------------------------|
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | Rabbit  | No significant irritation |

### Serious Eye Damage/Irritation

| Name  | Species | Value                     |
|---|---------|---------------------------|
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | Rabbit  | No significant irritation |

### Skin Sensitisation

| Name  | Species    | Value          |
|---|------------|----------------|
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | Guinea pig | 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         |
|---|----------|---------------|
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | In Vitro | Not mutagenic |
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | In vivo  | 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 |
|---|------------|--|---------|----------------|-------------------|
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | Inhalation | Not classified for female reproduction | Rat     | NOAEL 129 mg/l | 1 generation      |
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | Inhalation | Not classified for male reproduction   | Rat     | NOAEL 129 mg/l | 1 generation      |
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | Inhalation | Not classified for development         | Rat     | NOAEL 307 mg/l | during gestation  |

|                 |            |                                      |       |                      |               |
|-----------------|------------|--------------------------------------|-------|----------------------|---------------|
| methoxybutane   |            |                                      |       |                      |               |
| Carbon dioxide. | Inhalation | Not classified for male reproduction | Mouse | LOAEL<br>350,000 ppm | not available |
| Carbon dioxide. | Inhalation | Not classified for development       | Rat   | LOAEL<br>60,000 ppm  | 24 hours      |

### Target Organ(s)

#### Specific Target Organ Toxicity - single exposure

| Name  | Route      | Target Organ(s)       | Value          | Species | Test result    | Exposure Duration |
|---|------------|-----------------------|----------------|---------|----------------|-------------------|
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | Inhalation | nervous system        | Not classified | Dog     | LOAEL 913 mg/l | 10 minutes        |
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | Inhalation | cardiac sensitisation | Not classified | Dog     | NOAEL 913 mg/l | 10 minutes        |

#### Specific Target Organ Toxicity - repeated exposure

| Name  | Route      | Target Organ(s)  | Value          | Species | Test result           | Exposure Duration |
|---|------------|--|----------------|---------|-----------------------|-------------------|
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | Inhalation | liver  | Not classified | Rat     | NOAEL 155 mg/l        | 13 weeks          |
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | Inhalation | bone, teeth, nails, and/or hair  | Not classified | Rat     | NOAEL 129 mg/l        | 11 weeks          |
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | Inhalation | heart   skin   endocrine system   gastrointestinal tract   hematopoietic system   immune system   muscles   nervous system   eyes   kidney and/or bladder   respiratory system | Not classified | Rat     | NOAEL 155 mg/l        | 13 weeks          |
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | Ingestion  | endocrine system   liver   heart   hematopoietic system   immune system   nervous system   eyes   kidney and/or bladder   respiratory system                                   | Not classified | Rat     | NOAEL 1,000 mg/kg/day | 28 days           |
| Carbon dioxide.   | Inhalation | heart   bone, teeth, nails, and/or hair   liver   nervous system   kidney and/or bladder   | Not classified | Rat     | LOAEL 60,000 ppm      | 166 days          |



respiratory system

**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**

No product test data available.

| Material  | CAS #     | Organism       | Type                 | Exposure | Test endpoint                  | Test result |
|---|-----------|----------------|----------------------|----------|--------------------------------|-------------|
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | 422-270-2 | Green algae    | Analogous Compound   | 72 hours | No tox obs at lmt of water sol | >100 mg/l   |
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | 422-270-2 | Water flea     | Analogous Compound   | 48 hours | No tox obs at lmt of water sol | >100 mg/l   |
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | 422-270-2 | Fathead minnow | Endpoint not reached | 96 hours | LC50                           | >100 mg/l   |
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | 422-270-2 | Fathead minnow | Endpoint not reached | 96 hours | No tox obs at lmt of water sol | >100 mg/l   |
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | 422-270-2 | Green algae    | Experimental         | 72 hours | EC50                           | >100 mg/l   |

|   |           |                 |                    |          |                                |            |
|---|-----------|-----------------|--------------------|----------|--------------------------------|------------|
| (trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane   |           |                 |                    |          |                                |            |
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | 422-270-2 | Water flea      | Experimental       | 48 hours | EC50                           | >100 mg/l  |
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | 422-270-2 | Green algae     | Analogous Compound | 72 hours | No tox obs at lmt of water sol | >100 mg/l  |
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | 422-270-2 | Green algae     | Experimental       | 72 hours | NOEC                           | 100 mg/l   |
| Carbon dioxide.   | 124-38-9  | Fish            | Experimental       | 96 hours | LC50                           | 112.2 mg/l |
| Carbon dioxide.   | 124-38-9  | Atlantic Salmon | Experimental       | 43 days  | NOEC                           | 26 mg/l    |

## 12.2. Persistence and degradability

| Material  | CAS Nbr   | Test type                         | Duration | Study Type                    | Test result       | Protocol                       |
|---|-----------|-----------------------------------|----------|-------------------------------|-------------------|--------------------------------|
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | 422-270-2 | Experimental Biodegradation       | 28 days  | BOD                           | 22 %BOD/ThOD      | OECD 301D - Closed bottle test |
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | 422-270-2 | Analogous Compound Biodegradation | 28 days  | BOD                           | 22 %BOD/ThOD      | OECD 301D - Closed bottle test |
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | 422-270-2 | Experimental Photolysis           |          | Photolytic half-life (in air) | 2.9 years (t 1/2) |                                |
| Carbon dioxide.   | 124-38-9  | Data not availbl-                 | N/A      | N/A                           | N/A               | N/A                            |

|  |  |              |  |  |  |  |
|--|--|--------------|--|--|--|--|
|  |  | insufficient |  |  |  |  |
|--|--|--------------|--|--|--|--|

### 12.3 : Bioaccumulative potential

| Material  | Cas No.   | Test type                           | Duration | Study Type | Test result | Protocol |
|---|-----------|-------------------------------------|----------|------------|-------------|----------|
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | 422-270-2 | Experimental Bioconcentration       |          | Log Kow    | 4.0         |          |
| Reaction Mass of 1,1,2,3,3,3-hexafluoro-1-methoxy-2-(trifluoromethyl)propane and 1,1,2,2,3,3,4,4,4-nonafluoro-1-methoxybutane | 422-270-2 | Analogous Compound Bioconcentration |          | Log Kow    | 4.0         |          |
| Carbon dioxide.   | 124-38-9  | Experimental Bioconcentration       |          | Log Kow    | 0.83        |          |

### 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. 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.

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in a permitted industrial waste facility. Facility must be capable of handling aerosol cans. 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)

070603\* Organic halogenated solvents, washing liquids and mother liquors

## SECTION 14: Transportation information

|  | <b>Ground Transport (ADR)</b>  | <b>Air Transport (IATA)</b>  | <b>Marine Transport (IMDG)</b>   |
|--|--|--|--|
| <b>14.1 UN number</b>  | UN1950   | UN1950   | UN1950   |
| <b>14.2 UN proper shipping name</b>  | AEROSOLS   | AEROSOLS, NON-FLAMMABLE  | AEROSOLS   |
| <b>14.3 Transport hazard class(es)</b>   | 2.2  | 2.2  | 2.2  |
| <b>14.4 Packing group</b>  | Not applicable.  | Not applicable.  | Not applicable.  |
| <b>14.5 Environmental hazards</b>  | Not Environmentally Hazardous  | Not applicable   | Not a Marine Pollutant   |
| <b>14.6 Special precautions for user</b>   | 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. |
| <b>14.7 Transport in bulk according to Annex II of Marpol 73/78 and IBC Code</b> | No data available.   | No data available.   | No data available.   |
| <b>Control Temperature</b>   | No data available.   | No data available.   | No data available.   |
| <b>Emergency Temperature</b>   | No data available.   | No data available.   | No data available.   |
| <b>ADR Classification Code</b>   | 5A   | Not applicable.  | Not applicable.  |
| <b>IMDG Segregation Code</b>   | Not applicable.  | Not applicable.  | NONE   |

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

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### Global inventory status

Contact 3M for more information. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. 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  
None

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 not 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

|      |   |
|------|---|
| H229 | Pressurised container: may burst if heated.         |
| H280 | Contains gas under pressure; may explode if heated. |

### Revision information:

GB Section 02: CLP Ingredient table information was added.

GB Section 02: CLP Remark(phrase) information was added.

GB Section 02: Other hazards phrase information was added.

GB Section 04: Information on toxicological effects information was added.

GB Section 12: Classification Warning information was added.

GB Section 15: Chemical Safety Assessment information was added.

GBSDS Section 14 Transport in bulk - Main Heading information was added.

GBSDS Section 14 UN Number information was added.

CLP Remark(phrase) information was deleted.

Section 2: Other hazards phrase information was deleted.

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

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

Section 04: Information on toxicological effects information was deleted.

Section 11: Classification disclaimer information was deleted.

Section 11: GB Classification disclaimer information was added.

Section 11: GB No endocrine disruptor information available warning information was added.

Section 11: No endocrine disruptor information available warning information was deleted.

Section 12: 12.6. Endocrine Disrupting Properties information was deleted.

Section 12: 12.6. Other adverse effects information was added.

Section 12: 12.7. Other adverse effects information was deleted.

Section 12: Classification Warning information was deleted.

Prints No Data if Adverse effects information is not present information was deleted.

Section 12: No endocrine disruptor information available warning information was added.

Section 12: No endocrine disruptor information available warning information was deleted.

Section 14 Marine transport in bulk according to IMO instruments – Main Heading information was deleted.

Section 14 UN Number information was deleted.

Section 15: Chemical Safety Assessment information was deleted.

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

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

Section 16: Web address information was added.

Section 16: Web address information was deleted.

**DISCLAIMER:** The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications. 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 SDSs for Great Britain are available at [www.3M.com/uk](http://www.3M.com/uk)**

For Northern Ireland documents, please contact your 3M representative to obtain a copy.