



## Safety Data Sheet

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<b>Revision date:</b>	03/02/2022	<b>Supersedes date:</b>	24/03/2020
<b>Transportation version number:</b>	5.01 (24/03/2020)		

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

### IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

3M™ Aerospace Sealant AC-251 Black B-2

#### Product Identification Numbers

70-0052-0957-5      70-0052-4364-0

7010372247      7100169376

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

##### Identified uses

Sealant.

#### 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](http://www.3M.com/uk)

#### 1.4. Emergency telephone number

+44 (0)1344 858 000

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet for each of these components is included. Please do not separate the component Safety Data Sheets from this cover page. The document numbers of the MSDSs for components of this product are:

30-3448-5, 30-3193-7

### TRANSPORTATION INFORMATION

70-0052-0957-5

70-0052-4364-0

**ADR/RID:** UN3082, NOT RESTRICTED AS PER SPECIAL PROVISION 375, ENVIRONMENTALLY HAZARDOUS SUBSTANCE EXEMPTION, (FERBAM), (TERPHENYL), III, --.

**IMDG-CODE:** UN3082, NOT RESTRICTED AS PER IMDG CODE 2.10.2.7, MARINE POLLUTANT EXCEPTION, (FERBAM), (TERPHENYL), III, IMDG-Code segregation code: NONE, EMS: --.

**ICAO/IATA:** UN3082, NOT RESTRICTED AS PER SPECIAL PROVISION A197, ENVIRONMENTALLY HAZARDOUS SUBSTANCE EXCEPTION, (FERBAM), (TERPHENYL), III.

Refer to section 14 of the kit components for transport information.

## KIT LABEL

### 2.1. Classification of the substance or mixture

#### CLP REGULATION (EC) No 1272/2008

##### CLASSIFICATION:

Acute Toxicity, Category 4 - Acute Tox. 4; H302

Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315

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

Reproductive Toxicity, Category 1A - Repr. 1A; H360D

Specific Target Organ Toxicity-Repeated Exposure, Category 2 - STOT RE 2; H373

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

Hazardous to the Aquatic Environment (Chronic), Category 1 - Aquatic Chronic 1; H410

For full text of H phrases, see Section 16.

### 2.2. Label elements

#### CLP REGULATION (EC) No 1272/2008

##### SIGNAL WORD

DANGER.

##### Symbols

GHS07 (Exclamation mark) | GHS08 (Health Hazard) | GHS09 (Environment) |

##### Pictograms



Contains:

manganese dioxide; Quartz; lead powder; [particle diameter < 1 mm]

##### HAZARD STATEMENTS:

H302

Harmful if swallowed.

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H360D

May damage the unborn child.

H373

May cause damage to organs through prolonged or repeated exposure:  
nervous system |

respiratory system |

H410 Very toxic to aquatic life with long lasting effects.

**PRECAUTIONARY STATEMENTS**

**Prevention:**

P201 Obtain special instructions before use.  
P260A Do not breathe vapours.  
P273 Avoid release to the environment.  
P280K Wear protective gloves and respiratory protection.

**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.  
P308 + P313 IF exposed or concerned: Get medical advice/attention.

**For containers not exceeding 125 ml the following Hazard and Precautionary statements may be used:**

**<=125 ml Hazard statements**

H360D May damage the unborn child.

**<=125 ml Precautionary statements**

**Prevention:**

P201 Obtain special instructions before use.  
P280K Wear protective gloves and respiratory protection.

**Response:**

P308 + P313 IF exposed or concerned: Get medical advice/attention.

**SUPPLEMENTAL INFORMATION:**

**Supplemental Precautionary Statements:**

Restricted to professional users.

Refer to Safety Data Sheet for component % unknown values ([www.3M.com/msds](http://www.3M.com/msds)).

**Revision information:**

Kit Information: CLP Target Organ Hazard Statement information was modified.  
Label: CLP Ingredients - kit components information was modified.  
Section 2: <125ml Precautionary - Prevention information was modified.  
Label: CLP Classification information was modified.  
Label: CLP Precautionary - Disposal information was deleted.  
Label: CLP Precautionary - Prevention information was modified.  
Label: CLP Supplemental Precautionary Statements information was deleted.  
Section 02: SDS Elements: CLP Supplemental Precautionary Statements information was added.



## Safety Data Sheet

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<b>Document group:</b>	30-3193-7	<b>Version number:</b>	8.01
<b>Revision date:</b>	17/08/2023	<b>Supersedes date:</b>	26/04/2023

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 Aerospace Sealant AC-251 Black B-2 Catalyst

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

##### Identified uses

Hardener

#### 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:

Acute Toxicity, Category 4 - Acute Tox. 4; H302  
Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315  
Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319  
Reproductive Toxicity, Category 1A - Repr. 1A; H360D  
Specific Target Organ Toxicity-Repeated Exposure, Category 2 - STOT RE 2; H373  
Hazardous to the Aquatic Environment (Acute), Category 1 - Aquatic Acute 1; H400

Hazardous to the Aquatic Environment (Chronic), Category 1 - Aquatic Chronic 1; H410

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**

DANGER.

**Symbols**

GHS07 (Exclamation mark) |GHS08 (Health Hazard) |GHS09 (Environment) |

**Pictograms**



Ingredient	CAS Nbr	EC No.	% by Wt
lead powder; [particle diameter < 1 mm]	7439-92-1	231-100-4	<= 0.06

**HAZARD STATEMENTS:**

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H360D	May damage the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure: nervous system   respiratory system.
H410	Very toxic to aquatic life with long lasting effects.

**PRECAUTIONARY STATEMENTS**

**Prevention:**

P201	Obtain special instructions before use.
P260A	Do not breathe vapours.
P273	Avoid release to the environment.
P280K	Wear protective gloves and respiratory protection.

**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.
P308 + P313	IF exposed or concerned: Get medical advice/attention.

**For containers not exceeding 125 ml the following Hazard and Precautionary statements may be used:**

**<=125 ml Hazard statements**

H360D	May damage the unborn child.
-------	------------------------------

**<=125 ml Precautionary statements**

**Prevention:**

P201 Obtain special instructions before use.  
 P280K Wear protective gloves and respiratory protection.

**Response:**  
 P308 + P313 IF exposed or concerned: Get medical advice/attention.

**SUPPLEMENTAL INFORMATION:**

**Supplemental Precautionary Statements:**  
 Restricted to professional users.

8% of the mixture consists of components of unknown acute oral toxicity.

Contains 51% of components with unknown hazards to the aquatic environment.

**2.3. Other hazards**

Contains a substance that meets the criteria for vPvB according to Regulation (EC) No 1907/2006, Annex XIII, as amended by UK REACH Regulations SI 2019/758

**SECTION 3: Composition/information on ingredients**

**3.1. Substances**

Not applicable

**3.2. Mixtures**

<b>Ingredient</b>	<b>Identifier(s)</b>	<b>%</b>	<b>Classification according to Regulation (EC) No. 1272/2008 [CLP], as amended for GB</b>
manganese dioxide	(CAS-No.) 1313-13-9 (EC-No.) 215-202-6	30 - 50	Acute Tox. 4, H332 Acute Tox. 4, H302 EUH031 STOT RE 2, H373
Hydrogenated terphenyl	(CAS-No.) 61788-32-7 (EC-No.) 262-967-7	30 - 45	Aquatic Chronic 2, H411
Polyphenyls, quater- and higher, partially hydrogenated	(CAS-No.) 68956-74-1 (EC-No.) 273-316-1	<= 10	Substance not classified as hazardous
Terphenyl	(CAS-No.) 26140-60-3 (EC-No.) 247-477-3	1 - 5	Aquatic Acute 1, H400,M=10 Aquatic Chronic 1, H410,M=10
Aluminium oxide	(CAS-No.) 1344-28-1 (EC-No.) 215-691-6	<= 5	Substance with a national occupational exposure limit
Water	(CAS-No.) 7732-18-5 (EC-No.) 231-791-2	0.1 - 3	Substance not classified as hazardous
Carbon black	(CAS-No.) 1333-86-4 (EC-No.) 215-609-9	0.1 - 3	Substance with a national occupational exposure limit
Iron(III) oxide	(CAS-No.) 1309-37-1	<= 3	Substance with a national occupational

	(EC-No.) 215-168-2		exposure limit
Quartz	(CAS-No.) 14808-60-7 (EC-No.) 238-878-4	0.1 - 3	STOT RE 1, H372
ferbam (ISO)	(CAS-No.) 14484-64-1 (EC-No.) 238-484-2	0.1 - 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400,M=10 Aquatic Chronic 1, H410,M=100 Acute Tox. 2, H330
sodium hydroxide	(CAS-No.) 1310-73-2 (EC-No.) 215-185-5	<= 1	Skin Corr. 1A, H314 Eye Dam. 1, H318 Met. Corr. 1, H290
POLY(OXY-1,2-ETHANEDIYL), .ALPHA.-(NONYLPHENYL)-.OMEGA.-HYDROXY-, BRANCHED, PHOSPHATES	(CAS-No.) 68412-53-3	0.1 - 0.3	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412
lead powder; [particle diameter < 1 mm]	(CAS-No.) 7439-92-1 (EC-No.) 231-100-4	<= 0.06	Repr. 1A, H360FD Lact., H362 STOT SE 2, H371 STOT RE 2, H373 Aquatic Acute 1, H400,M=1 Aquatic Chronic 1, H410,M=10

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
lead powder; [particle diameter < 1 mm]	(CAS-No.) 7439-92-1 (EC-No.) 231-100-4	(C >= 0.03%) Repr. 1A, H360D
sodium hydroxide	(CAS-No.) 1310-73-2 (EC-No.) 215-185-5	(C >= 5%) Skin Corr. 1A, H314 (2% =< C < 5%) Skin Corr. 1B, H314 (0.5% =< C < 2%) Skin Irrit. 2, H315 (C >= 2%) Eye Dam. 1, H318 (0.5% =< C < 2%) 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

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

**Eye contact**

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. 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**

The most important symptoms and effects based on the GB CLP classification include: Irritation to the skin (localized redness, swelling, itching, and dryness). Serious irritation to the eyes (significant redness, swelling, pain, tearing, and impaired vision). Harmful if swallowed. Target organ effects. See Section 11 for additional details.

**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**

Hydrocarbons.  
Carbon monoxide  
Carbon dioxide.  
Oxides of nitrogen.  
Oxides of Lead  
Oxides of sulphur.

**Condition**

During combustion.  
During combustion.  
During combustion.  
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**

Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Avoid contact during pregnancy/while nursing. 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 acids.

**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>
Iron(III) oxide	1309-37-1	UK HSC	TWA(respirable):4 mg/m <sup>3</sup> ;TWA(Inhalable):10 mg/m <sup>3</sup> ;TWA(as Fe, fume):5 mg/m <sup>3</sup> ;STEL(as Fe, fume):10 mg/m <sup>3</sup>	
sodium hydroxide	1310-73-2	UK HSC	STEL:2 mg/m <sup>3</sup>	
Manganese, inorganic compounds	1313-13-9	UK HSC	TWA(as Mn, respirable fraction):0.05 mg/m <sup>3</sup> ;TWA(as Mn):0.5 mg/m <sup>3</sup>	
Carbon black	1333-86-4	UK HSC	TWA: 3.5 mg/m <sup>3</sup> ; STEL: 7 mg/m <sup>3</sup>	
Aluminium oxide	1344-28-1	UK HSC	TWA(as respirable dust):4 mg/m <sup>3</sup> ;TWA(as inhalable dust):10 mg/m <sup>3</sup>	
Quartz	14808-60-7	UK HSC	TWA(respirable):0.1 mg/m <sup>3</sup>	
Terphenyl	26140-60-3	UK HSC	STEL:4.8 mg/m <sup>3</sup> (0.5 ppm)	
Hydrogenated terphenyl	61788-32-7	UK HSC	TWA:19 mg/m <sup>3</sup> (2 ppm);STEL:48 mg/m <sup>3</sup> (5 ppm)	
lead powder; [particle diameter < 1 mm]	7439-92-1	UK HSC	TWA(as Pb):0.15 mg/m <sup>3</sup>	

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

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

### 8.2.2. Personal protective equipment (PPE)

#### Eye/face protection

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

Indirect vented goggles.

#### *Applicable Norms/Standards*

Use eye protection conforming to EN 166

#### Skin/hand protection

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

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

Material	Thickness (mm)	Breakthrough Time
Polymer laminate	No data available	No data available

#### *Applicable Norms/Standards*

Use gloves tested to EN 374

#### Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

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

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

<b>Physical state</b>	Liquid.
<b>Colour</b>	Black
<b>Odor</b>	Slight Odor
<b>Odour threshold</b>	No data available.
<b>Melting point/freezing point</b>	Not applicable.
<b>Boiling point/boiling range</b>	No data available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Flammable Limits(LEL)</b>	No data available.
<b>Flammable Limits(UEL)</b>	No data available.

Flash point	$\geq 93.3$ °C [Test Method: Closed Cup]
Autoignition temperature	No data available.
Decomposition temperature	No data available.
pH	substance/mixture is non-soluble (in water)
Kinematic Viscosity	No data available.
Water solubility	Slight (less than 10%)
Solubility- non-water	No data available.
Partition coefficient: n-octanol/water	No data available.
Vapour pressure	No data available.
Density	1.59 g/ml
Relative density	1.59 [Ref Std: WATER=1]
Relative Vapour Density	$\geq 1$ [Ref Std: AIR=1]

## 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

Heat.

### 10.5 Incompatible materials

Reducing agents.  
Strong acids.

### 10.6 Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

The information below may not agree with the 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**

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

**Skin contact**

May be harmful in contact with skin. Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, dryness, cracking, blistering, and pain.

**Eye contact**

Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

**Ingestion**

May be harmful if swallowed.

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

**Additional Health Effects:**

**Prolonged or repeated exposure may cause target organ effects:**

Neurological effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and changes in blood pressure and heart rate. Respiratory effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and respiratory failure.

**Reproductive/Developmental Toxicity:**

Contains a chemical or chemicals which may interfere with lactation or be harmful to breastfed children.

**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 >2,000 - =5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >2,000 - =5,000 mg/kg
manganese dioxide	Dermal	Rat	LD50 2,000 mg/kg
manganese dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 1.5 mg/l
manganese dioxide	Ingestion	Rat	LD50 > 2,197 mg/kg
Hydrogenated terphenyl	Dermal	Rabbit	LD50 > 2,000 mg/kg
Hydrogenated terphenyl	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 4.7 mg/l
Hydrogenated terphenyl	Ingestion	Rat	LD50 > 10,000 mg/kg
Terphenyl	Dermal	Rabbit	LD50 > 5,000 mg/kg
Terphenyl	Inhalation-Dust/Mist (4 hours)	Rat	LD50 > 3.8 mg/l
Terphenyl	Ingestion	Rat	LD50 2,304 mg/kg
Aluminium oxide	Dermal		LD50 estimated to be > 5,000 mg/kg
Aluminium oxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.3 mg/l

**3M Aerospace Sealant AC-251 Black B-2 Catalyst**

Aluminium oxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Quartz	Dermal		LD50 estimated to be > 5,000 mg/kg
Quartz	Ingestion		LD50 estimated to be > 5,000 mg/kg
Iron(III) oxide	Dermal	Not available	LD50 3,100 mg/kg
Iron(III) oxide	Ingestion	Not available	LD50 3,700 mg/kg
Carbon black	Dermal	Rabbit	LD50 > 3,000 mg/kg
Carbon black	Ingestion	Rat	LD50 > 8,000 mg/kg
ferbam (ISO)	Dermal	Rabbit	LD50 > 4,000 mg/kg
ferbam (ISO)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.4 mg/l
ferbam (ISO)	Ingestion	Rat	LD50 1,130 mg/kg
POLY(OXY-1,2-ETHANEDIYL), .ALPHA.-(NONYLPHENYL)-.OMEGA.-HYDROXY-, BRANCHED, PHOSPHATES	Ingestion	Rat	LD50 4,450
lead powder; [particle diameter < 1 mm]	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
manganese dioxide	Rabbit	No significant irritation
Hydrogenated terphenyl	Rabbit	No significant irritation
Terphenyl	Rabbit	No significant irritation
Aluminium oxide	Rabbit	No significant irritation
Iron(III) oxide	Rabbit	No significant irritation
Quartz	Professional judgement	No significant irritation
Carbon black	Rabbit	No significant irritation
sodium hydroxide	Rabbit	Corrosive
ferbam (ISO)	Rabbit	No significant irritation
POLY(OXY-1,2-ETHANEDIYL), .ALPHA.-(NONYLPHENYL)-.OMEGA.-HYDROXY-, BRANCHED, PHOSPHATES	Rabbit	Irritant
lead powder; [particle diameter < 1 mm]	similar compounds	No significant irritation

**Serious Eye Damage/Irritation**

Name	Species	Value
manganese dioxide	Rabbit	Mild irritant
Hydrogenated terphenyl	Rabbit	No significant irritation
Terphenyl	Rabbit	No significant irritation
Aluminium oxide	Rabbit	No significant irritation
Iron(III) oxide	Rabbit	No significant irritation
Carbon black	Rabbit	No significant irritation
sodium hydroxide	Rabbit	Corrosive
ferbam (ISO)	Rabbit	Severe irritant
POLY(OXY-1,2-ETHANEDIYL), .ALPHA.-(NONYLPHENYL)-.OMEGA.-HYDROXY-, BRANCHED, PHOSPHATES	Rabbit	Corrosive
lead powder; [particle diameter < 1 mm]	similar compounds	Mild irritant

**Skin Sensitisation**

Name	Species	Value
manganese dioxide	Mouse	Not classified

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Hydrogenated terphenyl	Human	Not classified
Iron(III) oxide	Human	Not classified
sodium hydroxide	Human	Not classified
ferbam (ISO)	Guinea pig	Not classified
POLY(OXY-1,2-ETHANEDIYL), .ALPHA.-(NONYLPHENYL)-.OMEGA.-HYDROXY-, BRANCHED, PHOSPHATES	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
manganese dioxide	In Vitro	Some positive data exist, but the data are not sufficient for classification
manganese dioxide	In vivo	Some positive data exist, but the data are not sufficient for classification
Hydrogenated terphenyl	In Vitro	Not mutagenic
Hydrogenated terphenyl	In vivo	Not mutagenic
Terphenyl	In Vitro	Not mutagenic
Terphenyl	In vivo	Not mutagenic
Aluminium oxide	In Vitro	Not mutagenic
Iron(III) oxide	In Vitro	Not mutagenic
Quartz	In Vitro	Some positive data exist, but the data are not sufficient for classification
Quartz	In vivo	Some positive data exist, but the data are not sufficient for classification
Carbon black	In Vitro	Not mutagenic
Carbon black	In vivo	Some positive data exist, but the data are not sufficient for classification
sodium hydroxide	In Vitro	Not mutagenic
POLY(OXY-1,2-ETHANEDIYL), .ALPHA.-(NONYLPHENYL)-.OMEGA.-HYDROXY-, BRANCHED, PHOSPHATES	In Vitro	Not mutagenic
lead powder; [particle diameter < 1 mm]	In vivo	Some positive data exist, but the data are not sufficient for classification

**Carcinogenicity**

Name	Route	Species	Value
Aluminium oxide	Inhalation	Rat	Not carcinogenic
Iron(III) oxide	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification
Quartz	Inhalation	Human and animal	Carcinogenic.
Carbon black	Dermal	Mouse	Not carcinogenic
Carbon black	Ingestion	Mouse	Not carcinogenic
Carbon black	Inhalation	Rat	Carcinogenic.
ferbam (ISO)	Ingestion	Rat	Not carcinogenic
lead powder; [particle diameter < 1 mm]	Not specified.	official classification	Carcinogenic.

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test result	Exposure Duration
manganese dioxide	Inhalation	Not classified for female reproduction	Rat	NOAEL 20 mg/m <sup>3</sup>	2 generation
manganese dioxide	Inhalation	Not classified for male reproduction	Rabbit	LOAEL 250 mg/kg	1 days
manganese dioxide	Ingestion	Not classified for development	Rat	LOAEL 354	prematuring

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				mg/kg/day	into lactation
manganese dioxide	Inhalation	Not classified for development	Rat	LOAEL 61 mg/m <sup>3</sup>	gestation into lactation
Hydrogenated terphenyl	Ingestion	Not classified for female reproduction	Rat	NOAEL 81 mg/kg/day	2 generation
Hydrogenated terphenyl	Ingestion	Not classified for male reproduction	Rat	NOAEL 62 mg/kg/day	2 generation
Hydrogenated terphenyl	Ingestion	Not classified for development	Rat	NOAEL 500 mg/kg/day	during organogenesis
ferbam (ISO)	Ingestion	Not classified for female reproduction	Rat	NOAEL 25 mg/kg/day	3 generation
ferbam (ISO)	Ingestion	Not classified for male reproduction	Rat	NOAEL 25 mg/kg/day	3 generation
ferbam (ISO)	Ingestion	Not classified for development	Rat	NOAEL 11 mg/kg/day	during organogenesis
lead powder; [particle diameter < 1 mm]	Not specified.	Toxic to female reproduction	Human	LOAEL 10 ug/dl blood	
lead powder; [particle diameter < 1 mm]	Not specified.	Toxic to male reproduction	Human	LOAEL 37 ug/dl blood	
lead powder; [particle diameter < 1 mm]	Not specified.	Toxic to development	Human	NOAEL Not available	

**Lactation**

Name	Route	Species	Value
ferbam (ISO)	Ingestion	Rat	Causes effects on or via lactation

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

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
sodium hydroxide	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL Not available	
lead powder; [particle diameter < 1 mm]	Ingestion	nervous system	May cause damage to organs	Human	LOAEL 90 ug/dl blood	poisoning and/or abuse
lead powder; [particle diameter < 1 mm]	Ingestion	heart	Not classified	Human	NOAEL Not available	poisoning and/or abuse

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
manganese dioxide	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Monkey	LOAEL 1.1 mg/m <sup>3</sup>	10 months
manganese dioxide	Inhalation	nervous system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Hydrogenated terphenyl	Dermal	skin	Not classified	Rabbit	NOAEL 500 mg/kg/day	3 weeks
Hydrogenated terphenyl	Dermal	hematopoietic system	Not classified	Rabbit	NOAEL 2,000 mg/kg/day	3 weeks
Hydrogenated terphenyl	Inhalation	liver   hematopoietic system   eyes	Not classified	Rat	NOAEL 0.5 mg/l	13 weeks
Hydrogenated terphenyl	Ingestion	hematopoietic system   kidney and/or bladder   liver   eyes   respiratory system	Not classified	Rat	NOAEL 120 mg/kg/day	14 weeks
Aluminium oxide	Inhalation	pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Aluminium oxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
Iron(III) oxide	Inhalation	pulmonary fibrosis   pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure

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Quartz	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Carbon black	Inhalation	pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure
lead powder; [particle diameter < 1 mm]	Inhalation	kidney and/or bladder	May cause damage to organs though prolonged or repeated exposure	Human	LOAEL 60 ug/dl blood	occupational exposure
lead powder; [particle diameter < 1 mm]	Inhalation	hematopoietic system	May cause damage to organs though prolonged or repeated exposure	Human	LOAEL 50 ug/dl blood	occupational exposure
lead powder; [particle diameter < 1 mm]	Inhalation	nervous system	May cause damage to organs though prolonged or repeated exposure	Human	LOAEL 40 ug/dl blood	occupational exposure
lead powder; [particle diameter < 1 mm]	Inhalation	gastrointestinal tract	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
lead powder; [particle diameter < 1 mm]	Inhalation	heart   endocrine system   immune system   vascular system	Not classified	Human	NOAEL Not available	occupational exposure
lead powder; [particle diameter < 1 mm]	Ingestion	bone, teeth, nails, and/or hair	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 20 ug/dl blood	3 months
lead powder; [particle diameter < 1 mm]	Ingestion	eyes	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 0.5 mg/kg/day	20 days
lead powder; [particle diameter < 1 mm]	Ingestion	hematopoietic system   kidney and/or bladder	May cause damage to organs though prolonged or repeated exposure	Human	LOAEL 40 ug/dl blood	environmental exposure
lead powder; [particle diameter < 1 mm]	Ingestion	nervous system	May cause damage to organs though prolonged or repeated exposure	Human	LOAEL 11 ug/dl blood	environmental exposure
lead powder; [particle diameter < 1 mm]	Ingestion	auditory system   heart   endocrine system   vascular system	Not classified	Human	NOAEL Not available	environmental exposure

**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
manganese dioxide	1313-13-9	Rainbow trout	Endpoint not reached	96 hours	LC50	>100 mg/l
manganese dioxide	1313-13-9	Green algae	Experimental	72 hours	EC50	>100 mg/l



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manganese dioxide	1313-13-9	Water flea	Experimental	48 hours	EC50	>100 mg/l
manganese dioxide	1313-13-9	Green algae	Experimental	72 hours	EC10	100 mg/l
manganese dioxide	1313-13-9	Water flea	Experimental	8 days	NOEC	100 mg/l
Hydrogenated terphenyl	61788-32-7	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Hydrogenated terphenyl	61788-32-7	Activated sludge	Experimental	3 hours	NOEC	103 mg/l
Polyphenyls, quater- and higher, partially hydrogenated	68956-74-1	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Aluminium oxide	1344-28-1	Fish	Experimental	96 hours	LC50	>100 mg/l
Aluminium oxide	1344-28-1	Green algae	Experimental	72 hours	EC50	>100 mg/l
Aluminium oxide	1344-28-1	Water flea	Experimental	48 hours	LC50	>100 mg/l
Aluminium oxide	1344-28-1	Green algae	Experimental	72 hours	NOEC	>100 mg/l
Terphenyl	26140-60-3	Water flea	Estimated	48 hours	EC50	0.022 mg/l
Terphenyl	26140-60-3	Green algae	Experimental	72 hours	EC50	0.102 mg/l
Terphenyl	26140-60-3	Rainbow trout	Experimental	96 hours	LC50	27 mg/l
Terphenyl	26140-60-3	Fathead minnow	Experimental	34 days	NOEC	0.064 mg/l
Terphenyl	26140-60-3	Green algae	Experimental	72 hours	NOEC	0.003 mg/l
Terphenyl	26140-60-3	Water flea	Experimental	21 days	NOEC	0.005 mg/l
Carbon black	1333-86-4	Activated sludge	Experimental	3 hours	EC50	>=100 mg/l
Carbon black	1333-86-4	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Iron(III) oxide	1309-37-1	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Iron(III) oxide	1309-37-1	Water flea	Experimental	48 hours	No tox obs at lmt of water sol	>100 mg/l
Iron(III) oxide	1309-37-1	Zebra Fish	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Iron(III) oxide	1309-37-1	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Iron(III) oxide	1309-37-1	Water flea	Experimental	21 days	No tox obs at lmt of water sol	>100 mg/l
Iron(III) oxide	1309-37-1	Activated sludge	Experimental	3 hours	EC50	>10,000 mg/l
Quartz	14808-60-7	Green algae	Estimated	72 hours	EC50	440 mg/l
Quartz	14808-60-7	Water flea	Estimated	48 hours	EC50	7,600 mg/l
Quartz	14808-60-7	Zebra Fish	Estimated	96 hours	LC50	5,000 mg/l
Quartz	14808-60-7	Green algae	Estimated	72 hours	NOEC	60 mg/l
ferbam (ISO)	14484-64-1	Green algae	Experimental	96 hours	ErC50	2.4 mg/l
ferbam (ISO)	14484-64-1	Guppy	Experimental	96 hours	LC50	0.09 mg/l
ferbam (ISO)	14484-64-1	Water flea	Experimental	48 hours	LC50	0.09 mg/l

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ferbam (ISO)	14484-64-1	Rainbow trout	Experimental	60 days	NOEC	0.00056 mg/l
sodium hydroxide	1310-73-2	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
POLY(OXY-1,2-ETHANEDIYL), . ALPHA.- (NONYLPHENYL).-OMEGA.-HYDROXY-, BRANCHED, PHOSPHATES	68412-53-3	Zebra Fish	Experimental	96 hours	LC50	81 mg/l
lead powder; [particle diameter < 1 mm]	7439-92-1	Fathead minnow	Analogous Compound	96 hours	LC50	0.0408 mg/l
lead powder; [particle diameter < 1 mm]	7439-92-1	Green algae	Analogous Compound	72 hours	ErC50	0.0205 mg/l
lead powder; [particle diameter < 1 mm]	7439-92-1	Water flea	Analogous Compound	48 hours	EC50	0.026 mg/l
lead powder; [particle diameter < 1 mm]	7439-92-1	N/A	Analogous Compound	30 days	EC10	0.0017 mg/l
lead powder; [particle diameter < 1 mm]	7439-92-1	Green algae	Analogous Compound	72 hours	ErC10	0.0061 mg/l
lead powder; [particle diameter < 1 mm]	7439-92-1	Rainbow trout	Analogous Compound	578 days	NOEC	0.003 mg/l
lead powder; [particle diameter < 1 mm]	7439-92-1	Activated sludge	Analogous Compound	24 hours	EC50	9 mg/l

**12.2. Persistence and degradability**

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
manganese dioxide	1313-13-9	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Hydrogenated terphenyl	61788-32-7	Experimental Biodegradation	35 days	CO2 evolution	1 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Hydrogenated terphenyl	61788-32-7	Experimental Photolysis		Photolytic half-life(in water)	86 days (t 1/2)	
Hydrogenated terphenyl	61788-32-7	Experimental Soil Metabolism Aerobic		Half-life (t 1/2)	202 days (t 1/2)	
Polyphenyls, quater- and higher, partially hydrogenated	68956-74-1	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Aluminium oxide	1344-28-1	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Terphenyl	26140-60-3	Experimental Biodegradation	14 days	BOD	0.5 %BOD/ThOD	OECD 301C - MITI test (I)
Carbon black	1333-86-4	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Iron(III) oxide	1309-37-1	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Quartz	14808-60-7	Data not availbl-insufficient	N/A	N/A	N/A	N/A
ferbam (ISO)	14484-64-1	Analogous Compound Biodegradation	14 days	BOD	0 %BOD/ThOD	OECD 301C - MITI test (I)
ferbam (ISO)	14484-64-1	Experimental Hydrolysis		Hydrolytic half-life	≤31 minutes (t 1/2)	

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sodium hydroxide	1310-73-2	Data not available or insufficient	N/A	N/A	N/A	N/A
POLY(OXY-1,2-ETHANEDIYL), . ALPHA.- (NONYLPHENYL)-.OMEGA.-HYDROXY-, BRANCHED, PHOSPHATES	68412-53-3	Experimental Biodegradation	28 days	BOD	21 %BOD/ThOD	
lead powder; [particle diameter < 1 mm]	7439-92-1	Data not available or insufficient	N/A	N/A	N/A	N/A

**12.3 : Bioaccumulative potential**

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
manganese dioxide	1313-13-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydrogenated terphenyl	61788-32-7	Analogous Compound BCF - Fish	42 days	Bioaccumulation factor	5200	similar to OECD 305
Hydrogenated terphenyl	61788-32-7	Experimental Bioconcentration		Log Kow	>5.3	OECD 117 log Kow HPLC method
Polyphenyls, quater- and higher, partially hydrogenated	68956-74-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Aluminium oxide	1344-28-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Terphenyl	26140-60-3	Estimated BCF - Fish	60 days	Bioaccumulation factor	2300	OECD305-Bioconcentration
Carbon black	1333-86-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Iron(III) oxide	1309-37-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Quartz	14808-60-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
ferbam (ISO)	14484-64-1	Experimental Bioconcentration		Log Kow	-1.597	OECD 107 log Kow shke flask mtd
sodium hydroxide	1310-73-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
POLY(OXY-1,2-ETHANEDIYL), . ALPHA.- (NONYLPHENYL)-.OMEGA.-HYDROXY-, BRANCHED, PHOSPHATES	68412-53-3	Estimated BCF - Fish		Bioaccumulation factor	1280	
lead powder; [particle diameter < 1 mm]	7439-92-1	Experimental BCF - Other		Bioaccumulation factor	1322	

**12.4. Mobility in soil**

Material	Cas No.	Test type	Study Type	Test result	Protocol
Hydrogenated terphenyl	61788-32-7	Experimental Mobility in Soil	Koc	≥8400 l/kg	OECD 121 Estim. of Koc by HPLC

## 12.5. Results of the PBT and vPvB assessment

Ingredient	CAS Nbr	PBT/vPvB status
Hydrogenated terphenyl	61788-32-7	Meets UK REACH vPvB criteria

## 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. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

### EU waste code (product as sold)

08 04 09\* Waste adhesives and sealants containing organic solvents or other dangerous substances

## SECTION 14: Transportation information

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
<b>14.1 UN number</b>	UN3082	UN3082	UN3082
<b>14.2 UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(FERBAM; TERPHENYL)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(FERBAM; TERPHENYL)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(FERBAM; TERPHENYL)
<b>14.3 Transport hazard class(es)</b>	9	9	9
<b>14.4 Packing group</b>	III	III	III
<b>14.5 Environmental hazards</b>	Environmentally Hazardous	Not applicable	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</b>	No data available.	No data available.	No data available.

<b>IBC Code</b>			
<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>	M6	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

#### Carcinogenicity

<u>Ingredient</u>	<u>CAS Nbr</u>	<u>Classification</u>	<u>Regulation</u>
ferbam (ISO)	14484-64-1	Gr. 3: Not classifiable	International Agency for Research on Cancer
Iron(III) oxide	1309-37-1	Gr. 3: Not classifiable	International Agency for Research on Cancer
Carbon black	1333-86-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
lead powder; [particle diameter < 1 mm]	7439-92-1	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Quartz	14808-60-7	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer

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

The following substance(s) contained in this product is/are subject to Annex XVII of regulation (EC) 1907/2006, as amended for GB, with regard to restrictions on the manufacture, placing on the market and use when present in certain dangerous conditions. Users of this product are required to comply with the restrictions placed upon it by the aforementioned provision.

<u>Ingredient</u>	<u>CAS Nbr</u>
lead powder; [particle diameter < 1 mm]	7439-92-1

Restriction status: listed in UK REACH Annex XVII

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

<u>Ingredient</u>	<u>CAS Nbr</u>
Hydrogenated terphenyl	61788-32-7

lead powder; [particle diameter < 1 mm] 7439-92-1

Authorisation status: listed in the UK REACH Candidate List of Substances of Very High Concern for Authorisation

**Global inventory status**

Contact 3M for more 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

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
ferbam (ISO)	14484-64-1	100	200
lead powder; [particle diameter < 1 mm]	7439-92-1	100	200

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

Chemical	Identifier(s)	Annex I
ferbam (ISO)	14484-64-1	Part 1 and Part 2
lead powder; [particle diameter < 1 mm]	7439-92-1	Part 1

**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**

EUH031	Contact with acid liberates toxic gas.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360D	May damage the unborn child.
H360FD	May damage fertility. May damage the unborn child.
H362	May cause harm to breast-fed children.
H371	May cause damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure: nervous system   respiratory system.

H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

**Revision information:**

GB Section 02: CLP Ingredient table information was modified.

GB Section 15: Authorisation status under REACH: SVHC Authorisation ingredient information information was added.

GB Section 15: Carcinogenicity information information was modified.

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

Section 12: Component ecotoxicity information information was modified.

Section 12: Persistence and Degradability information information was modified.

Section 12: Biocumulative 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.

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.



## Safety Data Sheet

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<b>Document group:</b>	30-3448-5	<b>Version number:</b>	4.02
<b>Revision date:</b>	23/07/2021	<b>Supersedes date:</b>	13/11/2018

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 Aerospace Sealant AC-251 B-1/2, B-1, and B-2 Black Base

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

##### Identified uses

Sealant.

#### 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

CLP REGULATION (EC) No 1272/2008

##### CLASSIFICATION:

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

#### 2.2. Label elements

CLP REGULATION (EC) No 1272/2008

Not applicable

##### SUPPLEMENTAL INFORMATION:

Supplemental Hazard Statements:



EUH210

Safety data sheet available on request.

**2.3. Other hazards**

None known.

**SECTION 3: Composition/information on ingredients****3.1. Substances**

Not applicable

**3.2. Mixtures**

Ingredient	Identifier(s)	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Propane, 1,2,3-trichloro-, polymer with 1,1'-[methylenebis(oxy)]bis[2-chloroethane] and sodium sulfide (Na <sub>2</sub> (S <sub>x</sub> )), reduced	(CAS-No.) 68611-50-7	55 - 65	Substance not classified as hazardous
Calcium carbonate	(CAS-No.) 471-34-1 (EC-No.) 207-439-9	30 - 40	Substance with a national occupational exposure limit
toluene	(CAS-No.) 108-88-3 (EC-No.) 203-625-9	< 0.99	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 Aquatic Chronic 3, H412
Carbon black	(CAS-No.) 1333-86-4 (EC-No.) 215-609-9 (REACH-No.) 01-2119384822-32	< 0.5	Substance with a national occupational exposure limit
Quartz	(CAS-No.) 14808-60-7 (EC-No.) 238-878-4	< 0.5	STOT RE 1, H372

Please see section 16 for the full text of any H statements referred to in this section

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

**SECTION 4: First aid measures****4.1. Description of first aid measures****Inhalation**

Remove person to fresh air. If you feel unwell, get medical attention.

**Skin contact**

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

**Eye contact**

No need for first aid is anticipated.

**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**

formaldehyde

Carbon monoxide

Carbon dioxide.

Hydrogen Chloride

**Condition**

During combustion.

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**

Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray.

Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Use personal protective equipment (eg. gloves, respirators...) as required.

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

Store away from acids. 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>
toluene	108-88-3	UK HSC	TWA: 191 mg/m <sup>3</sup> (50 ppm); STEL: 384 mg/m <sup>3</sup> (100 ppm)	SKIN
Carbon black	1333-86-4	UK HSC	TWA: 3.5 mg/m <sup>3</sup> ; STEL: 7 mg/m <sup>3</sup>	
Quartz	14808-60-7	UK HSC	TWA(respirable):0.1 mg/m <sup>3</sup>	
DUST, INERT OR NUISANCE	471-34-1	UK HSC	TWA(as respirable dust):4 mg/m <sup>3</sup> ;TWA(as inhalable dust):10 mg/m <sup>3</sup>	
Limestone	471-34-1	UK HSC	TWA(respirable):4 mg/m <sup>3</sup> ;TWA(as respirable dust):4 mg/m <sup>3</sup> ;TWA(Inhalable):10 mg/m <sup>3</sup> ;TWA(as inhalable dust):10 mg/m <sup>3</sup>	

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.

**Recommended monitoring procedures:**Information on recommended monitoring procedures can be obtained from UK HSC

**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**

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:

Safety glasses with side shields.

*Applicable Norms/Standards*

Use eye protection conforming to EN 166

**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**

<b>Physical state</b>	Liquid.
<b>Specific Physical Form:</b>	Paste
<b>Colour</b>	Black
<b>Odor</b>	Sulfuric
<b>Odour threshold</b>	<i>No data available.</i>
<b>Melting point/freezing point</b>	<i>Not applicable.</i>
<b>Boiling point/boiling range</b>	<i>Not applicable.</i>
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Flammable Limits(LEL)</b>	<i>No data available.</i>
<b>Flammable Limits(UEL)</b>	<i>No data available.</i>
<b>Flash point</b>	>=93.3 °C [ <i>Test Method:Closed Cup</i> ]
<b>Autoignition temperature</b>	<i>No data available.</i>
<b>Decomposition temperature</b>	<i>No data available.</i>
<b>pH</b>	<i>substance/mixture is non-soluble (in water)</i>
<b>Kinematic Viscosity</b>	<i>No data available.</i>
<b>Water solubility</b>	Nil
<b>Solubility- non-water</b>	<i>No data available.</i>
<b>Partition coefficient: n-octanol/water</b>	<i>No data available.</i>
<b>Vapour pressure</b>	<i>No data available.</i>
<b>Density</b>	1.61 g/ml
<b>Relative density</b>	1.61 [ <i>Ref Std:WATER=1</i> ]
<b>Relative Vapor Density</b>	<i>No data available.</i>

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

<b>EU Volatile Organic Compounds</b>	<i>No data available.</i>
<b>Evaporation rate</b>	<i>No data available.</i>
<b>Percent volatile</b>	0.1 %

**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

Reducing agents.

Strong acids.

Strong bases.

### 10.6 Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
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None known.	
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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. May cause additional health effects (see below).

#### 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. May cause additional health effects (see below).

#### Additional Health Effects:

#### Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

### 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
Propane, 1,2,3-trichloro-, polymer with 1,1'-[methylenebis(oxy)]bis[2-chloroethane] and sodium sulfide (Na <sub>2</sub> (Sx)), reduced	Dermal	Rat	LD50 > 7,800 mg/kg
Propane, 1,2,3-trichloro-, polymer with 1,1'-[methylenebis(oxy)]bis[2-chloroethane] and sodium sulfide (Na <sub>2</sub> (Sx)), reduced	Ingestion	Rat	LD50 > 5,000 mg/kg
Calcium carbonate	Dermal	Rat	LD50 > 2,000 mg/kg
Calcium carbonate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
Calcium carbonate	Ingestion	Rat	LD50 6,450 mg/kg
Carbon black	Dermal	Rabbit	LD50 > 3,000 mg/kg
Carbon black	Ingestion	Rat	LD50 > 8,000 mg/kg
Quartz	Dermal		LD50 estimated to be > 5,000 mg/kg
Quartz	Ingestion		LD50 estimated to be > 5,000 mg/kg
toluene	Dermal	Rat	LD50 12,000 mg/kg
toluene	Inhalation-Vapour (4 hours)	Rat	LC50 30 mg/l
toluene	Ingestion	Rat	LD50 5,550 mg/kg

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

Name	Species	Value
Propane, 1,2,3-trichloro-, polymer with 1,1'-[methylenebis(oxy)]bis[2-chloroethane] and sodium sulfide (Na <sub>2</sub> (Sx)), reduced	Rabbit	No significant irritation
Calcium carbonate	Rabbit	No significant irritation
Carbon black	Rabbit	No significant irritation
Quartz	Professional judgement	No significant irritation
toluene	Rabbit	Irritant

#### Serious Eye Damage/Irritation

Name	Species	Value
Propane, 1,2,3-trichloro-, polymer with 1,1'-[methylenebis(oxy)]bis[2-chloroethane] and sodium sulfide (Na <sub>2</sub> (Sx)), reduced	Rabbit	No significant irritation
Calcium carbonate	Rabbit	No significant irritation
Carbon black	Rabbit	No significant irritation
toluene	Rabbit	Moderate irritant

#### Skin Sensitisation

Name	Species	Value
Propane, 1,2,3-trichloro-, polymer with 1,1'-[methylenebis(oxy)]bis[2-chloroethane] and sodium sulfide (Na <sub>2</sub> (Sx)), reduced		Not classified
toluene	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
Carbon black	In Vitro	Not mutagenic
Carbon black	In vivo	Some positive data exist, but the data are not sufficient for classification
Quartz	In Vitro	Some positive data exist, but the data are not sufficient for classification
Quartz	In vivo	Some positive data exist, but the data are not sufficient for classification
toluene	In Vitro	Not mutagenic
toluene	In vivo	Not mutagenic

### Carcinogenicity

Name	Route	Species	Value
Carbon black	Dermal	Mouse	Not carcinogenic
Carbon black	Ingestion	Mouse	Not carcinogenic
Carbon black	Inhalation	Rat	Carcinogenic.
Quartz	Inhalation	Human and animal	Carcinogenic.
toluene	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
toluene	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
toluene	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification

### Reproductive Toxicity

#### Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Calcium carbonate	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	premating & during gestation
toluene	Inhalation	Not classified for female reproduction	Human	NOAEL Not available	occupational exposure
toluene	Inhalation	Not classified for male reproduction	Rat	NOAEL 2.3 mg/l	1 generation
toluene	Ingestion	Toxic to development	Rat	LOAEL 520 mg/kg/day	during gestation
toluene	Inhalation	Toxic to development	Human	NOAEL Not available	poisoning and/or abuse

### Target Organ(s)

#### Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Calcium carbonate	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.812 mg/l	90 minutes
toluene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
toluene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
toluene	Inhalation	immune system	Not classified	Mouse	NOAEL 0.004 mg/l	3 hours
toluene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Calcium carbonate	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Carbon black	Inhalation	pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure
Quartz	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
toluene	Inhalation	auditory system   eyes   olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
toluene	Inhalation	nervous system	May cause damage to organs though prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
toluene	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 2.3 mg/l	15 months
toluene	Inhalation	heart   liver   kidney and/or bladder	Not classified	Rat	NOAEL 11.3 mg/l	15 weeks
toluene	Inhalation	endocrine system	Not classified	Rat	NOAEL 1.1 mg/l	4 weeks
toluene	Inhalation	immune system	Not classified	Mouse	NOAEL Not available	20 days
toluene	Inhalation	bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 1.1 mg/l	8 weeks
toluene	Inhalation	hematopoietic system   vascular system	Not classified	Human	NOAEL Not available	occupational exposure
toluene	Inhalation	gastrointestinal tract	Not classified	Multiple animal species	NOAEL 11.3 mg/l	15 weeks
toluene	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 625 mg/kg/day	13 weeks
toluene	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
toluene	Ingestion	liver   kidney and/or bladder	Not classified	Multiple animal species	NOAEL 2,500 mg/kg/day	13 weeks
toluene	Ingestion	hematopoietic system	Not classified	Mouse	NOAEL 600 mg/kg/day	14 days
toluene	Ingestion	endocrine system	Not classified	Mouse	NOAEL 105 mg/kg/day	28 days
toluene	Ingestion	immune system	Not classified	Mouse	NOAEL 105 mg/kg/day	4 weeks

**Aspiration Hazard**

Name	Value
toluene	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
Propane, 1,2,3-trichloro-, polymer with 1,1'-[methylenebis(oxy)]bis[2-chloroethane] and sodium sulfide (Na <sub>2</sub> (Sx)), reduced	68611-50-7		Data not available or insufficient for classification			N/A
Calcium carbonate	471-34-1	Green algae	Experimental	72 hours	EC50	>100 mg/l
Calcium carbonate	471-34-1	Rainbow trout	Experimental	96 hours	LC50	>100 mg/l
Calcium carbonate	471-34-1	Water flea	Experimental	48 hours	EC50	>100 mg/l
Calcium carbonate	471-34-1	Green algae	Experimental	72 hours	EC10	100 mg/l
toluene	108-88-3	Coho Salmon	Experimental	96 hours	LC50	5.5 mg/l
toluene	108-88-3	Grass Shrimp	Experimental	96 hours	LC50	9.5 mg/l
toluene	108-88-3	Green Algae	Experimental	72 hours	EC50	12.5 mg/l
toluene	108-88-3	Leopard frog	Experimental	9 days	LC50	0.39 mg/l
toluene	108-88-3	Pink Salmon	Experimental	96 hours	LC50	6.41 mg/l
toluene	108-88-3	Water flea	Experimental	48 hours	EC50	3.78 mg/l
toluene	108-88-3	Coho Salmon	Experimental	40 days	NOEC	1.39 mg/l
toluene	108-88-3	Diatom	Experimental	72 hours	NOEC	10 mg/l
toluene	108-88-3	Water flea	Experimental	7 days	NOEC	0.74 mg/l
toluene	108-88-3	Activated sludge	Experimental	12 hours	IC50	292 mg/l
toluene	108-88-3	Bacteria	Experimental	16 hours	NOEC	29 mg/l
toluene	108-88-3	Bacteria	Experimental	24 hours	EC50	84 mg/l
toluene	108-88-3	Redworm	Experimental	28 days	LC50	>150 mg per kg of bodyweight
toluene	108-88-3	Soil microbes	Experimental	28 days	NOEC	<26 mg/kg (Dry Weight)
Carbon black	1333-86-4	Activated sludge	Experimental	3 hours	EC50	>=100 mg/l
Carbon black	1333-86-4		Data not available or insufficient for classification			N/A
Quartz	14808-60-7	Green Algae	Estimated	72 hours	EC50	440 mg/l
Quartz	14808-60-7	Water flea	Estimated	48 hours	EC50	7,600 mg/l
Quartz	14808-60-7	Zebra Fish	Estimated	96 hours	LC50	5,000 mg/l
Quartz	14808-60-7	Green Algae	Estimated	72 hours	NOEC	60 mg/l

### 12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Propane, 1,2,3-trichloro-, polymer with 1,1'-[methylenebis(oxy)]bis[2-chloroethane] and sodium sulfide (Na <sub>2</sub> (Sx)), reduced	68611-50-7	Data not availbl-insufficient			N/A	
Calcium carbonate	471-34-1	Data not availbl-insufficient			N/A	
toluene	108-88-3	Experimental Photolysis		Photolytic half-life (in air)	5.2 days (t 1/2)	
toluene	108-88-3	Experimental Biodegradation	20 days	BOD	80 % BOD/ThBOD	APHA Std Meth Water/Wastewater
Carbon black	1333-86-4	Data not availbl-insufficient			N/A	
Quartz	14808-60-7	Data not availbl-insufficient			N/A	

### 12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Propane, 1,2,3-trichloro-, polymer with 1,1'-[methylenebis(oxy)]bis[2-chloroethane] and sodium sulfide (Na <sub>2</sub> (Sx)), reduced	68611-50-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Calcium carbonate	471-34-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
toluene	108-88-3	Experimental BCF - Other	72 hours	Bioaccumulation factor	90	
toluene	108-88-3	Experimental Bioconcentration		Log Kow	2.73	
Carbon black	1333-86-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Quartz	14808-60-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

### 12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
toluene	108-88-3	Experimental Mobility in Soil	Koc	37 l/kg	

### 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.

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Combustion products will include halogen acid (HCl/HF/HBr). 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)**

08 04 10 Waste adhesives and sealants other than those mentioned in 08 04 09

**SECTION 14: Transportation information**

Not hazardous for transportation.

	<b>Ground Transport (ADR)</b>	<b>Air Transport (IATA)</b>	<b>Marine Transport (IMDG)</b>
<b>14.1 UN number</b>	No data available.	No data available.	No data available.
<b>14.2 UN proper shipping name</b>	No data available.	No data available.	No data available.
<b>14.3 Transport hazard class(es)</b>	No data available.	No data available.	No data available.
<b>14.4 Packing group</b>	No data available.	No data available.	No data available.
<b>14.5 Environmental hazards</b>	No data available.	No data available.	No data available.
<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 Tunnel Code</b>	No data available.	Not applicable.	No data available.
<b>ADR Classification Code</b>	No data available.	No data available.	No data available.
<b>ADR Transport Category</b>	No data available.	No data available.	No data available.
<b>ADR Multiplier</b>	No data available.	No data available.	No data available.
<b>IMDG Segregation Code</b>	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

<u>Ingredient</u>	<u>CAS Nbr</u>	<u>Classification</u>	<u>Regulation</u>
Carbon black	1333-86-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Quartz	14808-60-7	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
toluene	108-88-3	Gr. 3: Not classifiable	International Agency for Research on Cancer

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

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

<u>Ingredient</u>	<u>CAS Nbr</u>
toluene	108-88-3

Restriction status: listed in REACH Annex XVII

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

#### Global inventory status

Contact 3M for more information. 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.

### 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

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

### Revision information:

EU Section 09: pH information information was added.  
Section 02: CLP Classification Statements information was added.  
Label: CLP Classification information was deleted.  
Label: CLP Supplemental Hazard Statements information was added.  
Section 03: Composition table % Column heading information was added.  
Section 3: Composition/ Information of ingredients table information was modified.  
Section 03: Substance not applicable information was added.  
Section 04: Information on toxicological effects information was modified.  
Section 5: Hazardous combustion products table information was modified.  
Section 6: Accidental release clean-up information information was modified.  
Section 6: Accidental release personal information information was modified.  
Section 7: Precautions safe handling information information was modified.  
Section 8: glove data value information was deleted.  
Section 8: Occupational exposure limit table information was modified.  
Section 8: Personal Protection - Skin/hand information information was modified.  
Section 8: Skin protection - recommended gloves text information was deleted.  
Section 09: Color information was added.  
Section 9: Evaporation Rate information information was deleted.  
Section 9: Explosive properties information information was deleted.  
Section 09: Kinematic Viscosity information information was added.  
Section 9: Melting point information information was modified.  
Section 09: Odor information was added.  
Sections 3 and 9: Odour, colour, grade information information was deleted.  
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: Aspiration Hazard Table information was added.  
Section 11: Aspiration Hazard text information was deleted.  
Section 11: Carcinogenicity Table information was modified.  
Section 11: Classification disclaimer information was modified.  
Section 11: Germ Cell Mutagenicity Table information was modified.  
Section 11: Health Effects - Ingestion information information was modified.  
Section 11: Health Effects - Inhalation information information was modified.  
Section 11: No endocrine disruptor information available warning information was added.  
Section 11: Reproductive and/or Developmental Effects text information was deleted.  
Section 11: Reproductive Toxicity Table information was modified.  
Section 11: Reproductive/developmental effects information information was added.  
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 modified.  
Section 11: Target Organs - Single Table information was modified.  
Section 12: 12.6. Endocrine Disrupting Properties information was added.  
Section 12: 12.7. Other adverse effects information was modified.  
Section 12: Component ecotoxicity information information was modified.  
Section 12: Contact manufacturer for more detail. information was deleted.  
Section 12: Mobility in soil information information was added.  
Section 12: No endocrine disruptor information available warning information was added.  
Section 12: Persistence and Degradability information information was modified.  
Section 12: Bioaccumulative 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 Multiplier – Main Heading information was added.  
Section 14 Multiplier – Regulation Data information was added.  
Section 14 Other Dangerous Goods – Main Heading information was added.  
Section 14 Other Dangerous Goods – Regulation Data information was added.  
Section 14 Packing Group – Main Heading information was added.  
Section 14 Packing Group – Regulation Data information was added.  
Section 14 Proper Shipping Name information was added.  
Section 14 Regulations – Main Headings information was added.  
Section 14 Segregation – Regulation Data information was added.  
Section 14 Segregation Code – Main Heading information was added.  
Section 14 Special Precautions – Main Heading information was added.  
Section 14 Special Precautions – Regulation Data information was added.  
Section 14 Transport Category – Main Heading information was added.  
Section 14 Transport Category – Regulation Data information was added.  
Section 14 Transport in bulk – Regulation Data information was added.  
Section 14 Transport in bulk according to Annex II of Marpol and the IBC Code – Main Heading information was added.  
Section 14 Tunnel Code – Main Heading information was added.  
Section 14 Tunnel Code – Regulation Data information was added.  
Section 14 UN Number Column data information was added.  
Section 14 UN Number information was added.  
Section 14: Transportation classification information was deleted.  
Section 15: Carcinogenicity information information was modified.  
Section 15: Restrictions on manufacture ingredients information 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 modified.  
Section 16: UK disclaimer information was deleted.

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