



## Safety Data Sheet

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

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

#### 1.1. Product identifier

3M Scotchkote Epoxy Coating EA4 2217, Grey (Part A)

#### Product Identification Numbers

GR-2001-2568-4

7100010677

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

##### Identified uses

Coating.

#### 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:

Flammable Liquid, Category 2 - Flam. Liq. 2; H225  
Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318  
Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315  
Skin Sensitization, Category 1 - Skin Sens. 1; H317  
Hazardous to the Aquatic Environment (Chronic), Category 2 - Aquatic Chronic 2; H411

For full text of H phrases, see Section 16.

## 2.2. Label elements

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

#### SIGNAL WORD

DANGER.

#### Symbols:

GHS02 (Flame) | GHS05 (Corrosion) | GHS07 (Exclamation mark) | GHS09 (Environment) |

#### Pictograms



#### Ingredients:

Ingredient	CAS Nbr	EC No.	% by Wt
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	500-033-5	15 - 40
Butan-1-ol	71-36-3	200-751-6	1 - 5
Formaldehyde	50-00-0	200-001-8	< 0.05

#### HAZARD STATEMENTS:

H225	Highly flammable liquid and vapour.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.

#### PRECAUTIONARY STATEMENTS

#### Prevention:

P210A	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280D	Wear protective gloves, protective clothing, and eye/face 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.
P310	Immediately call a POISON CENTRE or doctor/physician.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

#### Disposal:

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.
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50% of the mixture consists of components of unknown acute inhalation toxicity.  
Contains 1% of components with unknown hazards to the aquatic environment.

#### Notes on labelling

**3M Scotchkote Epoxy Coating EA4 2217, Grey (Part A)**

NOTA P applies to CASRN 64742-82-1.

**2.3. Other hazards**

None known.

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

Ingredient	CAS Nbr	EC No.	REACH Registration No.	% by Wt	Classification
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	500-033-5		15 - 40	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 2, H411
Limestone	1317-65-3	215-279-6		10 - 30	Substance with a Community level exposure limit in the workplace
Titanium dioxide	13463-67-7	236-675-5		7 - 13	Substance with a Community level exposure limit in the workplace
Xylene	1330-20-7	215-535-7	01-2119488216-32	7 - 13	Flam. Liq. 3, H226; Acute Tox. 4, H332; Acute Tox. 4, H312; Skin Irrit. 2, H315 - Nota C
Chlorite-group minerals	1318-59-8	215-285-9		5 - 10	Substance not classified as hazardous
4-Methylpentan-2-one	108-10-1	203-550-1		3 - 7	Flam. Liq. 2, H225; Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335; EUH066
Benzoguanamine-formaldehyde-butanol polymer	68002-26-6			1 - 5	Substance not classified as hazardous
Butan-1-ol	71-36-3	200-751-6	01-2119484630-38	1 - 5	Flam. Liq. 3, H226; Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Dam. 1, H318; STOT SE 3, H336; STOT SE 3, H335
Ethylbenzene	100-41-4	202-849-4		1 - 5	Flam. Liq. 2, H225; Acute Tox. 4, H332; Asp. Tox. 1, H304; STOT RE 2, H373 Aquatic Chronic 3, H412
Trizinc bis(orthophosphate)	7779-90-0	231-944-3	01-2119485044-40	1 - 5	Aquatic Acute 1, H400,M=1; Aquatic Chronic 1, H410,M=1
4-Hydroxy-4-methylpentan-2-one	123-42-2	204-626-7	01-2119473975-21	1 - 5	Eye Irrit. 2, H319
Talc	14807-96-6	238-877-9		1 - 5	Substance with a Community level exposure limit in the workplace
Quaternary ammonium compounds, benzylbis(hydrogenated tallow alkyl)methyl, chlorides	61789-73-9	263-082-9		0.1 - 1	Aquatic Acute 1, H400,M=1; Aquatic Chronic 1, H410,M=1
2-Butoxyethanol	111-76-2	203-905-0	01-	< 1	Acute Tox. 4, H332; Acute

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			2119475108-36		Tox. 4, H312; Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319
Toluene	108-88-3	203-625-9		0 - 0.5	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 Eye Irrit. 2, H319
Formaldehyde	50-00-0	200-001-8	01-2119488953-20	< 0.05	Acute Tox. 2, H330; Acute Tox. 3, H311; Acute Tox. 3, H301; Skin Corr. 1B, H314; Skin Sens. 1A, H317; Muta. 2, H341; Carc. 1B, H350; STOT SE 3, H335 - Nota B,D

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

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

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

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

**Skin contact**

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

**Eye contact**

Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

**If swallowed**

Do not induce vomiting. Get immediate medical attention.

**4.2. Most important symptoms and effects, both acute and delayed**

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 flammable liquids such as dry chemical or carbon dioxide to extinguish.

**5.2. Special hazards arising from the substance or mixture**

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

**Hazardous Decomposition or By-Products**

## 3M Scotchkote Epoxy Coating EA4 2217, Grey (Part A)

### Substance

Aldehydes.  
Carbon monoxide.  
Carbon dioxide.

### Condition

During combustion.  
During combustion.  
During combustion.

### 5.3. Advice for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. 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. Warning! A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. 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 using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible.

### 6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

For industrial or professional use only. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. 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. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (eg. gloves, respirators...) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapour accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

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

Store in a well-ventilated place. Keep cool. Keep container tightly closed to prevent contamination with water or air. If contamination is suspected, do not reseal container. Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidising agents. Store away from amines.

### 7.3. Specific end use(s)

### 3M Scotchkote Epoxy Coating EA4 2217, Grey (Part A)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Ethylbenzene	100-41-4	UK HSC	TWA:441 mg/m <sup>3</sup> (100 ppm);STEL:552 mg/m <sup>3</sup> (125 ppm)	SKIN
4-Methylpentan-2-one	108-10-1	UK HSC	TWA:208 mg/m <sup>3</sup> (50 ppm);STEL:416 mg/m <sup>3</sup> (100 ppm)	SKIN
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
2-Butoxyethanol	111-76-2	UK HSC	TWA:123 mg/m <sup>3</sup> (25 ppm);STEL:246 mg/m <sup>3</sup> (50 ppm)	SKIN
4-Hydroxy-4-methylpentan-2-one	123-42-2	UK HSC	TWA: 241 mg/m <sup>3</sup> (50 ppm); STEL: 362 mg/m <sup>3</sup> (75 ppm)	
Limestone	1317-65-3	UK HSC	TWA(as inhalable dust):10 mg/m <sup>3</sup> ;TWA(as respirable dust):4 mg/m <sup>3</sup> ;TWA(Inhalable):10 mg/m <sup>3</sup> ;TWA(respirable):4 mg/m <sup>3</sup>	
Xylene	1330-20-7	UK HSC	TWA:220 mg/m <sup>3</sup> (50 ppm);STEL:441 mg/m <sup>3</sup> (100 ppm)	SKIN
Titanium dioxide	13463-67-7	UK HSC	TWA(Inhalable):10 mg/m <sup>3</sup> ;TWA(respirable):4 mg/m <sup>3</sup>	
Talc	14807-96-6	UK HSC	TWA(as respirable dust):1 mg/m <sup>3</sup>	
Formaldehyde	50-00-0	UK HSC	TWA:2.5 mg/m <sup>3</sup> (2 ppm);STEL:2.5 mg/m <sup>3</sup> (2 ppm)	
Butan-1-ol	71-36-3	UK HSC	STEL:154 mg/m <sup>3</sup> (50 ppm)	SKIN

UK HSC : UK Health and Safety Commission

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

#### Biological limit values

Ingredient	CAS Nbr	Agency	Determinant	Biological Specimen	Sampling Time	Value	Additional comments
4-Methylpentan-2-one	108-10-1	UK EH40 BMGVs	4-Methylpentan-2-one	Urine	EOS	20 umol/L	
2-Butoxyethanol	111-76-2	UK EH40 BMGVs	Butoxyacetic acid	Creatinine in urine	EOS	240 mmol/mol	
Xylene	1330-20-7	UK EH40 BMGVs	Methyl hippuric acid	Creatinine in urine	EOS	650 mmol/mol	

UK EH40 BMGVs : UK. EH40 Biological Monitoring Guidance Values (BMGVs)

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EOS: End of shift.

### 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. Use explosion-proof ventilation 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:

Full face shield.

Indirect vented goggles.

##### 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. Wear protective gloves and 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

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

##### 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 formaldehyde and particulates

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.

## SECTION 9: Physical and chemical properties

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

Physical state	Liquid.
Specific Physical Form:	Thixotropic liquid.
Appearance/Odour	Pungent solvent odour; Grey colour
Odour threshold	No data available.
pH	No data available.
Boiling point/boiling range	$\geq 140$ °C
Melting point	Not applicable.
Flammability (solid, gas)	Not applicable.
Explosive properties	Not classified

## 3M Scotchkote Epoxy Coating EA4 2217, Grey (Part A)

<b>Oxidising properties</b>	Not classified
<b>Flash point</b>	$\geq 15$ °C [ <i>Test Method</i> :Closed Cup]
<b>Autoignition temperature</b>	$\geq 450$ °C
<b>Flammable Limits(LEL)</b>	$\geq 0,9$ %
<b>Flammable Limits(UEL)</b>	$\leq 13$ %
<b>Vapour pressure</b>	1,299.9 Pa [@ 25 °C ]
<b>Relative density</b>	1.45 [ <i>Ref Std</i> :WATER=1]
<b>Water solubility</b>	Negligible
<b>Solubility- non-water</b>	<i>No data available.</i>
<b>Partition coefficient: n-octanol/water</b>	<i>No data available.</i>
<b>Evaporation rate</b>	<i>No data available.</i>
<b>Vapour density</b>	<i>No data available.</i>
<b>Decomposition temperature</b>	<i>No data available.</i>
<b>Viscosity</b>	<i>No data available.</i>
<b>Density</b>	1.45 g/ml

### 9.2. Other information

EU Volatile Organic Compounds	<i>No data available.</i>
Percent volatile	25 %

## 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.

Sparks and/or flames.

Temperatures above the boiling point.

### 10.5 Incompatible materials

Amines.

Combustibles.

Reaction with water, alcohols, and amines is not hazardous if container can vent to the atmosphere to prevent pressure buildup.

Strong acids.

Strong bases.

Strong oxidising agents.

Water

### 10.6 Hazardous decomposition products

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

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information



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

### 11.1 Information on Toxicological effects

#### Signs and Symptoms of Exposure

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

##### Inhalation

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

##### Skin contact

Mild Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, and dryness. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

##### Eye contact

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

##### Ingestion

Chemical (aspiration) pneumonitis: Signs/symptoms may include coughing, gasping, choking, burning of the mouth, difficulty breathing, bluish coloured skin (cyanosis), and may be fatal. Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

#### Additional Health Effects:

##### Single exposure may cause target organ effects:

Auditory effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears. Central nervous system (CNS) depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

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

Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests. 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.

##### Reproductive/Developmental Toxicity:

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

##### Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

#### Toxicological Data

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

#### Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation-Vapour(4)		No data available; calculated ATE <sub>20</sub> - 50 mg/l

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	hr)		
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal	Rat	LD50 > 1,600 mg/kg
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Rat	LD50 > 1,000 mg/kg
Limestone	Dermal	Rat	LD50 > 2,000 mg/kg
Limestone	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
Limestone	Ingestion	Rat	LD50 6,450 mg/kg
Xylene	Dermal	Rabbit	LD50 > 4,200 mg/kg
Xylene	Inhalation-Vapour (4 hours)	Rat	LC50 29 mg/l
Xylene	Ingestion	Rat	LD50 3,523 mg/kg
Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Chlorite-group minerals	Dermal		LD50 estimated to be > 5,000 mg/kg
Chlorite-group minerals	Ingestion		LD50 estimated to be > 5,000 mg/kg
4-Methylpentan-2-one	Dermal	Rabbit	LD50 > 16,000 mg/kg
4-Methylpentan-2-one	Inhalation-Vapour (4 hours)	Rat	LC50 >8.2,<16.4 mg/l
4-Methylpentan-2-one	Ingestion	Rat	LD50 3,038 mg/kg
Butan-1-ol	Dermal	Rabbit	LD50 3,402 mg/kg
Butan-1-ol	Inhalation-Vapour (4 hours)	Rat	LC50 24 mg/l
Butan-1-ol	Ingestion	Rat	LD50 2,290 mg/kg
Ethylbenzene	Dermal	Rabbit	LD50 15,433 mg/kg
Ethylbenzene	Inhalation-Vapour (4 hours)	Rat	LC50 17.4 mg/l
Ethylbenzene	Ingestion	Rat	LD50 4,769 mg/kg
Talc	Dermal		LD50 estimated to be > 5,000 mg/kg
Talc	Ingestion		LD50 estimated to be > 5,000 mg/kg
Trizinc bis(orthophosphate)	Dermal		LD50 estimated to be > 5,000 mg/kg
Trizinc bis(orthophosphate)	Ingestion	Rat	LD50 > 5,000 mg/kg
4-Hydroxy-4-methylpentan-2-one	Dermal	Rabbit	LD50 13,645 mg/kg
4-Hydroxy-4-methylpentan-2-one	Ingestion	Rat	LD50 4,000 mg/kg
Benzoguanamine-formaldehyde-butanol polymer	Dermal		LD50 estimated to be > 5,000 mg/kg
Benzoguanamine-formaldehyde-butanol polymer	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
2-Butoxyethanol	Dermal	Guinea pig	LD50 > 2,000 mg/kg
2-Butoxyethanol	Inhalation-Vapour (4 hours)	Guinea pig	LC50 > 2.6 mg/l
2-Butoxyethanol	Ingestion	Guinea pig	LD50 1,414 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
Formaldehyde	Dermal	Rabbit	LD50 270 mg/kg
Formaldehyde	Inhalation-Gas (4 hours)	Rat	LC50 470 ppm
Formaldehyde	Ingestion	Rat	LD50 800 mg/kg

ATE = acute toxicity estimate

**3M Scotchkote Epoxy Coating EA4 2217, Grey (Part A)****Skin Corrosion/Irritation**

Name	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Rabbit	Mild irritant
Limestone	Rabbit	No significant irritation
Xylene	Rabbit	Mild irritant
Titanium dioxide	Rabbit	No significant irritation
Chlorite-group minerals	Professional judgement	No significant irritation
4-Methylpentan-2-one	Rabbit	Mild irritant
Butan-1-ol	Rabbit	Mild irritant
Ethylbenzene	Rabbit	Mild irritant
Talc	Rabbit	No significant irritation
4-Hydroxy-4-methylpentan-2-one	Rabbit	No significant irritation
2-Butoxyethanol	Rabbit	Irritant
Toluene	Rabbit	Irritant
Formaldehyde	official classification	Corrosive

**Serious Eye Damage/Irritation**

Name	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Rabbit	Moderate irritant
Limestone	Rabbit	No significant irritation
Xylene	Rabbit	Mild irritant
Titanium dioxide	Rabbit	No significant irritation
Chlorite-group minerals	Professional judgement	No significant irritation
4-Methylpentan-2-one	Rabbit	Mild irritant
Butan-1-ol	Rabbit	Severe irritant
Ethylbenzene	Rabbit	Moderate irritant
Talc	Rabbit	No significant irritation
4-Hydroxy-4-methylpentan-2-one	Rabbit	Severe irritant
2-Butoxyethanol	Rabbit	Severe irritant
Toluene	Rabbit	Moderate irritant
Formaldehyde	official classification	Corrosive

**Skin Sensitisation**

Name	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Human and animal	Sensitising
Titanium dioxide	Human and animal	Not classified
4-Methylpentan-2-one	Guinea pig	Not classified
Butan-1-ol	Human	Not classified
Ethylbenzene	Human	Not classified
2-Butoxyethanol	Guinea pig	Not classified
Toluene	Guinea pig	Not classified

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Formaldehyde	Guinea pig	Sensitising
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**Respiratory Sensitisation**

Name	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Human	Not classified
Talc	Human	Not classified
Formaldehyde	Human	Some positive data exist, but the data are not sufficient for classification

**Germ Cell Mutagenicity**

Name	Route	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	In vivo	Not mutagenic
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	In Vitro	Some positive data exist, but the data are not sufficient for classification
Xylene	In Vitro	Not mutagenic
Xylene	In vivo	Not mutagenic
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	In vivo	Not mutagenic
4-Methylpentan-2-one	In Vitro	Not mutagenic
Butan-1-ol	In vivo	Not mutagenic
Butan-1-ol	In Vitro	Some positive data exist, but the data are not sufficient for classification
Ethylbenzene	In vivo	Not mutagenic
Ethylbenzene	In Vitro	Some positive data exist, but the data are not sufficient for classification
Talc	In Vitro	Not mutagenic
Talc	In vivo	Not mutagenic
4-Hydroxy-4-methylpentan-2-one	In Vitro	Some positive data exist, but the data are not sufficient for classification
2-Butoxyethanol	In Vitro	Some positive data exist, but the data are not sufficient for classification
Toluene	In Vitro	Not mutagenic
Toluene	In vivo	Not mutagenic
Formaldehyde	In Vitro	Some positive data exist, but the data are not sufficient for classification
Formaldehyde	In vivo	Mutagenic

**Carcinogenicity**

Name	Route	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Xylene	Dermal	Rat	Not carcinogenic
Xylene	Ingestion	Multiple animal species	Not carcinogenic
Xylene	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification
Titanium dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium dioxide	Inhalation	Rat	Carcinogenic.
4-Methylpentan-2-one	Inhalation	Multiple animal species	Carcinogenic.
Ethylbenzene	Inhalation	Multiple animal species	Carcinogenic.
Talc	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
2-Butoxyethanol	Inhalation	Multiple	Some positive data exist, but the data are not

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		animal species	sufficient for classification
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
Formaldehyde	Not specified.	Human and animal	Carcinogenic.

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

Name	Route	Value	Species	Test result	Exposure Duration
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal	Not classified for development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	2 generation
Limestone	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	prematuring & during gestation
Xylene	Inhalation	Not classified for female reproduction	Human	NOAEL Not available	occupational exposure
Xylene	Ingestion	Not classified for development	Mouse	NOAEL Not available	during organogenesis
Xylene	Inhalation	Not classified for development	Multiple animal species	NOAEL Not available	during gestation
4-Methylpentan-2-one	Inhalation	Not classified for female reproduction	Multiple animal species	NOAEL 8.2 mg/l	2 generation
4-Methylpentan-2-one	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	13 weeks
4-Methylpentan-2-one	Inhalation	Not classified for male reproduction	Multiple animal species	NOAEL 8.2 mg/l	2 generation
4-Methylpentan-2-one	Inhalation	Not classified for development	Mouse	NOAEL 12.3 mg/l	during organogenesis
Butan-1-ol	Ingestion	Not classified for female reproduction	Rat	NOAEL 5,000 mg/kg/day	prematuring & during gestation
Butan-1-ol	Inhalation	Not classified for male reproduction	Rat	NOAEL 18 mg/l	6 weeks
Butan-1-ol	Inhalation	Not classified for development	Rat	NOAEL 10.6 mg/l	during gestation
Ethylbenzene	Inhalation	Not classified for development	Rat	NOAEL 4.3 mg/l	prematuring & during gestation
Talc	Ingestion	Not classified for development	Rat	NOAEL 1,600 mg/kg	during organogenesis
4-Hydroxy-4-methylpentan-2-one	Ingestion	Not classified for female reproduction	Rat	NOAEL 300 mg/kg/day	prematuring & during gestation
4-Hydroxy-4-methylpentan-2-one	Ingestion	Not classified for male reproduction	Rat	NOAEL 300 mg/kg/day	prematuring & during gestation

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					gestation
4-Hydroxy-4-methylpentan-2-one	Ingestion	Not classified for development	Rat	NOAEL 300 mg/kg/day	prematuring & during gestation
2-Butoxyethanol	Dermal	Not classified for development	Rat	NOAEL 1,760 mg/kg/day	during gestation
2-Butoxyethanol	Ingestion	Not classified for development	Rat	NOAEL 100 mg/kg/day	during organogenesis
2-Butoxyethanol	Inhalation	Not classified for development	Multiple animal species	NOAEL 0.48 mg/l	during organogenesis
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
Formaldehyde	Ingestion	Not classified for male reproduction	Rat	NOAEL 100 mg/kg	not applicable
Formaldehyde	Inhalation	Not classified for development	Rat	NOAEL 10 ppm	during gestation

**Lactation**

Name	Route	Species	Value
Xylene	Ingestion	Mouse	Not classified for 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
Limestone	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.812 mg/l	90 minutes
Xylene	Inhalation	auditory system	Causes damage to organs	Rat	LOAEL 6.3 mg/l	8 hours
Xylene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Xylene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Xylene	Inhalation	eyes	Not classified	Rat	NOAEL 3.5 mg/l	not available
Xylene	Inhalation	liver	Not classified	Multiple animal species	NOAEL Not available	
Xylene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	
Xylene	Ingestion	eyes	Not classified	Rat	NOAEL 250 mg/kg	not applicable
4-Methylpentan-2-one	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	LOAEL 0.1 mg/l	2 hours
4-Methylpentan-2-one	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL 0.9 mg/l	7 minutes
4-Methylpentan-2-one	Inhalation	vascular system	Not classified	Dog	NOAEL Not available	not available
4-Methylpentan-2-one	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Rat	LOAEL 900 mg/kg	not applicable
Butan-1-ol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Butan-1-ol	Inhalation	respiratory irritation	May cause respiratory irritation	official classifica	NOAEL Not available	

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				tion		
Butan-1-ol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Ethylbenzene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Ethylbenzene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	
Ethylbenzene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
4-Hydroxy-4-methylpentan-2-one	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	
4-Hydroxy-4-methylpentan-2-one	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
4-Hydroxy-4-methylpentan-2-one	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
4-Hydroxy-4-methylpentan-2-one	Ingestion	blood	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 1,882 mg/kg	not applicable
4-Hydroxy-4-methylpentan-2-one	Ingestion	liver	Not classified	Rat	NOAEL 1,882 mg/kg	not applicable
2-Butoxyethanol	Dermal	endocrine system	Not classified	Rabbit	NOAEL 902 mg/kg	6 hours
2-Butoxyethanol	Dermal	liver	Not classified	Rabbit	LOAEL 72 mg/kg	not available
2-Butoxyethanol	Dermal	kidney and/or bladder	Not classified	Rabbit	LOAEL 451 mg/kg	6 hours
2-Butoxyethanol	Dermal	blood	Not classified	Multiple animal species	NOAEL Not available	
2-Butoxyethanol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
2-Butoxyethanol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
2-Butoxyethanol	Inhalation	blood	Not classified	Multiple animal species	NOAEL Not available	
2-Butoxyethanol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
2-Butoxyethanol	Ingestion	blood	Not classified	Multiple animal species	NOAEL Not available	
2-Butoxyethanol	Ingestion	kidney and/or bladder	Not classified	Human	NOAEL Not available	poisoning and/or abuse
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
Formaldehyde	Inhalation	respiratory system	Causes damage to organs	Rat	LOAEL 128 ppm	6 hours
Formaldehyde	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	

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**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	auditory system   heart   endocrine system   hematopoietic system   liver   eyes   kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
Limestone	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Xylene	Inhalation	nervous system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.4 mg/l	4 weeks
Xylene	Inhalation	auditory system	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 7.8 mg/l	5 days
Xylene	Inhalation	liver	Not classified	Multiple animal species	NOAEL Not available	
Xylene	Inhalation	heart   endocrine system   hematopoietic system   muscles   kidney and/or bladder   respiratory system	Not classified	Multiple animal species	NOAEL 3.5 mg/l	13 weeks
Xylene	Ingestion	auditory system	Not classified	Rat	NOAEL 900 mg/kg/day	2 weeks
Xylene	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 1,500 mg/kg/day	90 days
Xylene	Ingestion	liver	Not classified	Multiple animal species	NOAEL Not available	
Xylene	Ingestion	heart   skin   endocrine system   bone, teeth, nails, and/or hair   hematopoietic system   immune system   nervous system   respiratory system	Not classified	Mouse	NOAEL 1,000 mg/kg/day	103 weeks
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium dioxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
4-Methylpentan-2-one	Inhalation	liver	Not classified	Rat	NOAEL 0.41 mg/l	13 weeks
4-Methylpentan-2-one	Inhalation	heart	Not classified	Multiple animal species	NOAEL 0.8 mg/l	2 weeks
4-Methylpentan-2-one	Inhalation	kidney and/or bladder	Not classified	Multiple animal species	NOAEL 0.4 mg/l	90 days
4-Methylpentan-2-one	Inhalation	respiratory system	Not classified	Multiple	NOAEL 4.1	14 weeks



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				animal species	mg/l	
4-Methylpentan-2-one	Inhalation	endocrine system   hematopoietic system	Not classified	Multiple animal species	NOAEL 0.41 mg/l	90 days
4-Methylpentan-2-one	Inhalation	nervous system	Not classified	Multiple animal species	NOAEL 0.41 mg/l	13 weeks
4-Methylpentan-2-one	Ingestion	endocrine system   hematopoietic system   liver   kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
4-Methylpentan-2-one	Ingestion	heart   immune system   muscles   nervous system   respiratory system	Not classified	Rat	NOAEL 1,040 mg/kg/day	120 days
Butan-1-ol	Inhalation	blood	Not classified	Rat	NOAEL 0.3 mg/l	3 months
Butan-1-ol	Inhalation	auditory system	Not classified	Human	NOAEL Not available	occupational exposure
Butan-1-ol	Inhalation	liver   kidney and/or bladder   respiratory system	Not classified	Guinea pig	NOAEL Not available	3 months
Butan-1-ol	Inhalation	nervous system	Not classified	Rat	NOAEL 9.09 mg/l	13 weeks
Butan-1-ol	Ingestion	blood	Not classified	Rat	NOAEL 500 mg/kg/day	13 weeks
Ethylbenzene	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.1 mg/l	2 years
Ethylbenzene	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 1.1 mg/l	103 weeks
Ethylbenzene	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 3.4 mg/l	28 days
Ethylbenzene	Inhalation	auditory system	Not classified	Rat	NOAEL 2.4 mg/l	5 days
Ethylbenzene	Inhalation	endocrine system	Not classified	Mouse	NOAEL 3.3 mg/l	103 weeks
Ethylbenzene	Inhalation	bone, teeth, nails, and/or hair   muscles	Not classified	Multiple animal species	NOAEL 4.2 mg/l	90 days
Ethylbenzene	Inhalation	heart   immune system   respiratory system	Not classified	Multiple animal species	NOAEL 3.3 mg/l	2 years
Ethylbenzene	Ingestion	liver   kidney and/or bladder	Not classified	Rat	NOAEL 680 mg/kg/day	6 months
Talc	Inhalation	pneumoconiosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Talc	Inhalation	pulmonary fibrosis   respiratory system	Not classified	Rat	NOAEL 18 mg/m <sup>3</sup>	113 weeks
4-Hydroxy-4-methylpentan-2-one	Inhalation	blood   liver   kidney and/or bladder	Not classified	Rat	NOAEL 4.5 mg/l	6 weeks
4-Hydroxy-4-methylpentan-2-one	Ingestion	endocrine system   blood   liver   kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	44 days
2-Butoxyethanol	Dermal	blood	Not classified	Multiple animal species	NOAEL Not available	not available
2-Butoxyethanol	Dermal	endocrine system	Not classified	Rabbit	NOAEL 150 mg/kg/day	90 days
2-Butoxyethanol	Inhalation	liver	Not classified	Rat	NOAEL 2.4 mg/l	14 weeks
2-Butoxyethanol	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 0.15 mg/l	14 weeks
2-Butoxyethanol	Inhalation	blood	Not classified	Rat	LOAEL 0.15 mg/l	6 months

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2-Butoxyethanol	Inhalation	endocrine system	Not classified	Dog	LOAEL 1.9 mg/l	8 days
2-Butoxyethanol	Ingestion	blood	Not classified	Rat	LOAEL 69 mg/kg/day	13 weeks
2-Butoxyethanol	Ingestion	kidney and/or bladder	Not classified	Multiple animal species	NOAEL Not available	not available
Toluene	Inhalation	auditory system   nervous system   eyes   olfactory system	Causes damage to organs through 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	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
Formaldehyde	Dermal	respiratory system	Not classified	Mouse	NOAEL 80 mg/kg/day	60 weeks
Formaldehyde	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 0.3 ppm	28 months
Formaldehyde	Inhalation	liver	Not classified	Rat	NOAEL 20 ppm	13 weeks
Formaldehyde	Inhalation	hematopoietic system	Not classified	Mouse	NOAEL 15 ppm	3 weeks
Formaldehyde	Inhalation	nervous system	Not classified	Mouse	NOAEL 10 ppm	13 weeks
Formaldehyde	Inhalation	endocrine system   immune system   muscles   kidney and/or bladder	Not classified	Rat	NOAEL 15 ppm	28 months
Formaldehyde	Inhalation	eyes   vascular system	Not classified	Rat	NOAEL 14.3 ppm	2 years
Formaldehyde	Inhalation	heart	Not classified	Mouse	NOAEL 14.3 ppm	2 years
Formaldehyde	Ingestion	liver	Not classified	Rat	NOAEL 300 mg/kg/day	2 years
Formaldehyde	Ingestion	immune system	Not classified	Rat	NOAEL 20 mg/kg/day	4 weeks
Formaldehyde	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 15 mg/kg/day	24 months
Formaldehyde	Ingestion	nervous system	Not classified	Rat	NOAEL 109 mg/kg/day	2 years
Formaldehyde	Ingestion	heart   endocrine	Not classified	Rat	NOAEL 300	2 years

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		system   hematopoietic system   respiratory system   vascular system			mg/kg/day	
Formaldehyde	Ingestion	skin   muscles   eyes	Not classified	Rat	NOAEL 109 mg/kg/day	2 years

**Aspiration Hazard**

Name	Value
Xylene	Aspiration hazard
4-Methylpentan-2-one	Some positive data exist, but the data are not sufficient for classification
Butan-1-ol	Some positive data exist, but the data are not sufficient for classification
Ethylbenzene	Aspiration hazard
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.

**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 Nbr	Organism	Type	Exposure	Test endpoint	Test result
4,4'-Isopropylidenediphenol , oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	Water flea	Estimated	48 hours	LC50	0.95 mg/l
4,4'-Isopropylidenediphenol , oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	Green Algae	Experimental	72 hours	EC50	>11 mg/l
4,4'-Isopropylidenediphenol , oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	Rainbow trout	Experimental	96 hours	LC50	1.2 mg/l
4,4'-Isopropylidenediphenol , oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	Green Algae	Experimental	72 hours	NOEC	4.2 mg/l
4,4'-Isopropylidenediphenol , oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	Water flea	Experimental	21 days	NOEC	0.3 mg/l
Limestone	1317-65-3	Western Mosquitofish	Experimental	96 hours	LC50	>100 mg/l
Limestone	1317-65-3	Rainbow trout	Experimental	42 days	NOEC	>100 mg/l

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Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	EC50	>10,000 mg/l
Titanium dioxide	13463-67-7	Fathead minnow	Experimental	96 hours	LC50	>100 mg/l
Titanium dioxide	13463-67-7	Water flea	Experimental	48 hours	EC50	>100 mg/l
Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	NOEC	5,600 mg/l
Xylene	1330-20-7		Data not available or insufficient for classification			
Chlorite-group minerals	1318-59-8		Data not available or insufficient for classification			
4-Methylpentan-2-one	108-10-1	Water flea	Experimental	48 hours	EC50	170 mg/l
4-Methylpentan-2-one	108-10-1	Fathead minnow	Experimental	96 hours	LC50	505 mg/l
4-Methylpentan-2-one	108-10-1	Green Algae	Experimental	96 hours	EC50	400 mg/l
4-Methylpentan-2-one	108-10-1	Fathead minnow	Experimental	32 days	NOEC	57 mg/l
4-Methylpentan-2-one	108-10-1	Water flea	Experimental	21 days	NOEC	78 mg/l
Benzoguanamine-formaldehyde-butanol polymer	68002-26-6		Data not available or insufficient for classification			
Butan-1-ol	71-36-3	Water flea	Experimental	48 hours	EC50	>500 mg/l
Butan-1-ol	71-36-3	Bluegill	Experimental	96 hours	LC50	100 mg/l
Butan-1-ol	71-36-3	Crustacea other	Experimental	96 hours	LC50	2,100 mg/l
Butan-1-ol	71-36-3	Green Algae	Experimental	96 hours	EC50	225 mg/l
Butan-1-ol	71-36-3	Green Algae	Experimental	72 hours	NOEC	180 mg/l
Butan-1-ol	71-36-3	Water flea	Experimental	21 days	NOEC	4.1 mg/l
4-Hydroxy-4-methylpentan-2-one	123-42-2	Water flea	Experimental	48 hours	EC50	>1,000 mg/l
4-Hydroxy-4-methylpentan-2-one	123-42-2	Bluegill	Experimental	96 hours	LC50	420 mg/l
4-Hydroxy-4-methylpentan-2-one	123-42-2	Green algae	Experimental	72 hours	EC50	>1,000 mg/l
4-Hydroxy-4-methylpentan-2-one	123-42-2	Inland Silverside	Experimental	96 hours	LC50	420 mg/l
4-Hydroxy-4-methylpentan-2-one	123-42-2	Green algae	Experimental	72 hours	NOEC	1,000 mg/l
4-Hydroxy-4-methylpentan-2-one	123-42-2	Water flea	Experimental	21 days	NOEC	>100 mg/l
Ethylbenzene	100-41-4	Water flea	Experimental	48 hours	EC50	1.8 mg/l
Ethylbenzene	100-41-4	Rainbow trout	Experimental	96 hours	LC50	4.2 mg/l
Ethylbenzene	100-41-4	Mysid Shrimp	Experimental	96 hours	LC50	2.6 mg/l
Ethylbenzene	100-41-4	Green Algae	Experimental	96 hours	EC50	3.6 mg/l
Ethylbenzene	100-41-4	Atlantic Silverside	Experimental	96 hours	LC50	5.1 mg/l
Ethylbenzene	100-41-4	Water flea	Experimental	7 days	NOEC	0.96 mg/l
Talc	14807-96-6		Data not available or insufficient for classification			

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Trizinc bis(orthophosphate)	7779-90-0	Rainbow trout	Experimental	96 hours	LC50	0.18 mg/l
2-Butoxyethanol	111-76-2	Rainbow trout	Experimental	96 hours	LC50	1,474 mg/l
2-Butoxyethanol	111-76-2	Green Algae	Experimental	72 hours	EC50	1,840 mg/l
2-Butoxyethanol	111-76-2	Eastern oyster	Experimental	96 hours	LC50	89.4 mg/l
2-Butoxyethanol	111-76-2	Water flea	Experimental	48 hours	EC50	1,550 mg/l
2-Butoxyethanol	111-76-2	Water flea	Experimental	21 days	NOEC	100 mg/l
2-Butoxyethanol	111-76-2	Green Algae	Experimental	72 hours	Effect Concentration 10%	679 mg/l
Quaternary ammonium compounds, benzylbis(hydrogenated tallow alkyl)methyl, chlorides	61789-73-9	Green algae	Analogous Compound	72 hours	EC50	0.11 mg/l
Quaternary ammonium compounds, benzylbis(hydrogenated tallow alkyl)methyl, chlorides	61789-73-9	Water flea	Analogous Compound	48 hours	EC50	0.32 mg/l
Quaternary ammonium compounds, benzylbis(hydrogenated tallow alkyl)methyl, chlorides	61789-73-9	Bluegill	Analogous Compound	96 hours	LC50	1.33 mg/l
Quaternary ammonium compounds, benzylbis(hydrogenated tallow alkyl)methyl, chlorides	61789-73-9	Water flea	Analogous Compound	21 days	NOEC	0.18 mg/l
Quaternary ammonium compounds, benzylbis(hydrogenated tallow alkyl)methyl, chlorides	61789-73-9	Green algae	Analogous Compound	96 hours	NOEC	0.02 mg/l
Toluene	108-88-3	Fish other	Experimental	96 hours	LC50	6.41 mg/l
Toluene	108-88-3	Green Algae	Experimental	72 hours	EC50	12.5 mg/l
Toluene	108-88-3	Water flea	Experimental	48 hours	EC50	3.78 mg/l
Toluene	108-88-3	Coho Salmon	Experimental	96 hours	LC50	5.5 mg/l
Toluene	108-88-3	Coho salmon	Experimental	40 days	NOEC	1.39 mg/l
Toluene	108-88-3	Water flea	Experimental	7 days	NOEC	0.74 mg/l
Formaldehyde	50-00-0	Fish other	Experimental	96 hours	LC50	6.7 mg/l
Formaldehyde	50-00-0	Water flea	Experimental	48 hours	EC50	5.8 mg/l
Formaldehyde	50-00-0	Green algae	Experimental	72 hours	EC50	4.89 mg/l
Formaldehyde	50-00-0	Water flea	Experimental	21 days	NOEC	>=6.4 mg/l
Formaldehyde	50-00-0	Ricefish	Experimental	28 days	NOEC	>=48 mg/l

**12.2. Persistence and degradability**

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
4,4'-Isopropylidenediphenol,	25068-38-6	Experimental Biodegradation	28 days	BOD	0 % BOD/ThBOD	OECD 301C - MITI test (I)

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oligomeric reaction products with 1-chloro-2,3-epoxypropane						
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	Estimated Hydrolysis		Hydrolytic half-life	<2 days (t 1/2)	Other methods
Limestone	1317-65-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Titanium dioxide	13463-67-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Xylene	1330-20-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Chlorite-group minerals	1318-59-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
4-Methylpentan-2-one	108-10-1	Experimental Photolysis		Photolytic half-life (in air)	2.28 days (t 1/2)	Other methods
4-Methylpentan-2-one	108-10-1	Experimental Biodegradation	14 days	BOD	84 % weight	OECD 301C - MITI test (I)
Benzoguanamine-formaldehyde-butanol polymer	68002-26-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Butan-1-ol	71-36-3	Experimental Biodegradation	19 days	Dissolv. Organic Carbon Deplet	98 % weight	OECD 301E - Modified OECD Scre
4-Hydroxy-4-methylpentan-2-one	123-42-2	Experimental Biodegradation	14 days	BOD	90 % weight	OECD 301C - MITI test (I)
Ethylbenzene	100-41-4	Experimental Photolysis		Photolytic half-life (in air)	4.26 days (t 1/2)	Other methods
Ethylbenzene	100-41-4	Experimental Biodegradation	28 days	CO2 evolution	70-80 % weight	Other methods
Talc	14807-96-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Trizinc bis(orthophosphate)	7779-90-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
2-Butoxyethanol	111-76-2	Experimental Biodegradation	28 days	CO2 evolution	90.4 % weight	OECD 301B - Modified sturm or CO2
Quaternary ammonium compounds, benzylbis(hydrogenated tallow alkyl)methyl, chlorides	61789-73-9	Analogous Compound Biodegradation	28 days	BOD	0 % weight	OECD 301C - MITI test (I)
Toluene	108-88-3	Experimental Photolysis		Photolytic half-life (in air)	5.2 days (t 1/2)	Other methods
Toluene	108-88-3	Experimental Biodegradation	20 days	BOD	80 % weight	
Formaldehyde	50-00-0	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	99 % weight	OECD 301A - DOC Die Away Test
Formaldehyde	50-00-0	Experimental Photolysis		Photolytic half-life(in water)	1-2 hours (t 1/2)	Other methods

**12.3 : Bioaccumulative potential**

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	Experimental BCF-Carp	28 days	Bioaccumulation factor	<=42	OECD 305E - Bioaccumulation flow-through fish test
Limestone	1317-65-3	Data not available or insufficient for	N/A	N/A	N/A	N/A

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		classification				
Titanium dioxide	13463-67-7	Experimental BCF-Carp	42 days	Bioaccumulation factor	9.6	Other methods
Xylene	1330-20-7	Experimental BCF - Rainbow Tr	56 days	Bioaccumulation factor	14	Other methods
Chlorite-group minerals	1318-59-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
4-Methylpentan-2-one	108-10-1	Experimental Bioconcentration		Log Kow	1.31	Other methods
Benzoguanamine-formaldehyde-butanol polymer	68002-26-6	Estimated Bioconcentration		Bioaccumulation factor	6.4	Estimated: Bioconcentration factor
Butan-1-ol	71-36-3	Experimental Bioconcentration		Log Kow	0.88	Other methods
4-Hydroxy-4-methylpentan-2-one	123-42-2	Experimental Bioconcentration		Log Kow	-0.14	Other methods
Ethylbenzene	100-41-4	Experimental BCF - Other	42 days	Bioaccumulation factor	1	Other methods
Talc	14807-96-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Trizinc bis(orthophosphate)	7779-90-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
2-Butoxyethanol	111-76-2	Experimental Bioconcentration		Log Kow	0.81	Other methods
Quaternary ammonium compounds, benzylbis(hydrogenated tallow alkyl)methyl, chlorides	61789-73-9	Analogous Compound BCF - Bluegill	49 days	Bioaccumulation factor	13	Other methods
Toluene	108-88-3	Experimental Bioconcentration		Log Kow	2.73	Other methods
Formaldehyde	50-00-0	Experimental Bioconcentration		Log Kow	0.35	Other methods

#### 12.4. Mobility in soil

Please contact manufacturer for more details

#### 12.5. Results of the PBT and vPvB assessment

No information available at this time, contact manufacturer for more details

#### 12.6. Other adverse effects

Material	CAS Nbr	Ozone Depletion Potential	Global Warming Potential
MIBK	108-10-1	0	

## SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

See Section 11.1 Information on toxicological effects

Incinerate in a permitted waste incineration 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

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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)

080312\* Waste ink containing dangerous substances  
20 01 27\* Paint, inks, adhesives and resins containing dangerous substances

## SECTION 14: Transportation information

GR-2001-2568-4

**ADR/RID:** UN1263, PAINT RELATED MATERIAL, LIMITED QUANTITY, 3., II , (E), ADR Classification Code: F1.

**IMDG-CODE:** UN1263, PAINT RELATED MATERIAL, 3, II , IMDG-Code segregation code: NONE, LIMITED QUANTITY, EMS: FE,SE.

**ICAO/IATA:** UN1263, PAINT RELATED MATERIAL, 3., II .

## 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>
Titanium dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Xylene	1330-20-7	Gr. 3: Not classifiable	International Agency for Research on Cancer
Formaldehyde	50-00-0	Carc. 1B	Regulation (EC) No. 1272/2008, Table 3.1
Ethylbenzene	100-41-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Formaldehyde	50-00-0	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
4-Methylpentan-2-one	108-10-1	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Toluene	108-88-3	Gr. 3: Not classifiable	International Agency for Research on Cancer
2-Butoxyethanol	111-76-2	Gr. 3: Not classifiable	International Agency for Research on Cancer

#### Global inventory status

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

### 15.2. Chemical Safety Assessment

Not applicable

## SECTION 16: Other information

### List of relevant H statements



EUH066	Repeated exposure may cause skin dryness or cracking.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
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:**

- Section 01: SAP Material Numbers information was added.
- CLP: Ingredient table information was modified.
- Section 3: Composition/ Information of ingredients table information was added.
- Section 3: Composition/ Information of ingredients table information was deleted.
- Section 9: Property description for optional properties information was modified.
- Lactation Table information was modified.
- Section 11: Reproductive Toxicity Table information was modified.
- Section 11: Respiratory Sensitization 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: Component ecotoxicity information information was modified.
- Section 12: Persistence and Degradability information information was modified.
- Section 12: Biocumulative potential information information was modified.
- Section 13: Standard Phrase Category Waste GHS information was modified.
- Section 15: Carcinogenicity information information was modified.

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

**3M United Kingdom MSDSs are available at [www.3M.com/uk](http://www.3M.com/uk)**