



## 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 Ceramic Surfacers FG512 (Part B)

#### Product Identification Numbers

GR-2001-0928-2      GR-2001-0932-4      GR-2001-3179-9

#### 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 substance or mixture

**Address:** 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.

**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:

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

Acute Toxicity, Category 4 - Acute Tox. 4; H312

Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318

Skin Corrosion/Irritation, Category 1B - Skin Corr. 1B; H314

Skin Sensitization, Category 1A - Skin Sens. 1A; H317

Reproductive Toxicity, Category 2 - Repr. 2; H361

Hazardous to the Aquatic Environment (Chronic), Category 3 - Aquatic Chronic 3; H412

For full text of H phrases, see Section 16.

**Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive**

**Indication of danger**

Toxic for reproduction; Repr. Cat. 3; R62  
Harmful; Xn; R21/22  
Corrosive; C; R34  
Sensitizing; R43  
Dangerous for the environment; R52/53

For full text of R phrases, see Section 16.

**2.2. Label elements**

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

**SIGNAL WORD**

DANGER!

**Symbols:**

GHS05 (Corrosion) | GHS07 (Exclamation mark) | GHS08 (Health Hazard) |

**Pictograms**



Ingredient	CAS Nbr	% by Wt
Benzyl Alcohol	100-51-6	20 - 30
3-aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2	15 - 20
Diethylenetriamine	111-40-0	10 - 15
p-Tert-Butylphenol	98-54-4	5 - 10
2-Piperazin-1-ylethylamine	140-31-8	5 - 10
4,4'-Isopropylidenediphenol	80-05-7	5 - 10

**HAZARD STATEMENTS:**

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H361f	Suspected of damaging fertility.
H412	Harmful to aquatic life with long lasting effects.

**PRECAUTIONARY STATEMENTS**

**Prevention:**

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280D	Wear protective gloves, protective clothing, and eye/face protection.

**Response:**

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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.

## 3M Scotchkote Epoxy Ceramic Surfer FG512 (Part B)

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.

24% of the mixture consists of components of unknown acute oral toxicity.  
47% of the mixture consists of components of unknown acute dermal toxicity.

Contains 24% of components with unknown hazards to the aquatic environment.

### Notes on labelling

For volumes < 125 mL, remove H302-312; P501.

### Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

#### Symbol(s)



Corrosive

#### Contains:

4,4'-Isopropylidenediphenol; Benzyl Alcohol; Diethylenetriamine; 3-aminomethyl-3,5,5-trimethylcyclohexylamine; 2-Piperazin-1-ylethylamine

#### Risk phrases

R21/22 Harmful in contact with skin and if swallowed.  
R34 Causes burns.  
R43 May cause sensitisation by skin contact.  
R62 Possible risk of impaired fertility.  
R52/53 Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

#### Safety phrases

S23A Do not breathe vapour.  
S36/37/39B Wear suitable protective clothing, gloves, and eye and face protection.  
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S28C After contact with skin, wash immediately with plenty of water for 15 minutes.  
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

### Notes on labelling

For containers <125mL, label with C; R34-21/22-43-62-52/53 and S23A-36/37/39B-26-28C-45.

### 2.3. Other hazards

Persons previously sensitised to amines may develop a cross-sensitisation reaction to certain other amines. May cause chemical gastrointestinal burns.

## SECTION 3: Composition/information on ingredients

**3M Scotchkote Epoxy Ceramic Surfacer FG512 (Part B)**

<b>Ingredient</b>	<b>CAS Nbr</b>	<b>EU Inventory</b>	<b>% by Wt</b>	<b>Classification</b>
Formaldehyde Polymer	Trade Secret		20 - 30	
Benzyl Alcohol	100-51-6	EINECS 202-859-9	20 - 30	Xn:R20-22 (EU)  Acute Tox. 4, H332; Acute Tox. 4, H302 (CLP)
3-aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2	EINECS 220-666-8	15 - 20	C:R34; Xn:R21-22; R43; R52/53 (EU)  Acute Tox. 4, H312; Acute Tox. 4, H302; Skin Corr. 1B, H314; Skin Sens. 1A, H317; Aquatic Chronic 3, H412 (CLP)
Diethylenetriamine	111-40-0	EINECS 203-865-4	10 - 15	C:R34; Xn:R21-22; R43 (EU) R52/53 (Self Classified)  Acute Tox. 4, H312; Acute Tox. 4, H302; Skin Corr. 1B, H314; Skin Sens. 1, H317 (CLP)
p-Tert-Butylphenol	98-54-4	EINECS 202-679-0	5 - 10	Xi:R37-38-41; R52 (Self Classified)  Skin Irrit. 2, H315; Eye Dam. 1, H318; STOT SE 3, H335; Aquatic Chronic 3, H412 (Self Classified)
2-Piperazin-1-ylethylamine	140-31-8	EINECS 205-411-0	5 - 10	C:R34; Xn:R21-22; R43; R52/53 (EU)  Acute Tox. 3, H311; Acute Tox. 4, H302; Skin Corr. 1B, H314; Skin Sens. 1B, H317; Aquatic Chronic 3, H412 (CLP)
4,4'-Isopropylidenediphenol	80-05-7	EINECS 201-245-8	5 - 10	Repr.Cat.3:R62; Xi:R37-41; R43; R52 (EU)  Eye Dam. 1, H318; Skin Sens. 1, H317; Repr. 2, H361f; STOT SE 3, H335 (CLP) Aquatic Chronic 2, H411 (Self Classified)

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

Please refer to section 15 for the any applicable Notas that have been applied to the above components

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 flush with large amounts of water for at least 15 minutes. Remove contaminated clothing. Get immediate

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medical attention. Wash clothing before reuse.

#### 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

Rinse mouth. 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 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

<u>Substance</u>	<u>Condition</u>
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.
Oxides of nitrogen.	During combustion.

#### 5.3. Advice for fire-fighters

No unusual fire or explosion hazards are anticipated.

## 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. 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. Place in a container approved for transportation by appropriate authorities, but do not seal the container for 48 hours to avoid pressure build-up. 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. Dispose of collected material as soon as possible.

#### 6.4. Reference to other sections

## 3M Scotchkote Epoxy Ceramic Surfacer FG512 (Part B)

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. 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.) Use personal protective equipment (eg. gloves, respirators...) as required.

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

Store in a well-ventilated place. Keep container tightly closed to prevent contamination with water or air. If contamination is suspected, do not reseal container. Store away from heat. Keep from freezing. Store away from acids. Store away from strong bases. Store away from oxidising agents. Store away from areas where product may come into contact with food or pharmaceuticals.

### 7.3. Specific end use(s)

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

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Diethylenetriamine	111-40-0	Health and Safety Comm. (UK)	TWA:4.3 mg/m <sup>3</sup> (1 ppm)	Skin Notation
4,4'-Isopropylidenediphenol	80-05-7	Health and Safety Comm. (UK)	TWA(as inhalable dust):10 mg/m <sup>3</sup>	

Health and Safety Comm. (UK) : 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:

Full face shield.

Indirect vented goggles.

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#### Skin/hand protection

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

Gloves made from the following material(s) are recommended: Butyl rubber.  
Fluoroelastomer

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 – Butyl rubber  
Disposable rubber-coated coveralls.

#### 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:

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:	Liquid.
Appearance/Odour	Ammoniacal odour; Amber colour
Odour threshold	<i>No data available.</i>
pH	> 8 [ <i>Details: Alkaline</i> ]
Boiling point/boiling range	>=200 °C
Melting point	<i>Not applicable.</i>
Flammability (solid, gas)	Not applicable.
Explosive properties	Not classified
Oxidising properties	Not classified
Flash point	100 °C [ <i>Test Method: Closed Cup</i> ]
Autoignition temperature	>=400 °C
Flammable Limits(LEL)	<i>No data available.</i>
Flammable Limits(UEL)	<i>No data available.</i>
Vapour pressure	<=1,333.2 Pa [ <i>@ 21 °C</i> ]
Relative density	1.010 [ <i>Ref Std: WATER=1</i> ]
Water solubility	Negligible
Solubility- non-water	<i>No data available.</i>
Partition coefficient: n-octanol/water	<i>No data available.</i>
Evaporation rate	<i>No data available.</i>
Vapour density	<i>No data available.</i>
Decomposition temperature	<i>No data available.</i>
Viscosity	<i>No data available.</i>
Density	1.01 g/ml

### 9.2. Other information

## 3M Scotchkote Epoxy Ceramic Surfacers FG512 (Part B)

<b>Volatile organic compounds (VOC)</b>	0 g/l [ <i>Test Method</i> :Estimated] [ <i>Details</i> :EU Definition (Part A and B mix)]
<b>Percent volatile</b>	0 %

## 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 is generated during cure. Do not cure a mass larger than 50 grams in a confined space to prevent a premature exothermic reaction with production of intense heat and smoke.

### 10.5 Incompatible materials

Amines.

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.

### 10.6 Hazardous decomposition products

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

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

### 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

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Allergic respiratory reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest. May cause target organ effects after inhalation.



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#### Skin contact

May be harmful in contact with skin.

Corrosive (skin burns): Signs/symptoms may include localised redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching. Photosensitisation: Signs/symptoms may include a sunburn-like reaction such as blistering, redness, swelling, and itching from minor exposure to sunlight. May cause target organ effects after skin contact.

#### Eye contact

Corrosive (eye burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

#### Ingestion

Harmful if swallowed.

Gastrointestinal corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain, nausea, vomiting, and diarrhea; blood in the faeces and/or vomitus may also be seen. May cause target organ effects after ingestion.

#### Target Organ Effects:

##### Single exposure may cause:

Dermal effects: Signs/symptoms may include changes in skin pigmentation and/or colouration. Central nervous system (CNS) depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

##### Reproductive/Developmental Toxicity:

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

##### Additional information:

Persons previously sensitised to amines may develop a cross-sensitisation reaction to certain other amines.

#### 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 ATE2,000 - 5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE300 - 2,000 mg/kg
Benzyl Alcohol	Inhalation-Dust/Mist (4 hours)	Rat	LC50 8.8 mg/l
Benzyl Alcohol	Ingestion	Rat	LD50 1,230 mg/kg
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Dermal	Rat	LD50 > 2,000 mg/kg
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Inhalation-Dust/Mist (4 hours)	Rat	LC50 estimated to be 1 - 5 mg/l
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Ingestion	Rat	LD50 1,030 mg/kg
Diethylenetriamine	Dermal	Rabbit	LD50 1,045 mg/kg
Diethylenetriamine	Ingestion	Rat	LD50 819 mg/kg
p-Tert-Butylphenol	Dermal	Rabbit	LD50 2,318 mg/kg
p-Tert-Butylphenol	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.6 mg/l
p-Tert-Butylphenol	Ingestion	Rat	LD50 4,000 mg/kg
4,4'-Isopropylidenediphenol	Dermal	Rabbit	LD50 > 2,000 mg/kg
4,4'-Isopropylidenediphenol	Ingestion	Rat	LD50 3,200 mg/kg
2-Piperazin-1-ylethylamine	Dermal	Rabbit	LD50 865 mg/kg
2-Piperazin-1-ylethylamine	Ingestion	Rat	LD50 1,470 mg/kg

ATE = acute toxicity estimate

**3M Scotchkote Epoxy Ceramic Surfacers FG512 (Part B)****Skin Corrosion/Irritation**

Name	Species	Value
Benzyl Alcohol	Multiple animal species	Mild irritant
3-aminomethyl-3,5,5-trimethylcyclohexylamine	official classification	Corrosive
Diethylenetriamine	Rabbit	Corrosive
p-Tert-Butylphenol	Rabbit	Irritant
4,4'-Isopropylidenediphenol	Rabbit	No significant irritation
2-Piperazin-1-ylethylamine	Rabbit	Corrosive

**Serious Eye Damage/Irritation**

Name	Species	Value
Benzyl Alcohol	Rabbit	Severe irritant
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Rabbit	Corrosive
Diethylenetriamine	Rabbit	Corrosive
p-Tert-Butylphenol	Rabbit	Corrosive
4,4'-Isopropylidenediphenol	Rabbit	Corrosive
2-Piperazin-1-ylethylamine	Rabbit	Corrosive

**Skin Sensitisation**

Name	Species	Value
Benzyl Alcohol	Human and animal	Some positive data exist, but the data are not sufficient for classification
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Guinea pig	Sensitising
Diethylenetriamine	Guinea pig	Sensitising
p-Tert-Butylphenol	Human and animal	Some positive data exist, but the data are not sufficient for classification
4,4'-Isopropylidenediphenol	official classification	Sensitising
2-Piperazin-1-ylethylamine	Guinea pig	Sensitising

**Photosensitisation**

Name	Species	Value
4,4'-Isopropylidenediphenol	Human and animal	Sensitising

**Respiratory Sensitisation**

Name	Species	Value
Diethylenetriamine	Human	Sensitising

**Germ Cell Mutagenicity**

Name	Route	Value
Benzyl Alcohol	In vivo	Not mutagenic
Benzyl Alcohol	In Vitro	Some positive data exist, but the data are not sufficient for classification
3-aminomethyl-3,5,5-trimethylcyclohexylamine	In Vitro	Not mutagenic
3-aminomethyl-3,5,5-trimethylcyclohexylamine	In vivo	Not mutagenic
Diethylenetriamine	In Vitro	Not mutagenic
p-Tert-Butylphenol	In Vitro	Not mutagenic
4,4'-Isopropylidenediphenol	In vivo	Not mutagenic
4,4'-Isopropylidenediphenol	In Vitro	Some positive data exist, but the data are not sufficient for classification
2-Piperazin-1-ylethylamine	In vivo	Not mutagenic
2-Piperazin-1-ylethylamine	In Vitro	Some positive data exist, but the data are not

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sufficient for classification

**Carcinogenicity**

Name	Route	Species	Value
Benzyl Alcohol	Ingestion	Multiple animal species	Not carcinogenic
Diethylenetriamine	Dermal	Multiple animal species	Not carcinogenic
p-Tert-Butylphenol	Ingestion	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
4,4'-Isopropylidenediphenol	Ingestion	Multiple animal species	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
Benzyl Alcohol	Ingestion	Not toxic to development	Mouse	NOAEL 550 mg/kg/day	during organogenesis
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Ingestion	Not toxic to female reproduction	Rat	NOAEL 160 mg/kg/day	90 days
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Ingestion	Not toxic to male reproduction	Rat	NOAEL 160 mg/kg/day	90 days
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Ingestion	Not toxic to development	Rat	NOAEL 250 mg/kg/day	during gestation
Diethylenetriamine	Ingestion	Not toxic to male reproduction	Rat	NOAEL 300 mg/kg/day	28 days
Diethylenetriamine	Ingestion	Not toxic to development	Rat	NOAEL 300 mg/kg/day	prematuring & during gestation
Diethylenetriamine	Ingestion	Some positive female reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 30 mg/kg/day	prematuring & during gestation
p-Tert-Butylphenol	Ingestion	Not toxic to male reproduction	Rat	NOAEL 600 mg/kg/day	2 generation
p-Tert-Butylphenol	Ingestion	Some positive female reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 600 mg/kg/day	2 generation
p-Tert-Butylphenol	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 70 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol	Inhalation	Not toxic to female reproduction	Rat	NOAEL 0.15 mg/l	13 weeks
4,4'-Isopropylidenediphenol	Inhalation	Not toxic to male reproduction	Rat	NOAEL 0.15 mg/l	13 weeks
4,4'-Isopropylidenediphenol	Ingestion	Some positive female reproductive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL 50 mg/kg/day	
4,4'-Isopropylidenediphenol	Ingestion	Some positive male reproductive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL 50 mg/kg/day	
4,4'-Isopropylidenediphenol	Ingestion	Toxic to development	Multiple animal species	NOAEL 50 mg/kg/day	
2-Piperazin-1-ylethylamine	Ingestion	Not toxic to female reproduction	Rat	NOAEL 598 mg/kg/day	prematuring & during gestation
2-Piperazin-1-ylethylamine	Ingestion	Not toxic to male reproduction	Rat	NOAEL 409 mg/kg/day	32 days
2-Piperazin-1-ylethylamine	Ingestion	Not toxic to development	Rat	NOAEL 899 mg/kg/day	prematuring & during gestation

**3M Scotchkote Epoxy Ceramic Surfacers FG512 (Part B)**
**Target Organ(s)**
**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Benzyl Alcohol	Inhalation	central nervous system depression	May cause drowsiness or dizziness		NOAEL Not available	
Benzyl Alcohol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Benzyl Alcohol	Ingestion	central nervous system depression	May cause drowsiness or dizziness		NOAEL Not available	
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Inhalation	respiratory irritation	May cause respiratory irritation	Rat	LOAEL 0.002 mg/l	2 weeks
Diethylenetriamine	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
p-Tert-Butylphenol	Inhalation	respiratory irritation	May cause respiratory irritation	Rat	LOAEL 5.6 mg/l	4 hours
4,4'-Isopropylidenediphenol	Inhalation	respiratory irritation	May cause respiratory irritation	Multiple animal species	LOAEL 0.152 mg/l	15 minutes
2-Piperazin-1-ylethylamine	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Benzyl Alcohol	Ingestion	endocrine system   muscles   kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 400 mg/kg/day	13 weeks
Benzyl Alcohol	Ingestion	nervous system   respiratory system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 645 mg/kg/day	8 days
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Ingestion	hematopoietic system   liver   kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 160 mg/kg/day	13 weeks
Diethylenetriamine	Ingestion	endocrine system   liver   kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,210 mg/kg/day	90 days
p-Tert-Butylphenol	Ingestion	endocrine system   liver   kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 600 mg/kg/day	2 generation
p-Tert-Butylphenol	Ingestion	blood	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 200 mg/kg	6 weeks
4,4'-Isopropylidenediphenol	Inhalation	liver   kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.15 mg/l	13 weeks
4,4'-Isopropylidenediphenol	Inhalation	hematopoietic system	All data are negative	Rat	NOAEL 0.15 mg/l	13 weeks
4,4'-Isopropylidenediphenol	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 50 mg/kg/day	3 generation
4,4'-Isopropylidenediphenol	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 370 mg/kg/day	13 weeks
4,4'-Isopropylidenediphenol	Ingestion	endocrine system   hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 500 mg/kg/day	3 generation
4,4'-Isopropylidenediphenol	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 185 mg/kg/day	90 days
4,4'-	Ingestion	heart   bone, teeth,	Some positive data exist, but the	Mouse	NOAEL	13 weeks

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Isopropylidenediphenol		nails, and/or hair	data are not sufficient for classification		2,400 mg/kg/day	
2-Piperazin-1-ylethylamine	Ingestion	heart   endocrine system   hematopoietic system   liver   nervous system   kidney and/or bladder	All data are negative	Rat	NOAEL 598 mg/kg/day	28 days

**Aspiration Hazard**

Name	Value

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 be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

**12.1. Toxicity**

No product test data available.

Material	CAS Nbr	Organism	Type	Exposure	Test endpoint	Test result
Formaldehyde Polymer	Trade Secret		Data not available or insufficient for classification			
3-aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2	Green algae	Experimental	72 hours	EC50	50 mg/l
3-aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2	Water flea	Experimental	21 days	NOEC	3 mg/l
3-aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2	Golden Orfe	Experimental	96 hours	LC50	110 mg/l
3-aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2	Water flea	Experimental	48 hours	EC50	17.4 mg/l
p-Tert-Butylphenol	98-54-4	Water flea	Laboratory	21 days	NOEC	0.73 mg/l
p-Tert-	98-54-4	Water flea	Laboratory	48 hours	EC50	3.4 mg/l

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Butylphenol						
p-Tert-Butylphenol	98-54-4	Fathead minnow	Laboratory	96 hours	LC50	5.14 mg/l
p-Tert-Butylphenol	98-54-4	Green algae	Laboratory	72 hours	EC50	22.7 mg/l
2-Piperazin-1-ylethylamine	140-31-8	Water flea	Experimental	48 hours	EC50	32 mg/l
2-Piperazin-1-ylethylamine	140-31-8	Rainbow trout	Experimental	96 hours	LC50	>100 mg/l
2-Piperazin-1-ylethylamine	140-31-8	Green algae	Experimental	72 hours	EC50	>1,000 mg/l
2-Piperazin-1-ylethylamine	140-31-8	Green algae	Experimental	72 hours	NOEC	31 mg/l
4,4'-Isopropylidene diphenol	80-05-7	Common Carp	Experimental	49 days	NOEC	0.1 mg/l
4,4'-Isopropylidene diphenol	80-05-7	Mysid Shrimp	Experimental	96 hours	LC50	1.1 mg/l
4,4'-Isopropylidene diphenol	80-05-7	Rainbow trout	Experimental	96 hours	LC50	4 mg/l
4,4'-Isopropylidene diphenol	80-05-7	Green Algae	Experimental	96 hours	EC50	2.5 mg/l
Benzyl Alcohol	100-51-6	Water flea	Experimental	48 hours	EC50	360 mg/l
Benzyl Alcohol	100-51-6	Algae	Experimental	96 hours	EC50	640 mg/l
Benzyl Alcohol	100-51-6	Fathead minnow	Experimental	96 hours	LC50	460 mg/l
Diethylenetriamine	111-40-0	Water flea	Experimental	48 hours	EC50	16 mg/l
Diethylenetriamine	111-40-0	Three-spined stickleback	Experimental	28 days	NOEC	>10 mg/l
Diethylenetriamine	111-40-0	Green algae	Experimental	72 hours	NOEC	10.2 mg/l
Diethylenetriamine	111-40-0	Golden Orfe	Experimental	96 hours	LC50	248 mg/l
Diethylenetriamine	111-40-0	Green Algae	Experimental	96 hours	EC50	345.6 mg/l
Diethylenetriamine	111-40-0	Water flea	Experimental	21 days	NOEC	5.6 mg/l

**12.2. Persistence and degradability**

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Formaldehyde Polymer	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
3-aminomethyl-3,5,5-	2855-13-2	Experimental Biodegradation	28 days	BOD	0 % weight	OECD 301C - MITI test (I)

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trimethylcyclohexylamine						
p-Tert-Butylphenol	98-54-4	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	98 % weight	Other methods
2-Piperazin-1-ylethylamine	140-31-8	Experimental Biodegradation	28 days	BOD	0 % weight	OECD 301C - MITI test (I)
4,4'-Isopropylidene diphenol	80-05-7	Experimental Biodegradation	28 days	BOD	76 % weight	OECD 301F - Manometric respirometry
Benzyl Alcohol	100-51-6	Experimental Biodegradation	14 days	BOD	94 % weight	OECD 301C - MITI test (I)
Diethylenetriamine	111-40-0	Experimental Biodegradation	14 days	BOD	0 % weight	OECD 301C - MITI test (I)

**12.3 : Bioaccumulative potential**

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Formaldehyde Polymer	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
4,4'-Isopropylidene diphenol	80-05-7	Experimental BCF-Carp	42 days	Bioaccumulation factor	67.7	Other methods
3-aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2	Experimental BCF-Carp	42 days	Bioaccumulation factor	<3.4	Other methods
p-Tert-Butylphenol	98-54-4	Experimental Bioaccumulation		Log Kow	3.31	Other methods
Diethylenetriamine	111-40-0	Experimental BCF-Carp	42 days	Bioaccumulation factor	6.3	OECD 305E - Bioaccumulation flow-through fish test
2-Piperazin-1-ylethylamine	140-31-8	Experimental Bioconcentration		Log Kow	0.3	Other methods
Benzyl Alcohol	100-51-6	Experimental Bioconcentration		Log Kow	1.10	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**

No information available.

**SECTION 13: Disposal considerations**

## 3M Scotchkote Epoxy Ceramic Surfer FG512 (Part B)

### 13.1 Waste treatment methods

See Section 11.1 Information on toxicological effects

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty 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 01 11\* Waste paint and varnish containing organic solvents or other dangerous substances

## SECTION 14: Transportation information

GR-2001-0928-2, GR-2001-3179-9

**ADR/RID:** UN2735, POLYAMINES, LIQUID, CORROSIVE, N.O.S., LIMITED QUANTITY, (ISOPHORONE DIAMINE AND DIETHYLENETRIAMINE), 8, III, (E), ADR Classification Code: C7.

**IMDG-CODE:** UN2735, POLYAMINES, LIQUID, CORROSIVE, N.O.S., (ISOPHORONE DIAMINE AND DIETHYLENETRIAMINE), 8., III, IMDG-Code segregation code: 18- ALKALIS, LIMITED QUANTITY, EMS: FA, SB.

**ICAO/IATA:** UN2735, POLYAMINES, LIQUID, CORROSIVE, N.O.S., (ISOPHORONE DIAMINE AND DIETHYLENETRIAMINE), 8., III.

GR-2001-0932-4

**ADR/RID:** UN2735, POLYAMINES, LIQUID, CORROSIVE, N.O.S., LIMITED QUANTITY, (ISOPHORONE DIAMINE AND DIETHYLENETRIAMINE), 8, III, (E), ADR Classification Code: C7.

**IMDG-CODE:** UN2735, POLYAMINES, LIQUID, CORROSIVE, N.O.S., (ISOPHORONE DIAMINE AND DIETHYLENETRIAMINE), 8., III, IMDG-Code segregation code: 18- ALKALIS, LIMITED QUANTITY, EMS: FA, SB.

**ICAO/IATA:** UN2735, POLYAMINES, LIQUID, CORROSIVE, N.O.S., (ISOPHORONE DIAMINE AND DIETHYLENETRIAMINE), 8., III.

## SECTION 15: Regulatory information

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

#### Global inventory status

Contact 3M for more information. The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional 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 chemical notification requirements of TSCA.

### 15.2. Chemical Safety Assessment

Not applicable



## **SECTION 16: Other information**

### **List of relevant H statements**

H302	Harmful if swallowed.
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.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361f	Suspected of damaging fertility.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

### **List of relevant R-phrases**

R20	Harmful by inhalation.
R21	Harmful in contact with skin.
R21/22	Harmful in contact with skin and if swallowed.
R22	Harmful if swallowed.
R34	Causes burns.
R37	Irritating to respiratory system.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R43	May cause sensitisation by skin contact.
R52	Harmful to aquatic organisms.
R52/53	Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
R62	Possible risk of impaired fertility.

### **Revision information:**

#### Revision Changes:

Section 8: Skin protection - recommended gloves information information was modified.

Section 8: Personal Protection - Skin/body information information was modified.

Section 8: Skin protection - protective clothing information information was modified.

Section 12: Component ecotoxicity information information was modified.

Section 12: Persistence and Degradability information information was modified.

Section 10: Conditions to avoid physical property information was modified.

Section 12: Bioaccumulative potential information information was modified.

Section 11: Acute Toxicity table information was modified.

Section 11: Health Effects - Skin information information was modified.

Section 6: Accidental release clean-up information information was modified.

Section 8: Personal Protection - Eye information information was modified.

Section 8: 8.1.1 Biological limit values table heading information was added.

Section 8: BLV information was added.

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

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

