

Safety Data Sheet

Copyright, 2014, 3M Company All rights reserved. Copying and/or downloading of this information for the purpose of properly utilising 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

 Document group:
 26-5368-1
 Version number:
 5.00

 Revision date:
 04/09/2014
 Supersedes date:
 12/03/2012

Transportation version number: 2.00 (28/04/2012)

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 162PWX (For Blue) (Part A)

Product Identification Numbers

GR-2000-9977-2 GR-2001-0386-3 GR-2001-1815-0

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.

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:

Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319 Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315

Skiii Collosion/Illitation, Category 2 - Skiii Illit. 2, 113

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.

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive Indication of danger

Irritant; Xi; R36/38 Sensitizing; R43

Dangerous for the environment; N; R51/53

For full text of R phrases, see Section 16.

2.2. Label elements

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

WARNING!

Symbols:

GHS07 (Exclamation mark) |GHS09 (Environment) |

Pictograms





Ingredient 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-	CAS Nbr 25068-38-6	% by Wt 60 - 70
2,3-epoxypropane		
Oxirane, mono[(C10-16-alkyloxy)methyl] derivatives	68081-84-5	1 - 5

HAZARD STATEMENTS:

H319 Causes serious eye irritation. H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P280E Wear protective gloves.

P273 Avoid release to the environment.

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.

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.

Contains 2% of components with unknown hazards to the aquatic environment.

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

Symbol(s)





Irritant

Dangerous for the environment

Contains:

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane; Oxirane, mono[(C10-16-alkyloxy)methyl] derivatives

Risk phrases

R36/38 Irritating to eyes and skin.

R43 May cause sensitisation by skin contact.

R51/53 Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Safety phrases

S23C Do not breathe vapour or spray.
S51 Use only in well ventilated areas.

S24 Avoid contact with skin. S37 Wear suitable gloves.

S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

Special provisions concerning the labelling of certain substances

Contains epoxy resins. See information supplied by manufacturer.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EU Inventory	% by Wt	Classification
4,4'-Isopropylidenediphenol, oligomeric	25068-38-6	NLP 500-033-	60 - 70	Xi:R36-38; N:R51/53; R43 (EU)
reaction products with 1-chloro-2,3-		5		
epoxypropane				Skin Irrit. 2, H315; Eye Irrit. 2,
				H319; Skin Sens. 1, H317;
				Aquatic Chronic 2, H411 (CLP)
Calcium Carbonate	471-34-1	EINECS 207- 439-9	30 - 40	
Oxirane, mono[(C10-16-alkyloxy)methyl] derivatives	68081-84-5	EINECS 268- 358-2	1 - 5	Xi:R36-38; R43 (Vendor)
				Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317 (Vendor)
Synthetic amorphous silica, fumed, crystalline free	112945-52-5		1 - 5	
Titanium dioxide	13463-67-7	EINECS 236- 675-5	1 - 5	
Quartz	14808-60-7	EINECS 238- 878-4	< 0.5	Xn:R48/20 (Vendor)
				STOT RE 1, H372 (Self
				Classified)

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

Page: 3 of 17

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

Eve contact

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

If swallowed

Rinse mouth. If you feel unwell, get medical attention.

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

See Section 11.1 Information on toxicological effects

4.3. Indication of any immediate medical attention and special treatment required

Not applicable

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

Substance

Carbon monoxide. Carbon dioxide

Condition

During combustion. During combustion.

5.3. Advice for fire-fighters

No special protective actions for fire-fighters 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 closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible.

6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

Keep container tightly closed to prevent contamination with water or air. If contamination is suspected, do not reseal container. Store away from acids. Store away from strong bases. Store away from oxidising agents. Store away from amines.

7.3. Specific end use(s)

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient Silicon dioxide	CAS Nbr 112945-52- 5	Agency Health and Safety Comm. (UK)	Limit type TWA(as inhalable dust):6 mg/m3;TWA(as respirable dust):2.4 mg/m3	Additional comments
Titanium dioxide	13463-67-7	Health and Safety Comm. (UK)	TWA(Inhalable):10 mg/m3;TWA(respirable):4 mg/m³	
Quartz	14808-60-7	Health and Safety Comm. (UK)	TWA(respirable):0.1 mg/m3	
Limestone	471-34-1	Health and Safety Comm. (UK)	TWA(as inhalable dust):10 mg/m3;TWA(as respirable dust):4 mg/m3;TWA(Inhalable):10 mg/m3;TWA(respirable):4 mg/m3	

 $Health\ and\ Safety\ Comm.\ (UK): UK\ Health\ and\ Safety\ Commission$

Page: 5 of 17

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

Curing enclosures must be exhausted to outdoors or to a suitable emission control device. 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.

Skin/hand protection

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

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

Polymer laminate

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 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 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 White colour; Faint epoxy odour.

Odour threshold

PH

No data available.

No data available.

No data available.

No data available.

Boiling point/boiling range >= 200 °C **Melting point**Not applicable.

Page: 6 of 17

Flammability (solid, gas)Not applicable.Explosive propertiesNot classifiedOxidising propertiesNot classified

Flash point >= 100 °C [Test Method:Closed Cup]

Autoignition temperature>= 400 °CFlammable Limits(LEL)No data available.Flammable Limits(UEL)No data available.Vapour pressure1.3 Pa [@ 20 °C]

Relative density 1.39 - 1.47 [Ref Std:WATER=1]

Water solubility 0 %

Solubility- non-water

Partition coefficient: n-octanol/water

Evaporation rate

Vapour density

Decomposition temperature

Viscosity

No data available.
1.39 - 1.47 g/ml

9.2. Other information

Volatile organic compounds (VOC) 0 g/l [Details: EPA Test Method 24]

Percent volatile 0.07 %

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

Sparks and/or flames.

10.5 Incompatible materials

Accelerators

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

Substance Condition

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

Pr. . . 7 . C

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

No health effects are expected.

Skin contact

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

Eye contact

Moderate eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

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	Ingestion		No data available; calculated ATE >5,000 mg/kg
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-	Dermal	Rat	LD50 > 1,600 mg/kg
chloro-2,3-epoxypropane			
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-	Ingestion	Rat	LD50 > 1,000 mg/kg
chloro-2,3-epoxypropane			
Calcium Carbonate	Dermal	Rat	LD50 > 2,000 mg/kg
Calcium Carbonate	Inhalation-	Rat	LC50 3.0 mg/l
	Dust/Mist		
	(4 hours)		
Calcium Carbonate	Ingestion	Rat	LD50 6,450 mg/kg
Oxirane, mono[(C10-16-alkyloxy)methyl] derivatives	Dermal		LD50 estimated to be > 5,000 mg/kg
Oxirane, mono[(C10-16-alkyloxy)methyl] derivatives	Ingestion	Rat	LD50 > 5,000 mg/kg
Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium dioxide	Inhalation-	Rat	LC50 > 6.82 mg/l
	Dust/Mist		
	(4 hours)		
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Synthetic amorphous silica, fumed, crystalline free	Dermal	Rabbit	LD50 > 5,000 mg/kg
Synthetic amorphous silica, fumed, crystalline free	Inhalation-	Rat	LC50 > 0.691 mg/l
	Dust/Mist		
	(4 hours)		
Synthetic amorphous silica, fumed, crystalline free	Ingestion	Rat	LD50 > 5,110 mg/kg
Quartz	Dermal		LD50 estimated to be > 5,000 mg/kg
Quartz	Ingestion		LD50 estimated to be > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-	Rabbit	Mild irritant
epoxypropane		
Calcium Carbonate	Rabbit	No significant irritation
Titanium dioxide	Rabbit	No significant irritation
Synthetic amorphous silica, fumed, crystalline free	Rabbit	No significant irritation
Quartz		No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-	Rabbit	Moderate irritant
epoxypropane		
Calcium Carbonate	Rabbit	No significant irritation
Titanium dioxide	Rabbit	No significant irritation
Synthetic amorphous silica, fumed, crystalline free	Rabbit	No significant irritation

Skin Sensitisation

Name	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-	Human	Sensitising
epoxypropane	and	
	animal	
Titanium dioxide	Human	Not sensitizing
	and	
	animal	
Synthetic amorphous silica, fumed, crystalline free	Human	Not sensitizing
	and	
	animal	

Respiratory Sensitisation

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

Germ Cell Mutagenicity

Name	Route	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-	In vivo	Not mutagenic
epoxypropane		
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-	In Vitro	Some positive data exist, but the data are not
epoxypropane		sufficient for classification
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	In vivo	Not mutagenic
Synthetic amorphous silica, fumed, crystalline free	In Vitro	Not mutagenic
Quartz	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
Quartz	In vivo	Some positive data exist, but the data are not
		sufficient for classification

Carcinogenicity

Name	Route	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-	Dermal	Mouse	Some positive data exist, but the data are not
chloro-2,3-epoxypropane			sufficient for classification
Titanium dioxide	Ingestion	Multiple	Not carcinogenic
		animal	
		species	
Titanium dioxide	Inhalation	Rat	Carcinogenic.
Synthetic amorphous silica, fumed, crystalline free	Not	Mouse	Some positive data exist, but the data are not
	specified.		sufficient for classification
Quartz	Inhalation	Human	Carcinogenic.
		and	
		animal	

Reproductive Toxicity

Reproductive and/or Developmental Effects

Page: 9 of 17

Name	Route	Value	Species	Test result	Exposure Duration
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not toxic to female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not toxic to male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal	Not toxic to development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not toxic to development	Rat	NOAEL 750 mg/kg/day	2 generation
Calcium Carbonate	Ingestion	Not toxic to development	Rat	NOAEL 625 mg/kg/day	premating & during gestation
Synthetic amorphous silica, fumed, crystalline free	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Synthetic amorphous silica, fumed, crystalline free	Ingestion	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Synthetic amorphous silica, fumed, crystalline free	Ingestion	Not toxic to development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Calcium Carbonate	Inhalation	respiratory system	All data are negative	Rat	NOAEL 0.812 mg/l	90 minutes

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	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,000 mg/kg/day	2 years
4,4'- Isopropylidenediphenol, oligomeric reaction products with 1-chloro- 2,3-epoxypropane	Dermal	nervous system	All data are negative	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	All data are negative	Rat	NOAEL 1,000 mg/kg/day	28 days
Calcium Carbonate	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.010 mg/l	2 years
Titanium dioxide	Inhalation	pulmonary fibrosis	All data are negative	Human	NOAEL Not available	occupational exposure
Synthetic amorphous silica, fumed, crystalline free	Inhalation	respiratory system silicosis	All data are negative	Human	NOAEL Not available	occupational exposure
Quartz	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

I	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 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
/	25068-38-6	Ricefish	Experimental	96 hours	LC50	1.41 mg/l
Isopropylidene						
diphenol,						
oligomeric						
reaction						
products with						
1-chloro-2,3-						
epoxypropane						
Calcium 4	471-34-1	Western	Experimental	96 hours	LC50	>100 mg/l
Carbonate		Mosquitofish				
Synthetic 1	112945-52-5	Green algae	Analogous	72 hours	EC50	440 mg/l
amorphous			Compound			
silica, fumed,						
crystalline free						
Synthetic 1	112945-52-5	Water flea	Analogous	48 hours	EC50	7,600 mg/l
amorphous			Compound			
silica, fumed,						
crystalline free						
Synthetic 1	112945-52-5	Zebra Fish	Analogous	96 hours	LC50	5,000 mg/l
amorphous			Compound			
silica, fumed,						
crystalline free						
	13463-67-7	Water flea	Experimental	48 hours	EC50	>100 mg/l
dioxide						
Titanium 1	13463-67-7	Sheepshead	Experimental	96 hours	LC50	>240 mg/l
dioxide		Minnow				
4,4'-	25068-38-6	Water flea	Experimental	21 days	NOEC	0.3 mg/l
Isopropylidene						
diphenol,						
oligomeric						
reaction						
products with						
1-chloro-2,3-						
epoxypropane						
Calcium 4	471-34-1	Rainbow trout	Experimental	21 days	NOEC	>100 mg/l
Carbonate						-

Page: 11 of 17

Titanium	13463-67-7	Fish	Experimental	30 days	NOEC	>100 mg/l
dioxide						
Titanium	13463-67-7	Water flea	Experimental	30 days	NOEC	3 mg/l
dioxide						
Oxirane,	68081-84-5		Data not			
mono[(C10-			available or			
16-			insufficient for			
alkyloxy)meth			classification			
yl] derivatives						
Quartz	14808-60-7		Data not			
			available or			
			insufficient for			
			classification			

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
4,4'-	25068-38-6	Laboratory		Hydrolytic	<2 days (t 1/2)	Other methods
Isopropylidene		Hydrolysis		half-life		
diphenol,						
oligomeric						
reaction						
products with						
1-chloro-2,3-						
epoxypropane						
Oxirane,	68081-84-5	Data not	N/A	N/A	N/A	N/A
mono[(C10-		available or				
16-		insufficient for				
alkyloxy)meth		classification				
yl] derivatives						
4,4'-	25068-38-6	Laboratory	28 days	BOD	0 % weight	OECD 301C - MITI
Isopropylidene		Biodegradation				test (I)
diphenol,						
oligomeric						
reaction						
products with						
1-chloro-2,3-						
epoxypropane						
Synthetic	112945-52-5	Data not	N/A	N/A	N/A	N/A
amorphous		available or				
silica, fumed,		insufficient for				
crystalline free		classification				
Quartz	14808-60-7	Data not	N/A	N/A	N/A	N/A
		available or				
		insufficient for				
		classification				
Calcium	471-34-1	Data not	N/A	N/A	N/A	N/A
Carbonate		available or				
		insufficient for				
		classification				
Titanium	13463-67-7	Data not	N/A	N/A	N/A	N/A
dioxide		available or				
		insufficient for				
		classification				

Page: 12 of 17

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Quartz	14808-60-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Calcium Carbonate	471-34-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
4,4'- Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	Laboratory BCF - Other	28 days	Bioaccumulati on factor	<42	Other methods
Synthetic amorphous silica, fumed, crystalline free	112945-52-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Titanium dioxide	13463-67-7	Experimental BCF-Carp	42 days	Bioaccumulati on factor	9.6	Other methods
Oxirane, mono[(C10- 16- alkyloxy)meth yl] derivatives	68081-84-5	Experimental Bioconcentrati on		Log Kow	3.77	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

13.1 Waste treatment methods

See Section 11.1 Information on toxicological effects

Incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. As a disposal alternative, utilize an acceptable permitted waste disposal 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

D. . . . 12 . C 17

and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

EU waste code (product as sold)

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

SECTION 14: Transportation information

GR-2000-9977-2, GR-2001-0386-3

ADR/RID: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER), 9, III, (E), ENVIRONMENTALLY HAZARDOUS,

ADR Classification Code: M6.

IMDG-CODE: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (4,4'-

ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER), 9., III, IMDG-Code segregation code: NONE,

Marine Pollutant, (4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER), EMS: FA,SF.

ICAO/IATA: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (4,4'-

ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER), 9., III, fish and tree marking may be required (> 5kg/l).

GR-2001-1815-0

ADR/RID: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. LIMITED QUANTITY, (4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER), 9., III, (E), ADR Classification Code: M6. **IMDG-CODE:** UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER), 9., III, IMDG-Code segregation code: NONE, LIMITED QUANTITY, Marine Pollutant, (4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER), EMS: FA.SF.

ICAO/IATA: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER), 9., III, fish and tree marking may be required (> 5kg/l).

SECTION 15: Regulatory information

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

Carcinogenicity

<u>Ingredient</u>	CAS Nbr	<u>Classification</u>	Regulation
Quartz	14808-60-7	Grp. 1: Carcinogenic to	International Agency
		humans	for Research on Cancer
Titanium dioxide	13463-67-7	Grp. 2B: Possible human	International Agency
		carc.	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 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

H315 Causes skin irritation. H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H372 Causes damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

List of relevant R-phrases

R36 Irritating to eyes.

R36/38 Irritating to eyes and skin.

R38 Irritating to skin.

R43 May cause sensitisation by skin contact.

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

R51/53 Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Revision information:

Revision Changes:

Section 8: Eye/face protection information information was modified.

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

Section 8: Respiratory protection - recommended respirators information information was modified.

Safety phrase information was modified.

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

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

Section 1: Product identification numbers heading information was modified.

Section 16: List of relevant R phrase information information was modified.

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

Section 9: Relative density information information was modified.

Section 2: Indication of danger information information was modified.

Section 12: Component ecotoxicity information information was modified.

Section 12: Persistence and Degradability information information was modified.

Section 12:Bioccumulative potential information information was modified.

Section 9: Flammability (solid, gas) information information was modified.

Copyright information was modified.

Section 9: Density information information was modified.

Section 9: Property description for optional properties information was modified.

Section 8: Occupational exposure limit table information was modified.

Telephone header information was modified.

Company Telephone information was modified.

Section 11: Acute Toxicity table information was modified.

Section 11: Carcinogenicity Table information was modified.

Section 11: Serious Eye Damage/Irritation Table information was modified.

Section 11: Germ Cell Mutagenicity Table information was modified.

Section 11: Skin Sensitization Table information was modified.

Section 11: Respiratory Sensitization Table information was modified.

Section 11: Reproductive Toxicity Table information was modified.

Section 11: Skin Corrosion/Irritation Table information was modified.

Section 11: Target Organs - Repeated Table information was modified.

Section 11: Target Organs - Single Table information was modified.

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

Section 5: Fire - Extinguishing media information information was modified.

Section 5: Fire - Advice for fire fighters information information was modified.

Section 6: Accidental release personal information information was modified.

Page: 15 of 17

- Section 6: Accidental release clean-up information information was modified.
- Section 7: Precautions safe handling information information was modified.
- Section 7: Conditions safe storage information was modified.
- Section 8: Personal Protection Eye information information was modified.
- Section 8: Personal Protection Skin/hand information information was modified.
- Section 8: Personal Protection Respiratory Information information was modified.
- Section 13: 13.1. Waste disposal note information was modified.
- Section 13: Standard Phrase Category Waste GHS information was modified.
- Section 8: Respiratory protection recommended respirators guide information was added.
- Label: Signal Word Header information was added.
- Label: Signal Word information was added.
- Label: CLP Classification Header information was added.
- Label: CLP Classification information was added.
- Label: CLP Classification information was added.
- Label: CLP Classification Header information was added.
- Label: CLP Percent Unknown information was added.
- Label: CLP Environmental Hazard Statements information was added.
- Label: Graphic information was added.
- Label: Graphic information was added.
- Label: Symbol information was added.
- Label: Symbol information was added.
- Label: CLP Precautionary Disposal information was added.
- Label: CLP Precautionary Disposal Header information was added.
- Label: CLP Precautionary Prevention information was added.
- Label: CLP Precautionary Prevention Header information was added.
- Label: CLP Precautionary Response information was added.
- Label: CLP Precautionary Response Header information was added.
- Label: Precautionary Statement Header information was added.
- CLP: Ingredient table information was added.
- Section 2: 2.2 & 2.3. CLP REGULATION heading information was added.
- Label: CLP Ingredients table Ingredient heading information was added.
- Label: CLP Ingredients table CAS No heading information was added.
- Label: CLP Ingredients table Percent by Wt heading information was added.
- Label: Graphic Text information was added.
- Section 9: Odour Threshold information was added.
- Section 9: Solubility (non-water) information was added.
- Section 09: Decomposition Temperature information was added.
- Section 2: H phrase reference information was added.
- Section 10: Hazardous decomposition products during combustion text information was added.
- Section 11: Disclosed components not in tables text information was added.
- Section 12: Classification Warning information was added.
- Section 11: Classification disclaimer information was added.
- Section 8: 8.1.1 Biological limit values table heading information was added.
- Section 8: BLV information was added.
- Section 2: R phrase reference information was added.
- Label: Graphic information was added.
- Label: Graphic information was added.
- Label: Graphic Text information was added.
- Section 9: Flammability (solid, gas) information information was added.
- Section 8: Eye/face protection text information was deleted.
- Section 8: Respiratory protection recommended respirators information was deleted.
- Section 2: Symbol information was deleted.
- Section 2: Symbols heading information was deleted.
- Section 12: Acute aquatic hazard information information was deleted.
- Section 12: Chronic aquatic hazard heading information was deleted.
- Section 12: Acute aquatic hazard heading information was deleted.

Page: 16 of 17

Section 12: Chronic aquatic hazard information information was deleted.

Label: CLP Supplemental Hazard Statements information was deleted.

Label: CLP Supplemental Hazard Statements - Header information was deleted.

Label: CLP Supplemental Information - Header information was deleted.

Section 8: mg/m³ key information was deleted.

Section 8: ppm key information was deleted.

Section 11: Aspiration Hazard Table information was deleted.

Section 11: Classification disclaimer information was deleted.

Section 11: UN GHS Classification table heading information was deleted.

Section 12: Classification Warning information was deleted.

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

3M United Kingdom MSDSs are available at www.3M.com/uk