



## Safety Data Sheet

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|                                       |                   |                         |            |
|---------------------------------------|-------------------|-------------------------|------------|
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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(TM) Fast Cure Glass Adhesive P/N 08613, 08628, 08629

#### Product Identification Numbers

FI-3000-0025-9

7000077198

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

##### Identified uses

Automotive.

#### 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

The health and environmental classifications of this material have been derived using the calculation method, except in cases where test data are available or the physical form impacts classification. Classification(s) based on test data or physical form are noted below, if applicable.

##### CLASSIFICATION:

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

Respiratory Sensitization, Category 1 - Resp. Sens. 1; H334  
Hazardous to the Aquatic Environment (Chronic), Category 3 - Aquatic Chronic 3; H412

For full text of H phrases, see Section 16.

## 2.2. Label elements

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

#### SIGNAL WORD

DANGER.

#### Symbols:

GHS08 (Health Hazard) |

#### Pictograms



#### Ingredients:

| Ingredient                          | CAS Nbr  | EC No.    | % by Wt   |
|-------------------------------------|----------|-----------|-----------|
| 4,4'-methylenediphenyl diisocyanate | 101-68-8 | 202-966-0 | 0.1 - 0.5 |

#### HAZARD STATEMENTS:

|      |  |
|------|--|
| H319 | Causes serious eye irritation.   |
| H315 | Causes skin irritation.  |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H412 | Harmful to aquatic life with long lasting effects.                         |

#### PRECAUTIONARY STATEMENTS

#### Prevention:

P261A Avoid breathing vapours.

#### Response:

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

#### Disposal:

P501 Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

39% of the mixture consists of components of unknown acute oral toxicity.

Contains 21% of components with unknown hazards to the aquatic environment.

## 2.3. Other hazards

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

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

| Ingredient                                    | CAS Nbr    | EC No.    | REACH Registration No. | % by Wt   | Classification  |
|---|------------|-----------|------------------------|-----------|---|
| Polyether                                     | 64298-75-5 | 500-159-0 |                        | 30 - 60   | Substance not classified as hazardous   |
| Sulphonic acids, C10-21-alkane, phenyl esters | 91082-17-6 | 293-728-5 |                        | 15 - 40   | Substance not classified as hazardous   |
| Carbon black                                  | 1333-86-4  | 215-609-9 |                        | 10 - 30   | Substance with an occupational exposure limit   |
| Kaolin, calcined                              | 92704-41-1 | 296-473-8 |                        | 5 - 15    | Substance not classified as hazardous   |
| Distillates (petroleum), hydro- treated light | 64742-47-8 | 265-149-8 |                        | < 3       | Asp. Tox. 1, H304<br>Aquatic Chronic 2, H411<br>Flam. Liq. 3, H226; Skin Irrit. 2, H315; STOT SE 3, H336  |
| 4,4'-methylenediphenyl diisocyanate           | 101-68-8   | 202-966-0 |                        | 0.1 - 0.5 | Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Resp. Sens. 1, H334; Skin Sens. 1, H317; Carc. 2, H351; STOT SE 3, H335; STOT RE 2, H373 - Nota 2,C                            |
| [3-(2,3-Epoxypropoxy)propyl] trimethoxysilane | 2530-83-8  | 219-784-2 |                        | < 0.2     | Eye Dam. 1, H318  |
| dibutyltin dichloride                         | 683-18-1   | 211-670-0 |                        | < 0.1     | Acute Tox. 2, H330; Acute Tox. 3, H301; Acute Tox. 4, H312; Skin Corr. 1B, H314; Muta. 2, H341; Repr. 1B, H360FD; STOT RE 1, H372; Aquatic Acute 1, H400,M=10; Aquatic Chronic 1, H410,M=10 |

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. Remove contact lenses if easy to do. Continue rinsing. Get medical

attention.

**If swallowed**

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

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

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**

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

**5.3. Advice for fire-fighters**

When fire fighting conditions are severe and total thermal decomposition of the product is possible, wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, tunic and trousers (leggings), bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

**SECTION 6: Accidental release measures**

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

Evacuate area. Ventilate the area with fresh air. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

**6.2. Environmental precautions**

Avoid release to the environment.

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

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. Dispose of collected material as soon as possible.

**6.4. Reference to other sections**

Refer to Section 8 and Section 13 for more information

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Avoid breathing of vapours created during the cure cycle. Do not use in a confined area with minimal air exchange. Do not handle until all safety precautions have been read and understood. Avoid breathing 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. Keep cool. Protect from sunlight. 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)**

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

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

**Occupational exposure limits**

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

| <b>Ingredient</b> | <b>CAS Nbr</b> | <b>Agency</b> | <b>Limit type</b>   | <b>Additional comments</b> |
|-------------------|----------------|---------------|---|----------------------------|
| Free isocyanates  | 101-68-8       | UK HSC        | TWA(as NCO):0.02 mg/m <sup>3</sup> ;STEL(as NCO):0.07 mg/m <sup>3</sup> | Respiratory Sensitizer     |
| Carbon black      | 1333-86-4      | UK HSC        | TWA: 3.5 mg/m <sup>3</sup> ; STEL: 7 mg/m <sup>3</sup>                  |                            |

UK HSC : UK Health and Safety Commission  
 TWA: Time-Weighted-Average  
 STEL: Short Term Exposure Limit  
 CEIL: Ceiling

**Biological limit values**

| <b>Ingredient</b> | <b>CAS Nbr</b> | <b>Agency</b> | <b>Determinant</b>         | <b>Biological Specimen</b> | <b>Sampling Time</b> | <b>Value</b> | <b>Additional comments</b> |
|-------------------|----------------|---------------|----------------------------|----------------------------|----------------------|--------------|----------------------------|
| Free isocyanates  | 101-68-8       | UK EH40 BMGVs | Isocyanate-derived diamine | Creatinine in urine        | EPE                  | 1 umol/mol   |                            |

UK EH40 BMGVs : UK. EH40 Biological Monitoring Guidance Values (BMGVs)  
 EPE: At the end of the period of exposure.

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

**8.2. Exposure controls**

**8.2.1. Engineering controls**

Provide ventilated enclosure for heat curing. 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:

Indirect vented goggles.

*Applicable Norms/Standards*

Use eye protection conforming to EN 166

**Skin/hand protection**

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the

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

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

| <b>Material</b> | <b>Thickness (mm)</b> | <b>Breakthrough Time</b> |
|-----------------|-----------------------|--------------------------|
| Nitrile rubber. | No data available     | No data available        |

#### *Applicable Norms/Standards*

Use gloves tested to EN 374

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 – Nitrile

#### **Respiratory protection**

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

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

For questions about suitability for a specific application, consult with your respirator manufacturer.

#### *Applicable Norms/Standards*

Use a respirator conforming to EN 140 or EN 136: filter types A & P

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

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

#### **Appearance**

**Physical state**  
**Colour**

Solid.  
Black

#### **Specific Physical Form:**

Paste

#### **Odor**

Slight Odor

#### **Odour threshold**

*No data available.*

#### **pH**

*Not applicable.*

#### **Boiling point/boiling range**

$\geq 192$  °C

#### **Melting point**

*No data available.*

#### **Flammability (solid, gas)**

Not classified

#### **Explosive properties**

Not classified

#### **Oxidising properties**

Not classified

#### **Flash point**

$\geq 70$  °C [Test Method: Closed Cup]

#### **Autoignition temperature**

$\geq 200$  °C

#### **Flammable Limits(LEL)**

0.6 % volume

#### **Flammable Limits(UEL)**

7 % volume

#### **Vapour pressure**

*No data available.*

#### **Relative density**

1.2 [Ref Std: WATER=1]

#### **Water solubility**

Negligible

#### **Solubility- non-water**

*No data available.*

#### **Partition coefficient: n-octanol/water**

*No data available.*

#### **Evaporation rate**

*No data available.*

#### **Vapour density**

6 [Ref Std: AIR=1]

|                                  |                                   |
|----------------------------------|-----------------------------------|
| <b>Decomposition temperature</b> | <i>No data available.</i>         |
| <b>Viscosity</b>                 | <i>No data available.</i>         |
| <b>Density</b>                   | 1.2 g/cm <sup>3</sup> [ @ 20 °C ] |

#### 9.2. Other information

|                                      |                           |
|--------------------------------------|---------------------------|
| <b>EU Volatile Organic Compounds</b> | <i>No data available.</i> |
| <b>Percent volatile</b>              | 2.5 %                     |

## 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.

### 10.5 Incompatible materials

Accelerators  
Aluminium or magnesium powder and high/shear temperature conditions.  
Alcohols.  
Alkali and alkaline earth metals.  
Amines.  
Strong acids.  
Strong bases.  
Strong oxidising agents.  
Water

### 10.6 Hazardous decomposition products

| <u>Substance</u>    | <u>Condition</u> |
|---------------------|------------------|
| Carbon monoxide     | Not specified.   |
| Carbon dioxide.     | Not specified.   |
| Hydrogen cyanide.   | Not specified.   |
| Oxides of nitrogen. | Not specified.   |

## 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

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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 additional health effects (see below).

**Skin contact**

Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, dryness, cracking, blistering, and pain. 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**

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

**Additional Health Effects:****Carcinogenicity:**

Contains a chemical or chemicals which can cause cancer.

**Additional information:**

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

**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 |
| Sulphonic acids, C10-21-alkane, phenyl esters | Dermal                         | Rat     | LD50 > 1,055 mg/kg                             |
| Sulphonic acids, C10-21-alkane, phenyl esters | Ingestion                      | Rat     | LD50 > 15,825 mg/kg                            |
| Carbon black                                  | Dermal                         | Rabbit  | LD50 > 3,000 mg/kg                             |
| Carbon black                                  | Ingestion                      | Rat     | LD50 > 8,000 mg/kg                             |
| Kaolin, calcined                              | Dermal                         |         | LD50 estimated to be 2,000 - 5,000 mg/kg       |
| Kaolin, calcined                              | Ingestion                      | Rat     | LD50 > 2,000 mg/kg                             |
| Distillates (petroleum), hydro- treated light | Dermal                         | Rabbit  | LD50 > 3,160 mg/kg                             |
| Distillates (petroleum), hydro- treated light | Inhalation-Dust/Mist (4 hours) | Rat     | LC50 > 3 mg/l                                  |
| Distillates (petroleum), hydro- treated light | Ingestion                      | Rat     | LD50 > 5,000 mg/kg                             |
| 4,4'-methylenediphenyl diisocyanate           | Dermal                         | Rabbit  | LD50 > 5,000 mg/kg                             |
| 4,4'-methylenediphenyl diisocyanate           | Inhalation-Dust/Mist (4 hours) | Rat     | LC50 0.368 mg/l                                |
| 4,4'-methylenediphenyl diisocyanate           | Ingestion                      | Rat     | LD50 31,600 mg/kg                              |
| [3-(2,3-Epoxypropoxy)propyl] trimethoxysilane | Dermal                         | Rabbit  | LD50 4,000 mg/kg                               |
| [3-(2,3-Epoxypropoxy)propyl] trimethoxysilane | Inhalation-Dust/Mist (4 hours) | Rat     | LC50 > 5.3 mg/l                                |
| [3-(2,3-Epoxypropoxy)propyl] trimethoxysilane | Ingestion                      | Rat     | LD50 7,010 mg/kg                               |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name  | Species          | Value                     |
|---|------------------|---------------------------|
| Sulphonic acids, C10-21-alkane, phenyl esters | Human and animal | No significant irritation |



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|   |                         |                           |
|---|-------------------------|---------------------------|
| Carbon black                                  | Rabbit                  | No significant irritation |
| Distillates (petroleum), hydro- treated light | Rabbit                  | Mild irritant             |
| 4,4'-methylenediphenyl diisocyanate           | official classification | Irritant                  |
| [3-(2,3-Epoxypropoxy)propyl] trimethoxysilane | Rabbit                  | Mild irritant             |

**Serious Eye Damage/Irritation**

| Name  | Species                 | Value                     |
|---|-------------------------|---------------------------|
| Sulphonic acids, C10-21-alkane, phenyl esters | Rabbit                  | No significant irritation |
| Carbon black                                  | Rabbit                  | No significant irritation |
| Distillates (petroleum), hydro- treated light | Rabbit                  | Mild irritant             |
| 4,4'-methylenediphenyl diisocyanate           | official classification | Severe irritant           |
| [3-(2,3-Epoxypropoxy)propyl] trimethoxysilane | Rabbit                  | Corrosive                 |

**Skin Sensitisation**

| Name  | Species                 | Value          |
|---|-------------------------|----------------|
| Distillates (petroleum), hydro- treated light | Guinea pig              | Not classified |
| 4,4'-methylenediphenyl diisocyanate           | official classification | Sensitising    |
| [3-(2,3-Epoxypropoxy)propyl] trimethoxysilane | Guinea pig              | Not classified |

**Respiratory Sensitisation**

| Name                                | Species | Value       |
|-------------------------------------|---------|-------------|
| 4,4'-methylenediphenyl diisocyanate | Human   | Sensitising |

**Germ Cell Mutagenicity**

| Name  | Route    | Value  |
|---|----------|--|
| Sulphonic acids, C10-21-alkane, phenyl esters | In Vitro | Not mutagenic  |
| Carbon black                                  | In Vitro | Not mutagenic  |
| Carbon black                                  | In vivo  | Some positive data exist, but the data are not sufficient for classification |
| Distillates (petroleum), hydro- treated light | In Vitro | Not mutagenic  |
| 4,4'-methylenediphenyl diisocyanate           | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| [3-(2,3-Epoxypropoxy)propyl] trimethoxysilane | In vivo  | Not mutagenic  |
| [3-(2,3-Epoxypropoxy)propyl] trimethoxysilane | In Vitro | Some positive data exist, but the data are not sufficient for classification |

**Carcinogenicity**

| Name  | Route      | Species | Value  |
|---|------------|---------|--|
| Carbon black                                  | Dermal     | Mouse   | Not carcinogenic   |
| Carbon black                                  | Ingestion  | Mouse   | Not carcinogenic   |
| Carbon black                                  | Inhalation | Rat     | Carcinogenic   |
| Distillates (petroleum), hydro- treated light | Dermal     | Mouse   | Some positive data exist, but the data are not sufficient for classification |
| 4,4'-methylenediphenyl diisocyanate           | Inhalation | Rat     | Some positive data exist, but the data are not sufficient for classification |
| [3-(2,3-Epoxypropoxy)propyl] trimethoxysilane | Dermal     | Mouse   | Not carcinogenic   |

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

| Name  | Route      | Value                                  | Species | Test result           | Exposure Duration    |
|---|------------|--|---------|-----------------------|----------------------|
| Sulphonic acids, C10-21-alkane, phenyl esters | Ingestion  | Not classified for female reproduction | Rat     | NOAEL 530 mg/kg/day   | 1 generation         |
| Sulphonic acids, C10-21-alkane, phenyl esters | Ingestion  | Not classified for development         | Rat     | NOAEL 530 mg/kg/day   | 1 generation         |
| 4,4'-methylenediphenyl diisocyanate           | Inhalation | Not classified for development         | Rat     | NOAEL 0.004 mg/l      | during organogenesis |
| [3-(2,3-Epoxypropoxy)propyl] trimethoxysilane | Ingestion  | Not classified for female reproduction | Rat     | NOAEL 1,000 mg/kg/day | 1 generation         |
| [3-(2,3-Epoxypropoxy)propyl] trimethoxysilane | Ingestion  | Not classified for male reproduction   | Rat     | NOAEL 1,000 mg/kg/day | 1 generation         |
| [3-(2,3-Epoxypropoxy)propyl] trimethoxysilane | Ingestion  | Not classified for development         | Rat     | NOAEL 3,000 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 |
|---|------------|-----------------------------------|--|-------------------------|---------------------|-------------------|
| Distillates (petroleum), hydro- treated light | Inhalation | central nervous system depression | May cause drowsiness or dizziness  | Human and animal        | NOAEL Not available |                   |
| Distillates (petroleum), hydro- treated light | Inhalation | respiratory irritation            | Some positive data exist, but the data are not sufficient for classification |                         | NOAEL Not available |                   |
| Distillates (petroleum), hydro- treated light | Ingestion  | central nervous system depression | May cause drowsiness or dizziness  | Professional judgement  | NOAEL Not available |                   |
| 4,4'-methylenediphenyl diisocyanate           | Inhalation | respiratory irritation            | May cause respiratory irritation   | official classification | NOAEL Not available |                   |

**Specific Target Organ Toxicity - repeated exposure**

| Name  | Route      | Target Organ(s)   | Value  | Species | Test result           | Exposure Duration     |
|---|------------|---|--|---------|-----------------------|-----------------------|
| Sulphonic acids, C10-21-alkane, phenyl esters | Ingestion  | liver   kidney and/or bladder   | Not classified   | Rat     | NOAEL 1,490 mg/kg/day | 90 days               |
| Carbon black                                  | Inhalation | pneumoconiosis  | Not classified   | Human   | NOAEL Not available   | occupational exposure |
| 4,4'-methylenediphenyl diisocyanate           | Inhalation | respiratory system  | Causes damage to organs through prolonged or repeated exposure | Rat     | LOAEL 0.004 mg/l      | 13 weeks              |
| [3-(2,3-Epoxypropoxy)propyl] trimethoxysilane | Ingestion  | heart   endocrine system   bone, teeth, nails, and/or hair   hematopoietic system   liver   immune system   nervous system   kidney and/or bladder   respiratory system | Not classified   | Rat     | NOAEL 1,000 mg/kg/day | 28 days               |

**Aspiration Hazard**

| Name  | Value             |
|---|-------------------|
| Distillates (petroleum), hydro- treated light | 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 #      | Organism      | Type  | Exposure | Test endpoint            | Test result |
|---|------------|---------------|---|----------|--------------------------|-------------|
| Polyether                                     | 64298-75-5 |               | Data not available or insufficient for classification |          |                          |             |
| Sulphonic acids, C10-21-alkane, phenyl esters | 91082-17-6 | Green algae   | Experimental  | 72 hours | EC50                     | >100 mg/l   |
| Sulphonic acids, C10-21-alkane, phenyl esters | 91082-17-6 | Water flea    | Experimental  | 48 hours | EC50                     | >100 mg/l   |
| Sulphonic acids, C10-21-alkane, phenyl esters | 91082-17-6 | Zebra Fish    | Experimental  | 96 hours | LC50                     | >100 mg/l   |
| Sulphonic acids, C10-21-alkane, phenyl esters | 91082-17-6 | Green algae   | Experimental  | 72 hours | NOEC                     | >100 mg/l   |
| Carbon black                                  | 1333-86-4  |               | Data not available or insufficient for classification |          |                          |             |
| Kaolin, calcined                              | 92704-41-1 | Green algae   | Estimated   | 72 hours | EC50                     | 2,500 mg/l  |
| Kaolin, calcined                              | 92704-41-1 | Water flea    | Estimated   | 48 hours | EC50                     | >100 mg/l   |
| Kaolin, calcined                              | 92704-41-1 | Zebra Fish    | Estimated   | 96 hours | LC50                     | >100 mg/l   |
| Kaolin, calcined                              | 92704-41-1 | Green algae   | Estimated   | 72 hours | Effect Concentration 10% | 41 mg/l     |
| Kaolin, calcined                              | 92704-41-1 | Rainbow trout | Estimated   | 30 days  | NOEC                     | >100 mg/l   |
| Distillates (petroleum), hydro- treated light | 64742-47-8 | Green Algae   | Estimated   | 72 hours | EC50                     | 1 mg/l      |
| Distillates (petroleum), hydro- treated light | 64742-47-8 | Rainbow trout | Estimated   | 96 hours | Lethal Level 50%         | 2 mg/l      |
| Distillates (petroleum), hydro- treated light | 64742-47-8 | Water flea    | Estimated   | 48 hours | Effect Level 50%         | 1.4 mg/l    |
| Distillates (petroleum), hydro- treated light | 64742-47-8 | Green Algae   | Estimated   | 72 hours | No obs Effect Level      | 1 mg/l      |
| Distillates (petroleum), hydro- treated light | 64742-47-8 | Water flea    | Estimated   | 21 days  | No obs Effect Level      | 0.48 mg/l   |
| 4,4'-methylenediphenyl diisocyanate           | 101-68-8   | Green algae   | Estimated   | 72 hours | EC50                     | >1,640 mg/l |
| 4,4'-methylenediphenyl diisocyanate           | 101-68-8   | Water flea    | Estimated   | 24 hours | EC50                     | >1,000 mg/l |
| 4,4'-methylenediphenyl diisocyanate           | 101-68-8   | Zebra Fish    | Estimated   | 96 hours | LC50                     | >1,000 mg/l |
| 4,4'-methylenediphenyl diisocyanate           | 101-68-8   | Green algae   | Estimated   | 72 hours | NOEC                     | 1,640 mg/l  |
| 4,4'-methylenediphenyl diisocyanate           | 101-68-8   | Water flea    | Estimated   | 21 days  | NOEC                     | 10 mg/l     |
| [3-(2,3-Epoxypropoxy)propyl] trimethoxysilane | 2530-83-8  | Common Carp   | Experimental  | 96 hours | LC50                     | 55 mg/l     |

**3M(TM) Fast Cure Glass Adhesive P/N 08613, 08628, 08629**

|  |           |                 |              |          |      |            |
|--|-----------|-----------------|--------------|----------|------|------------|
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane | 2530-83-8 | Crustacea other | Experimental | 48 hours | LC50 | 324 mg/l   |
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane | 2530-83-8 | Green algae     | Experimental | 96 hours | EC50 | 350 mg/l   |
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane | 2530-83-8 | Green Algae     | Experimental | 96 hours | NOEC | 130 mg/l   |
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane | 2530-83-8 | Water flea      | Experimental | 21 days  | NOEC | >=100 mg/l |
| dibutyltin dichloride                        | 683-18-1  | Algae           | Experimental | 96 hours | EC50 | 0.043 mg/l |
| dibutyltin dichloride                        | 683-18-1  | Water flea      | Experimental | 48 hours | EC50 | 0.84 mg/l  |
| dibutyltin dichloride                        | 683-18-1  | Ricefish        | Experimental | 28 days  | NOEC | 1.8 mg/l   |
| dibutyltin dichloride                        | 683-18-1  | Water flea      | Experimental | 21 days  | NOEC | 0.015 mg/l |

**12.2. Persistence and degradability**

| Material                                      | CAS Nbr    | Test type                     | Duration | Study Type                     | Test result        | Protocol                          |
|---|------------|-------------------------------|----------|--------------------------------|--------------------|-----------------------------------|
| Polyether                                     | 64298-75-5 | Data not availbl-insufficient |          |                                | N/A                |                                   |
| Sulphonic acids, C10-21-alkane, phenyl esters | 91082-17-6 | Experimental Biodegradation   | 28 days  | BOD                            | 49 % weight        |                                   |
| Carbon black                                  | 1333-86-4  | Data not availbl-insufficient |          |                                | N/A                |                                   |
| Kaolin, calcined                              | 92704-41-1 | Data not availbl-insufficient |          |                                | N/A                |                                   |
| Distillates (petroleum), hydro- treated light | 64742-47-8 | Data not availbl-insufficient |          |                                | N/A                |                                   |
| 4,4'-methylenediphenyl diisocyanate           | 101-68-8   | Estimated Hydrolysis          |          | Hydrolytic half-life           | 20 hours (t 1/2)   | Other methods                     |
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane  | 2530-83-8  | Experimental Hydrolysis       |          | Hydrolytic half-life           | 6.5 hours (t 1/2)  | Other methods                     |
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane  | 2530-83-8  | Experimental Biodegradation   | 28 days  | Dissolv. Organic Carbon Deplet | 37 % weight        | Other methods                     |
| dibutyltin dichloride                         | 683-18-1   | Modeled Photolysis            |          | Photolytic half-life (in air)  | 12.7 hours (t 1/2) | Other methods                     |
| dibutyltin dichloride                         | 683-18-1   | Experimental Biodegradation   | 28 days  | CO2 evolution                  | 5.5 % weight       | OECD 301B - Modified sturm or CO2 |

**12.3 : Bioaccumulative potential**

| Material                                      | Cas No.    | Test type   | Duration | Study Type             | Test result | Protocol                          |
|---|------------|---|----------|------------------------|-------------|-----------------------------------|
| Polyether                                     | 64298-75-5 | Data not available or insufficient for classification | N/A      | N/A                    | N/A         | N/A                               |
| Sulphonic acids, C10-21-alkane, phenyl esters | 91082-17-6 | Experimental BCF-Carp                                 | 36 days  | Bioaccumulation factor | 56-212      |                                   |
| Carbon black                                  | 1333-86-4  | Data not available or insufficient for classification | N/A      | N/A                    | N/A         | N/A                               |
| Kaolin, calcined                              | 92704-41-1 | Data not available or insufficient for classification | N/A      | N/A                    | N/A         | N/A                               |
| Distillates (petroleum), hydro- treated light | 64742-47-8 | Data not available or insufficient for classification | N/A      | N/A                    | N/A         | N/A                               |
| 4,4'-methylenediphenyl diisocyanate           | 101-68-8   | Experimental BCF-Carp                                 | 28 days  | Bioaccumulation factor | 200         | OECD 305E - Bioaccumulation flow- |

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|  |           |   |     |     |     |                   |
|--|-----------|---|-----|-----|-----|-------------------|
|  |           |   |     |     |     | through fish test |
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane | 2530-83-8 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A               |
| dibutyltin dichloride                        | 683-18-1  | Data not available or insufficient for classification | N/A | N/A | N/A | N/A               |

**12.4. Mobility in soil**

Please contact manufacturer for more details

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

This material does not contain any substances that are assessed to be a PBT or vPvB

**12.6. Other adverse effects**

No information available.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. 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 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  
20 01 27\* Paint, inks, adhesives and resins containing dangerous substances

**SECTION 14: Transportation information**

FI-3000-0025-9

Not hazardous for transportation

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Carcinogenicity**

| <u>Ingredient</u>                   | <u>CAS Nbr</u> | <u>Classification</u>         | <u>Regulation</u>                           |
|-------------------------------------|----------------|-------------------------------|---|
| Carbon black                        | 1333-86-4      | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |
| 4,4'-methylenediphenyl diisocyanate | 101-68-8       | Carc. 2                       | Regulation (EC) No.                         |

|                                     |          |                         |  |
|-------------------------------------|----------|-------------------------|--|
| 4,4'-methylenediphenyl diisocyanate | 101-68-8 | Gr. 3: Not classifiable | 1272/2008, Table 3.1<br>International Agency<br>for Research on Cancer |
|-------------------------------------|----------|-------------------------|--|

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

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

| <u>Ingredient</u>                   | <u>CAS Nbr</u> |
|-------------------------------------|----------------|
| 4,4'-methylenediphenyl diisocyanate | 101-68-8       |

Restriction status: listed in REACH Annex XVII

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

**Authorization status under REACH:**

The following substance/s contained in this product might be or is/are subject to authorization in accordance with REACH:

| <u>Ingredient</u>     | <u>CAS Nbr</u> |
|-----------------------|----------------|
| dibutyltin dichloride | 683-18-1       |

Authorization status: listed in the Candidate List of Substances of Very High Concern for Authorization

**15.2. Chemical Safety Assessment**

A chemical safety assessment has not been carried out for this substance/mixture in accordance with Regulation (EC) No 1907/2006, as amended.

**SECTION 16: Other information****List of relevant H statements**

|        |  |
|--------|--|
| H226   | Flammable liquid and vapour.   |
| H301   | Toxic if swallowed.  |
| H304   | May be fatal if swallowed and enters airways.                              |
| 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.  |
| H334   | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335   | May cause respiratory irritation.  |
| H336   | May cause drowsiness or dizziness.   |
| H341   | Suspected of causing genetic defects.                                      |
| H351   | Suspected of causing cancer.   |
| H360FD | May damage fertility. May damage the unborn child.                         |
| H372   | Causes damage to organs through prolonged or repeated exposure.            |
| 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:**

Label: CLP Percent Unknown information was modified.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into the European Union, you are responsible for all regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration.

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