



## Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (1907/2006), as amended for GB.

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

#### 1.1. Product identifier

3M™ Adhesive 1099

#### Product Identification Numbers

|                |                |                |                |                |
|----------------|----------------|----------------|----------------|----------------|
| FS-9100-0586-7 | FS-9100-0589-1 | FS-9100-0634-5 | FS-9100-0699-8 | FS-9100-2535-2 |
| 7000033731     | 7000079821     | 7000033732     | 7000079824     | 7000079905     |

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

##### Identified uses

Plastic adhesive.

#### 1.3. Details of the supplier of the safety data sheet

**Address:** 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.  
**Telephone:** +44 (0)1344 858 000  
**E Mail:** tox.uk@mmm.com  
**Website:** www.3M.com/uk

#### 1.4. Emergency telephone number

+44 (0)1344 858 000

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain

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

#### CLASSIFICATION:

Flammable Liquid, Category 2 - Flam. Liq. 2; H225  
 Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319  
 Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H336  
 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

The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain

### SIGNAL WORD

DANGER.

### Symbols

GHS02 (Flame) | GHS07 (Exclamation mark) |

### Pictograms



| Ingredient                                                            | CAS Nbr      | EC No.    | % by Wt |
|-----------------------------------------------------------------------|--------------|-----------|---------|
| acetone                                                               | 67-64-1      | 200-662-2 | 60 - 70 |
| Acrylonitrile - butadiene polymer                                     | 9003-18-3    |           | 10 - 20 |
| Phenol-formaldehyde resin                                             | Trade Secret |           | 5 - 10  |
| Phenolic resin                                                        | Trade Secret |           | 5 - 10  |
| salicylic acid                                                        | 69-72-7      | 200-712-3 | 1 - 2.5 |
| zinc oxide                                                            | 1314-13-2    | 215-222-5 | < 2     |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | 68411-46-1   | 270-128-1 | < 1     |
| 4-tert-butylphenol                                                    | 98-54-4      | 202-679-0 | < 1     |
| phenol                                                                | 108-95-2     | 203-632-7 | < 0.5   |
| o-cresol                                                              | 95-48-7      | 202-423-8 | < 0.3   |
| formaldehyde                                                          | 50-00-0      | 200-001-8 | < 0.1   |

### HAZARD STATEMENTS:

|      |                                                    |
|------|----------------------------------------------------|
| H225 | Highly flammable liquid and vapour.                |
| H319 | Causes serious eye irritation.                     |
| H336 | May cause drowsiness or dizziness.                 |
| H412 | Harmful to aquatic life with long lasting effects. |

### PRECAUTIONARY STATEMENTS

#### Prevention:

|       |                                                                                                |
|-------|------------------------------------------------------------------------------------------------|
| P210  | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P261A | Avoid breathing vapours.                                                                       |

#### 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. |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------|

P370 + P378

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

**SUPPLEMENTAL INFORMATION:****Supplemental Hazard Statements:**

EUH066

Repeated exposure may cause skin dryness or cracking.

EUH208

Contains formaldehyde. May produce an allergic reaction.

Contains 8% of components with unknown hazards to the aquatic environment.

**2.3. Other hazards**

Contains a substance identified as an endocrine disrupter in the list established in accordance with REACH Article 59(1), as amended by UK REACH Regulations SI 2019/758

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

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

Not applicable

**3.2. Mixtures**

| Ingredient                                                            | Identifier(s)                              | %       | Classification according to Regulation (EC) No. 1272/2008 [CLP], as amended for GB                     |
|-----------------------------------------------------------------------|--------------------------------------------|---------|--------------------------------------------------------------------------------------------------------|
| acetone                                                               | (CAS-No.) 67-64-1<br>(EC-No.) 200-662-2    | 60 - 70 | Flam. Liq. 2, H225<br>Eye Irrit. 2, H319<br>STOT SE 3, H336<br>EUH066                                  |
| Acrylonitrile - butadiene polymer                                     | (CAS-No.) 9003-18-3                        | 10 - 20 | Substance not classified as hazardous                                                                  |
| Phenolic resin                                                        | Trade Secret                               | 5 - 10  | Substance not classified as hazardous                                                                  |
| Phenol-formaldehyde resin                                             | Trade Secret                               | 5 - 10  | Substance not classified as hazardous                                                                  |
| salicylic acid                                                        | (CAS-No.) 69-72-7<br>(EC-No.) 200-712-3    | 1 - 2.5 | Acute Tox. 4, H302<br>Eye Dam. 1, H318<br>Repr. 2, H361d                                               |
| zinc oxide                                                            | (CAS-No.) 1314-13-2<br>(EC-No.) 215-222-5  | < 2     | Aquatic Acute 1, H400,M=1<br>Aquatic Chronic 1, H410,M=1                                               |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | (CAS-No.) 68411-46-1<br>(EC-No.) 270-128-1 | < 1     | Repr. 2, H361f<br>Aquatic Acute 1, H400,M=1<br>Aquatic Chronic 1, H410,M=1                             |
| 4-tert-butylphenol                                                    | (CAS-No.) 98-54-4<br>(EC-No.) 202-679-0    | < 1     | Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>Repr. 2, H361f<br>Aquatic Chronic 1, H410,M=1               |
| phenol                                                                | (CAS-No.) 108-95-2<br>(EC-No.) 203-632-7   | < 0.5   | Acute Tox. 3, H331<br>Acute Tox. 3, H311<br>Acute Tox. 3, H301<br>Skin Corr. 1B, H314<br>Muta. 2, H341 |

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|              |                                         |       |                                                                                                                                                                                                    |
|--------------|-----------------------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              |                                         |       | STOT RE 2, H373<br>Aquatic Chronic 2, H411                                                                                                                                                         |
| o-cresol     | (CAS-No.) 95-48-7<br>(EC-No.) 202-423-8 | < 0.3 | Acute Tox. 3, H311<br>Acute Tox. 3, H301<br>Skin Corr. 1B, H314<br>Nota C<br>Aquatic Chronic 3, H412                                                                                               |
| formaldehyde | (CAS-No.) 50-00-0<br>(EC-No.) 200-001-8 | < 0.1 | Acute Tox. 2, H330<br>Acute Tox. 3, H311<br>Acute Tox. 3, H301<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>Skin Sens. 1A, H317<br>Muta. 2, H341<br>Carc. 1B, H350<br>STOT SE 3, H335<br>Nota B,D |

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

**Specific Concentration Limits**

| Ingredient   | Identifier(s)                            | Specific Concentration Limits                                                                                                                                                                        |
|--------------|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| formaldehyde | (CAS-No.) 50-00-0<br>(EC-No.) 200-001-8  | (C ≥ 25%) Skin Corr. 1B, H314<br>(5% ≤ C < 25%) Skin Irrit. 2, H315<br>(C ≥ 25%) Eye Dam. 1, H318<br>(5% ≤ C < 25%) Eye Irrit. 2, H319<br>(C ≥ 0.2%) Skin Sens. 1A, H317<br>(C ≥ 5%) STOT SE 3, H335 |
| phenol       | (CAS-No.) 108-95-2<br>(EC-No.) 203-632-7 | (C ≥ 3%) Skin Corr. 1B, H314<br>(1% ≤ C < 3%) Skin Irrit. 2, H315<br>(1% ≤ C < 3%) Eye Irrit. 2, H319                                                                                                |

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

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

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

**Skin contact**

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

**Eye contact**

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

**If swallowed**

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

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

The most important symptoms and effects based on the GB CLP classification include:

Toxic by eye contact. Serious irritation to the eyes (significant redness, swelling, pain, tearing, and impaired vision). Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness).

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

Not applicable

**SECTION 5: Fire-fighting measures****5.1. Extinguishing media**

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

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

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

**Hazardous Decomposition or By-Products****Substance**

Carbon monoxide

Carbon dioxide.

Hydrogen cyanide.

Oxides of nitrogen.

**Condition**

During combustion.

During combustion.

During combustion.

During combustion.

**5.3. Advice for fire-fighters**

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

**6.2. Environmental precautions**

Avoid release to the environment. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

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

Contain spill. Cover spill area with a fire-extinguishing foam. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible.

**6.4. Reference to other sections**

Refer to Section 8 and Section 13 for more information

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

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

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

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Protect from sunlight. Store away from heat. Store away from acids. Store away from oxidising agents.

### 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.

| Ingredient              | CAS Nbr   | Agency | Limit type                                                                               | Additional comments |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------|---------------------|
| phenol                  | 108-95-2  | UK HSC | TWA:7.8 mg/m <sup>3</sup> (2 ppm);STEL:16 mg/m <sup>3</sup> (4 ppm)                      | SKIN                |
| DUST, INERT OR NUISANCE | 1314-13-2 | UK HSC | TWA(as respirable dust):4 mg/m <sup>3</sup> ;TWA(as inhalable dust):10 mg/m <sup>3</sup> |                     |
| formaldehyde            | 50-00-0   | UK HSC | TWA:2.5 mg/m <sup>3</sup> (2 ppm);STEL:2.5 mg/m <sup>3</sup> (2 ppm)                     |                     |
| acetone                 | 67-64-1   | UK HSC | TWA:1210 mg/m <sup>3</sup> (500 ppm);STEL:3620 mg/m <sup>3</sup> (1500 ppm)              |                     |

UK HSC : UK Health and Safety Commission

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

#### Biological limit values

No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

### 8.2. Exposure controls

#### 8.2.1. Engineering controls

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

#### 8.2.2. Personal protective equipment (PPE)

**Eye/face protection**

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

Safety glasses with side shields.

Indirect vented goggles.

*Applicable Norms/Standards*

Use eye protection conforming to EN 166

**Skin/hand protection**

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

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

| <b>Material</b>  | <b>Thickness (mm)</b> | <b>Breakthrough Time</b> |
|------------------|-----------------------|--------------------------|
| Polymer laminate | No data available     | No data available        |
| Butyl rubber.    | 0.5                   | 4-8 hours                |

The glove data presented are based on the substance driving dermal toxicity and the conditions present at the time of testing. Breakthrough time may be altered when the glove is subjected to use conditions that place additional stress on the glove.

*Applicable Norms/Standards*

Use gloves tested to EN 374

**Respiratory protection**

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

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

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

*Applicable Norms/Standards*

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

## SECTION 9: Physical and chemical properties

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

|                                     |                                          |
|-------------------------------------|------------------------------------------|
| <b>Physical state</b>               | Liquid.                                  |
| <b>Specific Physical Form:</b>      | Liquid.                                  |
| <b>Colour</b>                       | Off-White                                |
| <b>Odor</b>                         | Ketones.                                 |
| <b>Odour threshold</b>              | No data available.                       |
| <b>Melting point/freezing point</b> | No data available.                       |
| <b>Boiling point/boiling range</b>  | 56 °C [Details:Acetone value]            |
| <b>Flammability</b>                 | Flammable Liquid: Category 2.            |
| <b>Flammable Limits(LEL)</b>        | 2.1 % volume [Details:Acetone value LEL] |
| <b>Flammable Limits(UEL)</b>        | 13 % volume [Details:Acetone value UEL]  |

|                                        |                                             |
|----------------------------------------|---------------------------------------------|
| Flash point                            | -18 °C [Details: Closed cup]                |
| Autoignition temperature               | No data available.                          |
| Decomposition temperature              | No data available.                          |
| pH                                     | substance/mixture is non-soluble (in water) |
| Kinematic Viscosity                    | 1,667 - 1,724 mm <sup>2</sup> /sec          |
| Water solubility                       | No data available.                          |
| Solubility- non-water                  | No data available.                          |
| Partition coefficient: n-octanol/water | No data available.                          |
| Vapour pressure                        | 23,998 Pa                                   |
| Density                                | 0.87 - 0.9 g/cm <sup>3</sup>                |
| Relative density                       | 0.87 - 0.9 [Ref Std: WATER=1]               |
| Relative Vapour Density                | 2 [Ref Std: AIR=1]                          |
| Particle Characteristics               | Not applicable.                             |

## 9.2. Other information

### 9.2.2 Other safety characteristics

|                               |                        |
|-------------------------------|------------------------|
| EU Volatile Organic Compounds | No data available.     |
| Evaporation rate              | 1.9 [Ref Std: WATER=1] |
| Molecular weight              | No data available.     |
| Percent volatile              | 62 - 67 %              |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

This material is considered to be non reactive under normal use conditions

### 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

Strong oxidising agents.

### 10.6 Hazardous decomposition products

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

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

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

### 11.1. Information on hazard classes as defined in the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain.

#### Signs and Symptoms of Exposure

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

##### Inhalation

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

##### Skin contact

Prolonged or repeated exposure may cause: Dermal Defatting: Signs/symptoms may include localized redness, itching, drying and cracking of skin. Allergic Skin Reaction (non-photo induced) in sensitive people: 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. May cause additional health effects (see below).

#### Additional Health Effects:

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

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.

#### Toxicological Data

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

#### Acute Toxicity

| Name                              | Route                       | Species | Value                                          |
|-----------------------------------|-----------------------------|---------|------------------------------------------------|
| Overall product                   | Dermal                      |         | No data available; calculated ATE >5,000 mg/kg |
| Overall product                   | Inhalation-Vapour(4 hr)     |         | No data available; calculated ATE >50 mg/l     |
| Overall product                   | Ingestion                   |         | No data available; calculated ATE >5,000 mg/kg |
| acetone                           | Dermal                      | Rabbit  | LD50 > 15,688 mg/kg                            |
| acetone                           | Inhalation-Vapour (4 hours) | Rat     | LC50 76 mg/l                                   |
| acetone                           | Ingestion                   | Rat     | LD50 5,800 mg/kg                               |
| Acrylonitrile - butadiene polymer | Dermal                      | Rabbit  | LD50 > 15,000 mg/kg                            |
| Acrylonitrile - butadiene polymer | Ingestion                   | Rat     | LD50 > 30,000 mg/kg                            |
| Phenolic resin                    | Dermal                      |         | LD50 estimated to be > 5,000 mg/kg             |
| Phenolic resin                    | Ingestion                   |         | LD50 estimated to be 2,000 - 5,000 mg/kg       |
| Phenol-formaldehyde resin         | Dermal                      |         | LD50 estimated to be > 5,000 mg/kg             |
| Phenol-formaldehyde resin         | Ingestion                   | Rat     | LD50 5,660 mg/kg                               |
| salicylic acid                    | Dermal                      | Rat     | LD50 > 2,000 mg/kg                             |

**3M™ Adhesive 1099**

|                                                                       |                                |        |                                    |
|-----------------------------------------------------------------------|--------------------------------|--------|------------------------------------|
| salicylic acid                                                        | Ingestion                      | Rat    | LD50 891 mg/kg                     |
| zinc oxide                                                            | Dermal                         |        | LD50 estimated to be > 5,000 mg/kg |
| zinc oxide                                                            | Inhalation-Dust/Mist (4 hours) | Rat    | LC50 > 5.7 mg/l                    |
| zinc oxide                                                            | Ingestion                      | Rat    | LD50 > 5,000 mg/kg                 |
| phenol                                                                | Inhalation-Vapour              |        | LC50 estimated to be 2 - 10 mg/l   |
| phenol                                                                | Dermal                         | Rat    | LD50 670 mg/kg                     |
| phenol                                                                | Ingestion                      | Rat    | LD50 340 mg/kg                     |
| 4-tert-butylphenol                                                    | Dermal                         | Rabbit | LD50 2,318 mg/kg                   |
| 4-tert-butylphenol                                                    | Inhalation-Dust/Mist (4 hours) | Rat    | LC50 > 5.6 mg/l                    |
| 4-tert-butylphenol                                                    | Ingestion                      | Rat    | LD50 4,000 mg/kg                   |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | Dermal                         | Rat    | LD50 > 2,000 mg/kg                 |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | Ingestion                      | Rat    | LD50 > 5,000 mg/kg                 |
| o-cresol                                                              | Dermal                         | Rabbit | LD50 890 mg/kg                     |
| o-cresol                                                              | Inhalation-Vapour (4 hours)    | Rat    | LC50 > 24.5 mg/l                   |
| o-cresol                                                              | Ingestion                      | Rat    | LD50 121 mg/kg                     |
| formaldehyde                                                          | Dermal                         | Rabbit | LD50 270 mg/kg                     |
| formaldehyde                                                          | Inhalation-Gas (4 hours)       | Rat    | LC50 470 ppm                       |
| formaldehyde                                                          | Ingestion                      | Rat    | LD50 800 mg/kg                     |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name                                                                  | Species                 | Value                     |
|-----------------------------------------------------------------------|-------------------------|---------------------------|
| acetone                                                               | Mouse                   | Minimal irritation        |
| Acrylonitrile - butadiene polymer                                     | Professional judgement  | No significant irritation |
| salicylic acid                                                        | Rabbit                  | No significant irritation |
| zinc oxide                                                            | Human and animal        | No significant irritation |
| phenol                                                                | Rat                     | Corrosive                 |
| 4-tert-butylphenol                                                    | Rabbit                  | Irritant                  |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | Rabbit                  | Mild irritant             |
| o-cresol                                                              | Rabbit                  | Corrosive                 |
| formaldehyde                                                          | official classification | Corrosive                 |

**Serious Eye Damage/Irritation**

| Name                                                                  | Species                | Value                     |
|-----------------------------------------------------------------------|------------------------|---------------------------|
| acetone                                                               | Rabbit                 | Severe irritant           |
| Acrylonitrile - butadiene polymer                                     | Professional judgement | No significant irritation |
| salicylic acid                                                        | Rabbit                 | Corrosive                 |
| zinc oxide                                                            | Rabbit                 | Mild irritant             |
| phenol                                                                | Rabbit                 | Corrosive                 |
| 4-tert-butylphenol                                                    | Rabbit                 | Corrosive                 |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | Rabbit                 | Mild irritant             |

**3M™ Adhesive 1099**

|              |                         |           |
|--------------|-------------------------|-----------|
| o-cresol     | Rabbit                  | Corrosive |
| formaldehyde | official classification | Corrosive |

**Skin Sensitisation**

| Name                                                                  | Species          | Value                                                                        |
|-----------------------------------------------------------------------|------------------|------------------------------------------------------------------------------|
| Phenol-formaldehyde resin                                             | Human            | Some positive data exist, but the data are not sufficient for classification |
| salicylic acid                                                        | Mouse            | Not classified                                                               |
| zinc oxide                                                            | Guinea pig       | Not classified                                                               |
| phenol                                                                | Guinea pig       | Not classified                                                               |
| 4-tert-butylphenol                                                    | Human and animal | Not classified                                                               |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | Guinea pig       | Not classified                                                               |
| formaldehyde                                                          | Guinea pig       | Sensitising                                                                  |

**Photosensitisation**

| Name           | Species | Value           |
|----------------|---------|-----------------|
| salicylic acid | Mouse   | Not sensitising |

**Respiratory Sensitisation**

| Name         | Species | Value                                                                        |
|--------------|---------|------------------------------------------------------------------------------|
| formaldehyde | Human   | Some positive data exist, but the data are not sufficient for classification |

**Germ Cell Mutagenicity**

| Name                                                                  | Route    | Value                                                                        |
|-----------------------------------------------------------------------|----------|------------------------------------------------------------------------------|
| acetone                                                               | In vivo  | Not mutagenic                                                                |
| acetone                                                               | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| salicylic acid                                                        | In Vitro | Not mutagenic                                                                |
| salicylic acid                                                        | In vivo  | Not mutagenic                                                                |
| zinc oxide                                                            | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| zinc oxide                                                            | In vivo  | Some positive data exist, but the data are not sufficient for classification |
| phenol                                                                | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| phenol                                                                | In vivo  | Some positive data exist, but the data are not sufficient for classification |
| 4-tert-butylphenol                                                    | In Vitro | Not mutagenic                                                                |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | In Vitro | Not mutagenic                                                                |
| o-cresol                                                              | In vivo  | Not mutagenic                                                                |
| o-cresol                                                              | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| formaldehyde                                                          | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| formaldehyde                                                          | In vivo  | Mutagenic                                                                    |

**Carcinogenicity**

| Name    | Route          | Species         | Value            |
|---------|----------------|-----------------|------------------|
| acetone | Not specified. | Multiple animal | Not carcinogenic |

**3M™ Adhesive 1099**

|                    |                | species                 |                                                                              |
|--------------------|----------------|-------------------------|------------------------------------------------------------------------------|
| phenol             | Dermal         | Mouse                   | Some positive data exist, but the data are not sufficient for classification |
| phenol             | Ingestion      | Rat                     | Some positive data exist, but the data are not sufficient for classification |
| 4-tert-butylphenol | Ingestion      | Multiple animal species | Some positive data exist, but the data are not sufficient for classification |
| o-cresol           | Dermal         | Mouse                   | Some positive data exist, but the data are not sufficient for classification |
| o-cresol           | Ingestion      | Mouse                   | Some positive data exist, but the data are not sufficient for classification |
| formaldehyde       | Not specified. | Human and animal        | Carcinogenic.                                                                |

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

| Name                                                                  | Route      | Value                                              | Species                 | Test result           | Exposure Duration            |
|-----------------------------------------------------------------------|------------|----------------------------------------------------|-------------------------|-----------------------|------------------------------|
| acetone                                                               | Ingestion  | Not classified for male reproduction               | Rat                     | NOAEL 1,700 mg/kg/day | 13 weeks                     |
| acetone                                                               | Inhalation | Not classified for development                     | Rat                     | NOAEL 5.2 mg/l        | during organogenesis         |
| salicylic acid                                                        | Ingestion  | Toxic to development                               | Rat                     | NOAEL 75 mg/kg/day    | during organogenesis         |
| zinc oxide                                                            | Ingestion  | Not classified for reproduction and/or development | Multiple animal species | NOAEL 125 mg/kg/day   | premating & during gestation |
| phenol                                                                | Ingestion  | Not classified for female reproduction             | Rat                     | NOAEL 321 mg/kg/day   | 2 generation                 |
| phenol                                                                | Ingestion  | Not classified for male reproduction               | Rat                     | NOAEL 321 mg/kg/day   | 2 generation                 |
| phenol                                                                | Ingestion  | Not classified for development                     | Rat                     | NOAEL 120 mg/kg/day   | during organogenesis         |
| 4-tert-butylphenol                                                    | Ingestion  | Not classified for male reproduction               | Rat                     | NOAEL 600 mg/kg/day   | 2 generation                 |
| 4-tert-butylphenol                                                    | Ingestion  | Not classified for development                     | Rat                     | NOAEL 70 mg/kg/day    | 2 generation                 |
| 4-tert-butylphenol                                                    | Ingestion  | Toxic to female reproduction                       | Rat                     | NOAEL 200 mg/kg/day   | 2 generation                 |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | Ingestion  | Not classified for male reproduction               | Rat                     | NOAEL 54 mg/kg/day    | 2 generation                 |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | Ingestion  | Not classified for development                     | Rat                     | NOAEL 18 mg/kg/day    | 2 generation                 |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | Ingestion  | Toxic to female reproduction                       | Rat                     | NOAEL 54 mg/kg/day    | 2 generation                 |
| o-cresol                                                              | Ingestion  | Not classified for female reproduction             | Rat                     | NOAEL 450 mg/kg/day   | 2 generation                 |
| o-cresol                                                              | Ingestion  | Not classified for male reproduction               | Rat                     | NOAEL 450 mg/kg/day   | 2 generation                 |
| o-cresol                                                              | Ingestion  | Not classified for development                     | Rat                     | NOAEL 175 mg/kg/day   | 2 generation                 |
| formaldehyde                                                          | Ingestion  | Not classified for male reproduction               | Rat                     | NOAEL 100 mg/kg       | not applicable               |
| formaldehyde                                                          | Inhalation | Not classified for development                     | Rat                     | NOAEL 10 ppm          | during gestation             |

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

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|------|-------|-----------------|-------|---------|-------------|-------------------|
|------|-------|-----------------|-------|---------|-------------|-------------------|

**3M™ Adhesive 1099**

|                                                                       |            |                                                |                                                                              |                         |                     |                        |
|-----------------------------------------------------------------------|------------|------------------------------------------------|------------------------------------------------------------------------------|-------------------------|---------------------|------------------------|
| acetone                                                               | Inhalation | central nervous system depression              | May cause drowsiness or dizziness                                            | Human                   | NOAEL Not available |                        |
| acetone                                                               | Inhalation | respiratory irritation                         | Some positive data exist, but the data are not sufficient for classification | Human                   | NOAEL Not available |                        |
| acetone                                                               | Inhalation | immune system                                  | Not classified                                                               | Human                   | NOAEL 1.19 mg/l     | 6 hours                |
| acetone                                                               | Inhalation | liver                                          | Not classified                                                               | Guinea pig              | NOAEL Not available |                        |
| acetone                                                               | Ingestion  | central nervous system depression              | May cause drowsiness or dizziness                                            | Human                   | NOAEL Not available | poisoning and/or abuse |
| phenol                                                                | Dermal     | hematopoietic system                           | Causes damage to organs                                                      | Rat                     | LOAEL 108 mg/kg     | not available          |
| phenol                                                                | Dermal     | heart   nervous system   kidney and/or bladder | Causes damage to organs                                                      | Rat                     | LOAEL 107 mg/kg     | 24 hours               |
| phenol                                                                | Dermal     | liver                                          | Not classified                                                               | Human                   | NOAEL Not available | not available          |
| phenol                                                                | Inhalation | respiratory irritation                         | May cause respiratory irritation                                             | Multiple animal species | NOAEL Not available | not available          |
| phenol                                                                | Ingestion  | kidney and/or bladder                          | Causes damage to organs                                                      | Rat                     | NOAEL 120 mg/kg/day | not applicable         |
| phenol                                                                | Ingestion  | respiratory system                             | Causes damage to organs                                                      | Human                   | NOAEL not available | poisoning and/or abuse |
| phenol                                                                | Ingestion  | endocrine system   liver                       | Not classified                                                               | Rat                     | NOAEL 224 mg/kg     | not applicable         |
| phenol                                                                | Ingestion  | heart                                          | Not classified                                                               | Human                   | NOAEL Not available | poisoning and/or abuse |
| 4-tert-butylphenol                                                    | Inhalation | respiratory irritation                         | May cause respiratory irritation                                             | Rat                     | LOAEL 5.6 mg/l      | 4 hours                |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | Inhalation | respiratory irritation                         | Some positive data exist, but the data are not sufficient for classification | similar health hazards  | NOAEL not available |                        |
| o-cresol                                                              | Inhalation | respiratory irritation                         | Some positive data exist, but the data are not sufficient for classification | Human                   | NOAEL Not available |                        |
| o-cresol                                                              | Ingestion  | central nervous system depression              | May cause drowsiness or dizziness                                            | Rat                     | LOAEL 68 mg/kg      |                        |
| formaldehyde                                                          | Inhalation | respiratory system                             | Causes damage to organs                                                      | Rat                     | LOAEL 128 ppm       | 6 hours                |
| formaldehyde                                                          | Inhalation | respiratory irritation                         | Some positive data exist, but the data are not sufficient for classification | Human                   | NOAEL Not available |                        |

**Specific Target Organ Toxicity - repeated exposure**

| Name    | Route      | Target Organ(s)       | Value          | Species    | Test result           | Exposure Duration |
|---------|------------|-----------------------|----------------|------------|-----------------------|-------------------|
| acetone | Dermal     | eyes                  | Not classified | Guinea pig | NOAEL Not available   | 3 weeks           |
| acetone | Inhalation | hematopoietic system  | Not classified | Human      | NOAEL 3 mg/l          | 6 weeks           |
| acetone | Inhalation | immune system         | Not classified | Human      | NOAEL 1.19 mg/l       | 6 days            |
| acetone | Inhalation | kidney and/or bladder | Not classified | Guinea pig | NOAEL 119 mg/l        | not available     |
| acetone | Inhalation | heart   liver         | Not classified | Rat        | NOAEL 45 mg/l         | 8 weeks           |
| acetone | Ingestion  | kidney and/or bladder | Not classified | Rat        | NOAEL 900 mg/kg/day   | 13 weeks          |
| acetone | Ingestion  | heart                 | Not classified | Rat        | NOAEL 2,500 mg/kg/day | 13 weeks          |
| acetone | Ingestion  | hematopoietic system  | Not classified | Rat        | NOAEL 200 mg/kg/day   | 13 weeks          |
| acetone | Ingestion  | liver                 | Not classified | Mouse      | NOAEL 3,896           | 14 days           |

**3M™ Adhesive 1099**

|                                                                       |            |                                                                                                                                                                      |                                                                              |                         | mg/kg/day              |                       |
|-----------------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------|------------------------|-----------------------|
| acetone                                                               | Ingestion  | eyes                                                                                                                                                                 | Not classified                                                               | Rat                     | NOAEL 3,400 mg/kg/day  | 13 weeks              |
| acetone                                                               | Ingestion  | respiratory system                                                                                                                                                   | Not classified                                                               | Rat                     | NOAEL 2,500 mg/kg/day  | 13 weeks              |
| acetone                                                               | Ingestion  | muscles                                                                                                                                                              | Not classified                                                               | Rat                     | NOAEL 2,500 mg/kg      | 13 weeks              |
| acetone                                                               | Ingestion  | skin   bone, teeth, nails, and/or hair                                                                                                                               | Not classified                                                               | Mouse                   | NOAEL 11,298 mg/kg/day | 13 weeks              |
| salicylic acid                                                        | Ingestion  | liver                                                                                                                                                                | Not classified                                                               | Rat                     | NOAEL 500 mg/kg/day    | 3 days                |
| zinc oxide                                                            | Ingestion  | nervous system                                                                                                                                                       | Not classified                                                               | Rat                     | NOAEL 600 mg/kg/day    | 10 days               |
| zinc oxide                                                            | Ingestion  | endocrine system   hematopoietic system   kidney and/or bladder                                                                                                      | Not classified                                                               | Other                   | NOAEL 500 mg/kg/day    | 6 months              |
| phenol                                                                | Dermal     | nervous system                                                                                                                                                       | May cause damage to organs though prolonged or repeated exposure             | Rabbit                  | LOAEL 260 mg/kg/day    | 18 days               |
| phenol                                                                | Inhalation | heart   liver   kidney and/or bladder   respiratory system                                                                                                           | Causes damage to organs through prolonged or repeated exposure               | Guinea pig              | LOAEL 0.1 mg/l         | 41 days               |
| phenol                                                                | Inhalation | nervous system                                                                                                                                                       | May cause damage to organs though prolonged or repeated exposure             | Multiple animal species | LOAEL 0.1 mg/l         | 14 days               |
| phenol                                                                | Inhalation | hematopoietic system                                                                                                                                                 | Not classified                                                               | Human                   | NOAEL Not available    | occupational exposure |
| phenol                                                                | Inhalation | immune system                                                                                                                                                        | Not classified                                                               | Rat                     | NOAEL 0.1 mg/l         | 2 weeks               |
| phenol                                                                | Ingestion  | kidney and/or bladder                                                                                                                                                | Causes damage to organs through prolonged or repeated exposure               | Rat                     | NOAEL 12 mg/kg/day     | 14 days               |
| phenol                                                                | Ingestion  | hematopoietic system                                                                                                                                                 | Causes damage to organs through prolonged or repeated exposure               | Mouse                   | LOAEL 1.8 mg/kg/day    | 28 days               |
| phenol                                                                | Ingestion  | nervous system                                                                                                                                                       | May cause damage to organs though prolonged or repeated exposure             | Rat                     | LOAEL 308 mg/kg/day    | 13 weeks              |
| phenol                                                                | Ingestion  | liver                                                                                                                                                                | Not classified                                                               | Rat                     | NOAEL 40 mg/kg/day     | 14 days               |
| phenol                                                                | Ingestion  | respiratory system                                                                                                                                                   | Not classified                                                               | Rat                     | LOAEL 40 mg/kg/day     | 14 days               |
| phenol                                                                | Ingestion  | immune system                                                                                                                                                        | Not classified                                                               | Mouse                   | NOAEL 1.8 mg/kg/day    | 28 days               |
| phenol                                                                | Ingestion  | endocrine system                                                                                                                                                     | Not classified                                                               | Rat                     | NOAEL 120 mg/kg/day    | 14 days               |
| phenol                                                                | Ingestion  | skin   bone, teeth, nails, and/or hair                                                                                                                               | Not classified                                                               | Multiple animal species | NOAEL 1,204 mg/kg/day  | 103 weeks             |
| 4-tert-butylphenol                                                    | Ingestion  | endocrine system   liver   kidney and/or bladder                                                                                                                     | Not classified                                                               | Rat                     | NOAEL 600 mg/kg/day    | 2 generation          |
| 4-tert-butylphenol                                                    | Ingestion  | blood                                                                                                                                                                | Not classified                                                               | Rat                     | NOAEL 200 mg/kg        | 6 weeks               |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | Ingestion  | nervous system                                                                                                                                                       | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 54 mg/kg/day     | 98 days               |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | Ingestion  | endocrine system   liver   kidney and/or bladder   heart   gastrointestinal tract   bone, teeth, nails, and/or hair   hematopoietic system   immune system   muscles | Not classified                                                               | Rat                     | NOAEL 225 mg/kg/day    | 28 days               |

**3M™ Adhesive 1099**

|              |            |                                                                                        |                                                                |       |                       |           |
|--------------|------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------|-------|-----------------------|-----------|
|              |            | eyes   respiratory system                                                              |                                                                |       |                       |           |
| o-cresol     | Ingestion  | nervous system                                                                         | Not classified                                                 | Rat   | NOAEL 600 mg/kg/day   | 90 days   |
| o-cresol     | Ingestion  | hematopoietic system   liver   immune system   kidney and/or bladder                   | Not classified                                                 | Rat   | NOAEL 2,024 mg/kg/day | 90 days   |
| formaldehyde | Dermal     | respiratory system                                                                     | Not classified                                                 | Mouse | NOAEL 80 mg/kg/day    | 60 weeks  |
| formaldehyde | Inhalation | respiratory system                                                                     | Causes damage to organs through prolonged or repeated exposure | Rat   | NOAEL 0.3 ppm         | 28 months |
| formaldehyde | Inhalation | liver                                                                                  | Not classified                                                 | Rat   | NOAEL 20 ppm          | 13 weeks  |
| formaldehyde | Inhalation | hematopoietic system                                                                   | Not classified                                                 | Mouse | NOAEL 15 ppm          | 3 weeks   |
| formaldehyde | Inhalation | nervous system                                                                         | Not classified                                                 | Mouse | NOAEL 10 ppm          | 13 weeks  |
| formaldehyde | Inhalation | endocrine system   immune system   muscles   kidney and/or bladder                     | Not classified                                                 | Rat   | NOAEL 15 ppm          | 28 months |
| formaldehyde | Inhalation | gastrointestinal tract                                                                 | Not classified                                                 | Rat   | NOAEL 15 ppm          | 2 years   |
| formaldehyde | Inhalation | eyes   vascular system                                                                 | Not classified                                                 | Rat   | NOAEL 14.3 ppm        | 2 years   |
| formaldehyde | Inhalation | heart                                                                                  | Not classified                                                 | Mouse | NOAEL 14.3 ppm        | 2 years   |
| formaldehyde | Ingestion  | liver                                                                                  | Not classified                                                 | Rat   | NOAEL 300 mg/kg/day   | 2 years   |
| formaldehyde | Ingestion  | immune system                                                                          | Not classified                                                 | Rat   | NOAEL 20 mg/kg/day    | 4 weeks   |
| formaldehyde | Ingestion  | kidney and/or bladder                                                                  | Not classified                                                 | Rat   | NOAEL 15 mg/kg/day    | 24 months |
| formaldehyde | Ingestion  | nervous system                                                                         | Not classified                                                 | Rat   | NOAEL 109 mg/kg/day   | 2 years   |
| formaldehyde | Ingestion  | heart   endocrine system   hematopoietic system   respiratory system   vascular system | Not classified                                                 | Rat   | NOAEL 300 mg/kg/day   | 2 years   |
| formaldehyde | Ingestion  | skin   muscles   eyes                                                                  | Not classified                                                 | Rat   | NOAEL 109 mg/kg/day   | 2 years   |

**Aspiration Hazard**

For the component/components, either no data is currently available or the data is not sufficient for classification.

**Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.**

**11.2. Information on other hazards**

This material does not contain any substances that are assessed to be an endocrine disruptor for human health.

**SECTION 12: Ecological information**

The information below may not agree with the material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

**12.1. Toxicity**

**3M™ Adhesive 1099**

No product test data available.

| Material                                                              | CAS #        | Organism                      | Type                                                  | Exposure | Test endpoint | Test result |
|-----------------------------------------------------------------------|--------------|-------------------------------|-------------------------------------------------------|----------|---------------|-------------|
| acetone                                                               | 67-64-1      | Algae or other aquatic plants | Experimental                                          | 96 hours | EC50          | 11,493 mg/l |
| acetone                                                               | 67-64-1      | Invertebrate                  | Experimental                                          | 24 hours | LC50          | 2,100 mg/l  |
| acetone                                                               | 67-64-1      | Rainbow trout                 | Experimental                                          | 96 hours | LC50          | 5,540 mg/l  |
| acetone                                                               | 67-64-1      | Water flea                    | Experimental                                          | 21 days  | NOEC          | 1,000 mg/l  |
| acetone                                                               | 67-64-1      | Bacteria                      | Experimental                                          | 16 hours | NOEC          | 1,700 mg/l  |
| acetone                                                               | 67-64-1      | Redworm                       | Experimental                                          | 48 hours | LC50          | >100        |
| Acrylonitrile - butadiene polymer                                     | 9003-18-3    | N/A                           | Data not available or insufficient for classification | N/A      | N/A           | N/A         |
| Phenol-formaldehyde resin                                             | Trade Secret | N/A                           | Data not available or insufficient for classification | N/A      | N/A           | N/A         |
| Phenolic resin                                                        | Trade Secret | N/A                           | Data not available or insufficient for classification | N/A      | N/A           | N/A         |
| salicylic acid                                                        | 69-72-7      | Green algae                   | Experimental                                          | 72 hours | EC50          | >100 mg/l   |
| salicylic acid                                                        | 69-72-7      | Medaka                        | Experimental                                          | 96 hours | LC50          | >100 mg/l   |
| salicylic acid                                                        | 69-72-7      | Water flea                    | Experimental                                          | 48 hours | EC50          | 870 mg/l    |
| salicylic acid                                                        | 69-72-7      | Water flea                    | Experimental                                          | 21 days  | NOEC          | 10 mg/l     |
| salicylic acid                                                        | 69-72-7      | Activated sludge              | Experimental                                          | 3 hours  | EC50          | >3,200      |
| salicylic acid                                                        | 69-72-7      | Bacteria                      | Experimental                                          | 18 hours | EC10          | 465         |
| zinc oxide                                                            | 1314-13-2    | Activated sludge              | Estimated                                             | 3 hours  | EC50          | 6.5 mg/l    |
| zinc oxide                                                            | 1314-13-2    | Green algae                   | Estimated                                             | 72 hours | EC50          | 0.052 mg/l  |
| zinc oxide                                                            | 1314-13-2    | Rainbow trout                 | Estimated                                             | 96 hours | LC50          | 0.21 mg/l   |
| zinc oxide                                                            | 1314-13-2    | Water flea                    | Estimated                                             | 48 hours | EC50          | 0.07 mg/l   |
| zinc oxide                                                            | 1314-13-2    | Green algae                   | Estimated                                             | 72 hours | NOEC          | 0.006 mg/l  |
| zinc oxide                                                            | 1314-13-2    | Water flea                    | Estimated                                             | 7 days   | NOEC          | 0.02 mg/l   |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | 68411-46-1   | Water flea                    | Experimental                                          | 24 hours | EC50          | 0.82 mg/l   |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | 68411-46-1   | Zebra Fish                    | Experimental                                          | 96 hours | LC50          | >47.05 mg/l |
| 4-tert-butylphenol                                                    | 98-54-4      | Ciliated protozoa             | Experimental                                          | 60 hours | IC50          | 18.4 mg/l   |
| 4-tert-butylphenol                                                    | 98-54-4      | Green algae                   | Experimental                                          | 72 hours | ErC50         | 14 mg/l     |
| 4-tert-butylphenol                                                    | 98-54-4      | Invertebrate                  | Experimental                                          | 96 hours | LC50          | 1.9 mg/l    |

**3M™ Adhesive 1099**

|                    |          |                               |              |          |       |            |
|--------------------|----------|-------------------------------|--------------|----------|-------|------------|
| 4-tert-butylphenol | 98-54-4  | Medaka                        | Experimental | 96 hours | LC50  | 5.1 mg/l   |
| 4-tert-butylphenol | 98-54-4  | Water flea                    | Experimental | 48 hours | EC50  | 3.9 mg/l   |
| 4-tert-butylphenol | 98-54-4  | Fathead minnow                | Experimental | 128 days | NOEC  | 0.01 mg/l  |
| 4-tert-butylphenol | 98-54-4  | Green algae                   | Experimental | 72 hours | NOEC  | 0.32 mg/l  |
| 4-tert-butylphenol | 98-54-4  | Water flea                    | Experimental | 21 days  | NOEC  | 0.73 mg/l  |
| phenol             | 108-95-2 | Bacteria                      | Experimental | 24 hours | IC50  | 21 mg/l    |
| phenol             | 108-95-2 | Green algae                   | Experimental | 96 hours | EC50  | 61.1 mg/l  |
| phenol             | 108-95-2 | Rainbow trout                 | Experimental | 96 hours | LC50  | 8.9 mg/l   |
| phenol             | 108-95-2 | Water flea                    | Experimental | 48 hours | EC50  | 3.1 mg/l   |
| phenol             | 108-95-2 | Fish                          | Experimental | 60 days  | NOEC  | 0.077 mg/l |
| phenol             | 108-95-2 | Water flea                    | Experimental | 16 days  | NOEC  | 0.16 mg/l  |
| o-cresol           | 95-48-7  | Activated sludge              | Experimental | 5 days   | EC50  | 940 mg/l   |
| o-cresol           | 95-48-7  | Bacteria                      | Experimental | 16 hours | NOEC  | 33 mg/l    |
| o-cresol           | 95-48-7  | Brown trout                   | Experimental | 96 hours | LC50  | 6.2 mg/l   |
| o-cresol           | 95-48-7  | Green algae                   | Experimental | 96 hours | EC50  | 65 mg/l    |
| o-cresol           | 95-48-7  | Water flea                    | Experimental | 48 hours | LC50  | 9.6 mg/l   |
| o-cresol           | 95-48-7  | Fathead minnow                | Estimated    | 32 days  | NOEC  | 1.35 mg/l  |
| o-cresol           | 95-48-7  | Water flea                    | Estimated    | 21 days  | NOEC  | 1 mg/l     |
| o-cresol           | 95-48-7  | Algae or other aquatic plants | Experimental | 96 hours | NOEC  | 40 mg/l    |
| formaldehyde       | 50-00-0  | Green algae                   | Experimental | 72 hours | ErC50 | 4.89 mg/l  |
| formaldehyde       | 50-00-0  | Striped bass                  | Experimental | 96 hours | LC50  | 6.7 mg/l   |
| formaldehyde       | 50-00-0  | Water flea                    | Experimental | 48 hours | EC50  | 5.8 mg/l   |
| formaldehyde       | 50-00-0  | Medaka                        | Experimental | 28 days  | NOEC  | >=48 mg/l  |
| formaldehyde       | 50-00-0  | Water flea                    | Experimental | 21 days  | NOEC  | >=6.4 mg/l |
| formaldehyde       | 50-00-0  | Activated sludge              | Experimental | 3 hours  | EC50  | 19         |

**12.2. Persistence and degradability**

| Material                          | CAS Nbr      | Test type                     | Duration | Study Type                    | Test result                      | Protocol                       |
|-----------------------------------|--------------|-------------------------------|----------|-------------------------------|----------------------------------|--------------------------------|
| acetone                           | 67-64-1      | Experimental Biodegradation   | 28 days  | BOD                           | 78 %BOD/ThOD                     | OECD 301D - Closed bottle test |
| acetone                           | 67-64-1      | Experimental Photolysis       |          | Photolytic half-life (in air) | 147 days (t 1/2)                 |                                |
| Acrylonitrile - butadiene polymer | 9003-18-3    | Data not availbl-insufficient | N/A      | N/A                           | N/A                              | N/A                            |
| Phenol-formaldehyde resin         | Trade Secret | Experimental Biodegradation   | 28 days  | CO2 evolution                 | 0 %CO2 evolution/THCO2 evolution |                                |
| Phenolic resin                    | Trade Secret | Data not availbl-insufficient | N/A      | N/A                           | N/A                              | N/A                            |
| salicylic acid                    | 69-72-7      | Experimental                  | 14 days  | BOD                           | 88.1 %BOD/ThOD                   | OECD 301C - MITI test (I)      |

**3M™ Adhesive 1099**

|                                                                       |            |                                          |           |                                |                                    |                                   |
|-----------------------------------------------------------------------|------------|------------------------------------------|-----------|--------------------------------|------------------------------------|-----------------------------------|
|                                                                       |            | Biodegradation                           |           |                                |                                    |                                   |
| zinc oxide                                                            | 1314-13-2  | Data not availbl-insufficient            | N/A       | N/A                            | N/A                                | N/A                               |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | 68411-46-1 | Experimental Biodegradation              | 28 days   | CO2 evolution                  | <=1 %CO2 evolution/THCO2 evolution | OECD 301B - Modified sturm or CO2 |
| 4-tert-butylphenol                                                    | 98-54-4    | Experimental Biodegradation              | 28 days   | Dissolv. Organic Carbon Deplet | 98 %removal of DOC                 | EC C.4.A. DOC Die-Away Test       |
| phenol                                                                | 108-95-2   | Experimental Biodegradation              | 100 hours | BOD                            | 62 %BOD/ThOD                       | OECD 301C - MITI test (I)         |
| o-cresol                                                              | 95-48-7    | Experimental Aquatic Inherent Biodegrad. |           | Dissolv. Organic Carbon Deplet | 100 %removal of DOC                | OECD 302B Zahn-Wellens/EVPA       |
| o-cresol                                                              | 95-48-7    | Experimental Biodegradation              | 20 days   | BOD                            | 86 %BOD/ThOD                       | similar to OECD 301D              |
| formaldehyde                                                          | 50-00-0    | Experimental Biodegradation              | 28 days   | Dissolv. Organic Carbon Deplet | 99 %removal of DOC                 | OECD 301A - DOC Die Away Test     |
| formaldehyde                                                          | 50-00-0    | Experimental Biodegradation              | 160 days  | BOD                            | 99.5 %BOD/COD                      | OECD 303A - Simulated Aerobic     |

**12.3 : Bioaccumulative potential**

| Material                                                              | Cas No.      | Test type                                             | Duration | Study Type             | Test result | Protocol                     |
|-----------------------------------------------------------------------|--------------|-------------------------------------------------------|----------|------------------------|-------------|------------------------------|
| acetone                                                               | 67-64-1      | Experimental BCF - Other                              |          | Bioaccumulation factor | 0.65        |                              |
| acetone                                                               | 67-64-1      | Experimental Bioconcentration                         |          | Log Kow                | -0.24       |                              |
| Acrylonitrile - butadiene polymer                                     | 9003-18-3    | Data not available or insufficient for classification | N/A      | N/A                    | N/A         | N/A                          |
| Phenol-formaldehyde resin                                             | Trade Secret | Estimated Bioconcentration                            |          | Bioaccumulation factor | 7.4         |                              |
| Phenolic resin                                                        | Trade Secret | Data not available or insufficient for classification | N/A      | N/A                    | N/A         | N/A                          |
| salicylic acid                                                        | 69-72-7      | Experimental Bioconcentration                         |          | Log Kow                | 2.26        |                              |
| zinc oxide                                                            | 1314-13-2    | Experimental BCF - Fish                               | 56 days  | Bioaccumulation factor | ≤217        | OECD305-Bioconcentration     |
| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene | 68411-46-1   | Analogous Compound BCF - Fish                         | 42 days  | Bioaccumulation factor | 1730        |                              |
| 4-tert-butylphenol                                                    | 98-54-4      | Experimental BCF - Fish                               | 56 days  | Bioaccumulation factor | 88          | OECD305-Bioconcentration     |
| 4-tert-butylphenol                                                    | 98-54-4      | Experimental Bioconcentration                         |          | Log Kow                | 3           | OECD 117 log Kow HPLC method |
| phenol                                                                | 108-95-2     | Experimental Bioconcentration                         |          | Log Kow                | 1.47        |                              |
| o-cresol                                                              | 95-48-7      | Experimental BCF - Fish                               |          | Bioaccumulation factor | 10.7        | OECD305-Bioconcentration     |
| o-cresol                                                              | 95-48-7      | Experimental Bioconcentration                         |          | Log Kow                | 1.95        |                              |
| formaldehyde                                                          | 50-00-0      | Experimental Bioconcentration                         |          | Log Kow                | 0.35        |                              |

**12.4. Mobility in soil**

| Material       | Cas No. | Test type                | Study Type | Test result | Protocol  |
|----------------|---------|--------------------------|------------|-------------|-----------|
| acetone        | 67-64-1 | Modeled Mobility in Soil | Koc        | 9.7 l/kg    | Episuite™ |
| salicylic acid | 69-72-7 | Modeled Mobility         | Koc        | <1 l/kg     | Episuite™ |

**3M™ Adhesive 1099**

|                    |         |                               |     |           |           |
|--------------------|---------|-------------------------------|-----|-----------|-----------|
|                    |         | in Soil                       |     |           |           |
| 4-tert-butylphenol | 98-54-4 | Modeled Mobility in Soil      | Koc | 840 l/kg  | Episuite™ |
| o-cresol           | 95-48-7 | Experimental Mobility in Soil | Koc | 22 l/kg   |           |
| formaldehyde       | 50-00-0 | Estimated Mobility in Soil    | Koc | 15.9 l/kg |           |

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

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

**12.6. Other adverse effects**

| Ingredient         | CAS Nbr | Environmental endocrine disruptor information                                                                                                                                  |
|--------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4-tert-butylphenol | 98-54-4 | This chemical has been determined to cause long-term effects in fish, including feminization of gonadal ducts in male fish and elevated levels of vitellogenin in female fish. |

**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. 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**

|                                        | Ground Transport (ADR)    | Air Transport (IATA) | Marine Transport (IMDG) |
|----------------------------------------|---------------------------|----------------------|-------------------------|
| <b>14.1 UN number</b>                  | UN1133                    | UN1133               | UN1133                  |
| <b>14.2 UN proper shipping name</b>    | ADHESIVES                 | ADHESIVES            | ADHESIVES (ZINC OXIDE)  |
| <b>14.3 Transport hazard class(es)</b> | 3                         | 3                    | 3                       |
| <b>14.4 Packing group</b>              | II                        | II                   | II                      |
| <b>14.5 Environmental</b>              | Environmentally Hazardous | Not applicable       | Marine Pollutant        |

| hazards                                                                          |                                                                        |                                                                        |                                                                        |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|
| <b>14.6 Special precautions for user</b>                                         | Please refer to the other sections of the SDS for further information. | Please refer to the other sections of the SDS for further information. | Please refer to the other sections of the SDS for further information. |
| <b>14.7 Transport in bulk according to Annex II of Marpol 73/78 and IBC Code</b> | No data available.                                                     | No data available.                                                     | No data available.                                                     |
| <b>Control Temperature</b>                                                       | No data available.                                                     | No data available.                                                     | No data available.                                                     |
| <b>Emergency Temperature</b>                                                     | No data available.                                                     | No data available.                                                     | No data available.                                                     |
| <b>ADR Classification Code</b>                                                   | F1                                                                     | Not applicable.                                                        | Not applicable.                                                        |
| <b>IMDG Segregation Code</b>                                                     | Not applicable.                                                        | Not applicable.                                                        | NONE                                                                   |

Please contact the address or phone number listed on the first page of the SDS for additional information on the transport/shipment of the material by rail (RID) or inland waterways (ADN).

## SECTION 15: Regulatory information

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

#### Carcinogenicity Ingredient

#### CAS Nbr

#### Classification

#### Regulation

formaldehyde

50-00-0

Carc. 1B

The retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain, UK Mandatory Classification and Labelling list  
International Agency for Research on Cancer  
International Agency for Research on Cancer

formaldehyde

50-00-0

Grp. 1: Carcinogenic to humans

phenol

108-95-2

Gr. 3: Not classifiable

#### Authorisation status under UK REACH:

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

#### Ingredient

#### CAS Nbr

4-tert-butylphenol

98-54-4

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

**Regulation UK regulation 2023/63 (marketing and use of explosive precursors and poisons)**

This product contains a reportable substance according to UK legislation 1972/66: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point. Please see UK Regulation 2023/63 for further details.

**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. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

**COMAH Regulation, SI 2015/483**

Seveso hazard categories, Annex 1, Part 1

| Hazard Categories      | Qualifying quantity (tonnes) for the application of |                         |
|------------------------|-----------------------------------------------------|-------------------------|
|                        | Lower-tier requirements                             | Upper-tier requirements |
| P5c FLAMMABLE LIQUIDS* | 5000                                                | 50000                   |

\*If maintained at a temperature above its boiling point or if particular processing conditions, such as high pressure or high temperature, may create major-accident hazards, P5a or P5b FLAMMABLE LIQUIDS may apply  
Seveso named dangerous substances, Annex 1, Part 2

| Dangerous Substances | Identifier(s) | Qualifying quantity (tonnes) for the application of |                         |
|----------------------|---------------|-----------------------------------------------------|-------------------------|
|                      |               | Lower-tier requirements                             | Upper-tier requirements |
| acetone              | 67-64-1       | 10                                                  | 50                      |
| formaldehyde         | 50-00-0       | 5                                                   | 50                      |
| phenol               | 108-95-2      | 50                                                  | 200                     |
| 4-tert-butylphenol   | 98-54-4       | 100                                                 | 200                     |
| zinc oxide           | 1314-13-2     | 100                                                 | 200                     |

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

No chemicals listed

**15.2. Chemical Safety Assessment**

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

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

|        |                                                       |
|--------|-------------------------------------------------------|
| EUH066 | Repeated exposure may cause skin dryness or cracking. |
| H225   | Highly flammable liquid and vapour.                   |
| H301   | Toxic if swallowed.                                   |
| H302   | Harmful if swallowed.                                 |
| H311   | Toxic 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.                                                  |
| H331  | Toxic if inhaled.                                                  |
| H335  | May cause respiratory irritation.                                  |
| H336  | May cause drowsiness or dizziness.                                 |
| H341  | Suspected of causing genetic defects.                              |
| H350  | May cause cancer.                                                  |
| H361d | Suspected of damaging the unborn child.                            |
| H361f | Suspected of damaging fertility.                                   |
| 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:**

No revision information

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

**3M SDSs for Great Britain are available at [www.3M.com/uk](http://www.3M.com/uk)**

For Northern Ireland documents, please contact your 3M representative to obtain a copy.