# Safety Data Sheet

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| | | | |
|---|---|---|---|
| **Document group:** | 41-8669-8 | **Version number:** | 2.02 |
| **Revision date:** | 12/06/2025 | **Supersedes date:** | 27/05/2024 |
| **Transportation version number:** | | | |

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

## IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**1.1. Product identifier**
3M Scotchcast Electrical Insulating Resin 4GS - 41-8669-8 Kit

**Product Identification Numbers**

| | | | | |
|---|---|---|---|---|
| UU-0110-2650-5 | UU-0110-2711-5 | UU-0110-2712-3 | UU-0110-2714-9 | UU-0110-2828-7 |
| UU-0110-2831-1 | UU-0110-2832-9 | UU-0110-2841-0 | | |
| 7100229879 | 7100229841 | 7100229842 | 7100229874 | 7100229873 |
| 7100229425 | 7100229877 | 7100229863 | | |

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

**Identified uses**
Resin

**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:** ner-productstewardship@mmm.com

**Website:** www.3M.com/uk

**1.4. Emergency telephone number**
+44 (0)1344 858 000

**This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet for each of these components is included. Please do not separate the component Safety Data Sheets from this cover page. The document numbers of the MSDSs for components of this product are:**

38-7385-8, 38-7384-1

## TRANSPORTATION INFORMATION

Refer to section 14 of the kit components for transport information.

# KIT LABEL

**2.1. Classification of the substance or mixture**
**The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain**

**CLASSIFICATION:**
Skin Corrosion/Irritation, Category 1B - Skin Corr. 1B; H314
Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318
Skin Sensitization, Category 1 - Skin Sens. 1; H317
Hazardous to the Aquatic Environment (Acute), Category 1 - Aquatic Acute 1; H400
Hazardous to the Aquatic Environment (Chronic), Category 1 - Aquatic Chronic 1; H410

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**
GHS05 (Corrosion) |GHS07 (Exclamation mark) |GHS09 (Environment) |

**Pictograms**



**Contains:**
p-Toluenesulfonic acid; m-Xylene-.alpha.alpha'.-diamine; bis-[4-(2,3-epoxipropoxi)phenyl]propane; Cashew Nutshell Extract, Decarboxylated, Distilled; Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

**HAZARD STATEMENTS:**

| | |
|---|---|
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H410 | Very toxic to aquatic life with long lasting effects. |

**PRECAUTIONARY STATEMENTS**

**Prevention:**

| | |
|---|---|
| P260A | Do not breathe vapours. |
| P273 | Avoid release to the environment. |
| P280D | Wear protective gloves, protective clothing, and eye/face protection. |

**Response:**

| | |
|---|---|
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

P310 Immediately call a POISON CENTRE or doctor/physician.

Refer to Safety Data Sheet for component % unknown values (www.3M.com/msds).

**Revision information:**
Kit: Component document group number(s) information was modified.
Section 1: E-mail address information was modified.

# Safety Data Sheet

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| | | | |
|---|---|---|---|
| **Document group:** | 38-7384-1 | **Version number:** | 4.00 |
| **Revision date:** | 15/07/2026 | **Supersedes date:** | 27/10/2022 |

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 Scotchcast Electrical Insulating Resin 4 GS Part A

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

**Identified uses**
Resin

**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:** | ner-productstewardship@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:**
Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315
Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319
Skin Sensitization, Category 1 - Skin Sens. 1; H317
Hazardous to the Aquatic Environment (Acute), Category 1 - Aquatic Acute 1; H400
Hazardous to the Aquatic Environment (Chronic), Category 1 - Aquatic Chronic 1; H410

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**
WARNING.

**Symbols**
GHS07 (Exclamation mark) |GHS09 (Environment) |

**Pictograms**



| Ingredient | Identifier(s) | EC No. | % by Wt |
|---|---|---|---|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | 1675-54-3 | 216-823-5 | 40 - 60 |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | 9003-36-5 | 500-006-8 | 40 - 60 |

**HAZARD STATEMENTS:**

| | |
|---|---|
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H317 | May cause an allergic skin reaction. |
| H410 | Very toxic to aquatic life with long lasting effects. |

**PRECAUTIONARY STATEMENTS**

**Prevention:**

| | |
|---|---|
| P273 | Avoid release to the environment. |
| P280E | Wear protective gloves. |

**Response:**

| | |
|---|---|
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P333 + P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P391 | Collect spillage. |

**2.3. Other hazards**

None known.
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 |
|---|---|---|---|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | (CAS-No.) 1675-54-3<br>(EC-No.) 216-823-5 | 40 - 60 | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317<br>Aquatic Chronic 2, H411 |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | (CAS-No.) 9003-36-5<br>(EC-No.) 500-006-8 | 40 - 60 | Skin Irrit. 2, H315<br>Skin Sens. 1A, H317<br>Aquatic Chronic 2, H411 |

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 |
|---|---|---|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | (CAS-No.) 1675-54-3<br>(EC-No.) 216-823-5 | (C >= 5%) Skin Irrit. 2, H315<br>(C >= 5%) 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**
Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

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

**4.2. Most important symptoms and effects, both acute and delayed**
The most important symptoms and effects based on the GB CLP classification include:
Irritation to the skin (localized redness, swelling, itching, and dryness). Allergic skin reaction (redness, swelling, blistering, and itching). Serious irritation to the eyes (significant redness, swelling, pain, tearing, and impaired vision).

**4.3. Indication of any immediate medical attention and special treatment required**
Not applicable.

## SECTION 5: Fire-fighting measures

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

**5.2. Special hazards arising from the substance or mixture**
Closed containers exposed to heat from fire may build pressure and explode.

**Hazardous Decomposition or By-Products**

| Substance | Condition |
|---|---|
| Aldehydes. | During combustion. |
| Carbon monoxide | During combustion. |
| Carbon dioxide. | During combustion. |
| Toxic Vapour/Gas | During combustion. |

**5.3. Advice for fire-fighters**
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**
Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS. Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice.

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

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

**6.4. Reference to other sections**
Refer to Section 8 and Section 13 for more information

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling**
For industrial/occupational use only. Not for consumer sale or use. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

**7.2. Conditions for safe storage including any incompatibilities**
Store away from acids. Store away from strong bases. Store away from oxidising agents. Store away from amines.

**7.3. Specific end use(s)**
See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and

personal protection recommendations.

## SECTION 8: Exposure controls/personal protection

**8.1 Control parameters**

**Occupational exposure limits**
No occupational exposure limit values exist for any of the components listed in Section 3 of this Safety Data Sheet.

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

**8.2. Exposure controls**

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

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

**Eye/face protection**

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Safety glasses with side shields.
Indirect vented goggles.

*Applicable Norms/Standards*
Use eye protection conforming to EN 16321

**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:

| Material | Thickness (mm) | Breakthrough Time |
|---|---|---|
| Polymer laminate | No data available | No data available |

*Applicable Norms/Standards*
Use gloves tested to EN 374

If this product is used in a manner that presents a higher potential for exposure (e.g., spraying, high splash potential, etc.), then use of a protective apron may be necessary. See recommended glove material(s) for determining appropriate apron material(s). If a glove material is not available as an apron, polymer laminate is a suitable option.

**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
Half facepiece or full facepiece supplied-air respirator

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
Use a respirator conforming to EN 140 or EN 136: filter type A

## SECTION 9: Physical and chemical properties

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

| | |
|---|---|
| **Physical state** | Liquid. |
| **Colour** | Blue |
| **Odor** | Weak Odour |
| **Odour threshold** | *No data available.* |
| **Melting point/freezing point** | -15 - 5 ºC |
| **Boiling point/boiling range** | > 100 ºC |
| **Flammability** | Not applicable. |
| **Flammable Limits(LEL)** | *Not applicable.* |
| **Flammable Limits(UEL)** | *Not applicable.* |
| **Flash point** | 240 ºC [*Test Method:*Closed Cup] |
| **Autoignition temperature** | *No data available.* |
| **Decomposition temperature** | > 300 ºC |
| **pH** | *substance/mixture is non-polar/aprotic* |
| **Kinematic Viscosity** | 3,846 mm²/sec |
| **Water solubility** | Slight (less than 10%) |
| **Solubility- non-water** | *No data available.* |
| **Partition coefficient: n-octanol/water** | *No data available.* |
| **Vapour pressure** | < 1.3 Pa |
| **Density** | 1.17 kg/l |
| **Relative density** | 1.17 |
| **Relative Vapour Density** | *Not applicable.* |
| **Particle Characteristics** | *Not applicable.* |

**9.2. Other information**

**9.2.2 Other safety characteristics**

| | |
|---|---|
| **EU Volatile Organic Compounds** | *No data available.* |
| **Evaporation rate** | *Not applicable.* |
| **Molecular weight** | *No data available.* |
| **Percent volatile** | Nil |

## SECTION 10: Stability and reactivity

**10.1 Reactivity**
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

**10.2 Chemical stability**
Stable.

**10.3 Possibility of hazardous reactions**
Hazardous polymerisation may occur. Quantities of more than 0.5kg polymerise in presence of aliphatic amines generating a lot of heat

**10.4 Conditions to avoid**
Sparks and/or flames.

**10.5 Incompatible materials**
Amines.
Strong acids.
Strong bases.
Strong oxidising agents.

Avoid use of electrical tracing

**10.6 Hazardous decomposition products**

| Substance | Condition |
|---|---|
| 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.

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

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

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

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

**Acute Toxicity**

| Name | Route | Species | Value |
|---|---|---|---|
| Overall product | Ingestion | | No data available; calculated ATE >5,000 mg/kg |
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | Dermal | Rat | LD50 > 1,600 mg/kg |
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | Ingestion | Rat | LD50 > 1,000 mg/kg |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | Dermal | Rat | LD50 > 2,000 mg/kg |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3- | Ingestion | Rat | LD50 > 5,000 mg/kg |

| | | | |
|---|---|---|---|
| epoxypropane and phenol | | | |

ATE = acute toxicity estimate

### Skin Corrosion/Irritation

| Name | Species | Value |
|---|---|---|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | Rabbit | Mild irritant |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | Rabbit | Irritant |

### Serious Eye Damage/Irritation

| Name | Species | Value |
|---|---|---|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | Rabbit | Moderate irritant |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | Rabbit | No significant irritation |

### Skin Sensitisation

| Name | Species | Value |
|---|---|---|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | Human and animal | Sensitising |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | Multiple animal species | Sensitising |

### Respiratory Sensitisation

| Name | Species | Value |
|---|---|---|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | Human | Not classified |

### Germ Cell Mutagenicity

| Name | Route | Value |
|---|---|---|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | In vivo | Not mutagenic |
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | In vivo | Not mutagenic |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | In Vitro | Some positive data exist, but the data are not sufficient for classification |

### Carcinogenicity

| Name | Route | Species | Value |
|---|---|---|---|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | Dermal | Mouse | Some positive data exist, but the data are not sufficient for classification |

### Reproductive Toxicity

### Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | Ingestion | Not classified for female reproduction | Rat | NOAEL 750 mg/kg/day | 2 generation |
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | Ingestion | Not classified for male reproduction | Rat | NOAEL 750 mg/kg/day | 2 generation |
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | Dermal | Not classified for development | Rabbit | NOAEL 300 mg/kg/day | during organogenesis |
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | Ingestion | Not classified for development | Rat | NOAEL 750 | 2 generation |

| | | | | | |
|---|---|---|---|---|---|
| | | | | mg/kg/day | |

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|---|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL Not available | |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL not available | |

**Specific Target Organ Toxicity - repeated exposure**

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|---|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | Dermal | liver | Not classified | Rat | NOAEL 1,000 mg/kg/day | 2 years |
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | Dermal | nervous system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 13 weeks |
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | Ingestion | auditory system \| heart \| endocrine system \| hematopoietic system \| liver \| eyes \| kidney and/or bladder | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | Ingestion | heart \| endocrine system \| gastrointestinal tract \| bone, teeth, nails, and/or hair \| hematopoietic system \| liver \| immune system \| nervous system \| eyes \| kidney and/or bladder \| respiratory system \| vascular system | Not classified | Rat | NOAEL 250 mg/kg/day | 13 weeks |

**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**

No product test data available.

| Material | Identifier(s) | Organism | Type | Exposure | Test endpoint | Test result |
|---|---|---|---|---|---|---|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | 1675-54-3 | Activated sludge | Analogous Compound | 3 hours | IC50 | >100 mg/l |
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | 1675-54-3 | Rainbow trout | Estimated | 96 hours | LC50 | 2 mg/l |
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | 1675-54-3 | Water flea | Estimated | 48 hours | EC50 | 1.8 mg/l |
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | 1675-54-3 | Green algae | Experimental | 72 hours | ErC50 | >11 mg/l |
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | 1675-54-3 | Green algae | Experimental | 72 hours | NOEC | 4.2 mg/l |
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | 1675-54-3 | Water flea | Experimental | 21 days | NOEC | 0.3 mg/l |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | 9003-36-5 | Green algae | Experimental | 72 hours | EbC50 | 1.8 mg/l |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | 9003-36-5 | Rainbow trout | Experimental | 96 hours | LC50 | 2 mg/l |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | 9003-36-5 | Water flea | Experimental | 48 hours | EC50 | 1.6 mg/l |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | 9003-36-5 | Water flea | Analogous Compound | 21 days | NOEC | 0.3 mg/l |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | 9003-36-5 | Activated sludge | Analogous Compound | 3 hours | IC50 | >100 mg/l |

### 12.2. Persistence and degradability

| Material | Identifier(s) | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | 1675-54-3 | Experimental Biodegradation | 28 days | BOD | 5 %BOD/COD | OECD 301F - Manometric respirometry |
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | 1675-54-3 | Experimental Hydrolysis | | Hydrolytic half-life (pH 7) | 117 hours (t 1/2) | OECD 111 Hydrolysis func of pH |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3- | 9003-36-5 | Experimental Biodegradation | 28 days | CO2 evolution | 16 %CO2 evolution/THCO2 evolution | OECD 301B - Modified sturm or CO2 |

| | | | | | | |
|---|---|---|---|---|---|---|
| epoxypropane and phenol | | | | | | |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | 9003-36-5 | Analogous Compound Hydrolysis | | Hydrolytic half-life (pH 7) | 117 hours (t 1/2) | OECD 111 Hydrolysis func of pH |

**12.3 : Bioaccumulative potential**

| Material | Identifier(s) | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | 1675-54-3 | Experimental Bioconcentration | | Log Kow | 3.242 | OECD 117 log Kow HPLC method |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | 9003-36-5 | Experimental Bioconcentration | | Log Kow | 3.6 | OECD 117 log Kow HPLC method |

**12.4. Mobility in soil**

| Material | Identifier(s) | Test type | Study Type | Test result | Protocol |
|---|---|---|---|---|---|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | 1675-54-3 | Modeled Mobility in Soil | Koc | 450 l/kg | Episuite™ |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | 9003-36-5 | Experimental Mobility in Soil | Koc | 4,460 l/kg | OECD 121 Estim. of Koc by HPLC |

**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**

This material does not contain any substances that are assessed to be an endocrine disruptor for environmental effects

## SECTION 13: Disposal considerations

**13.1 Waste treatment methods**
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

**EU waste code (product as sold)**
08 04 09* Waste adhesives and sealants containing organic solvents or other dangerous substances

**EU waste code (product container after use)**
20 01 27* Paint, inks, adhesives and resins containing dangerous substances

## SECTION 14: Transportation information

| | Ground Transport (ADR) | Air Transport (IATA) | Marine Transport (IMDG) |
|---|---|---|---|
| **14.1 - UN Number or ID number** | UN3082 | UN3082 | UN3082 |
| **14.2 UN proper shipping name** | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(EPOXY RESIN; EPICHLOROHYDRIN-PHENOL-FORMALDEHYDE RESIN) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(EPOXY RESIN; EPICHLOROHYDRIN-PHENOL-FORMALDEHYDE RESIN) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(EPOXY RESIN; EPICHLOROHYDRIN-PHENOL-FORMALDEHYDE RESIN;EPOXY RESIN) |
| **14.3 Transport hazard class(es)** | 9 | 9 | 9 |
| **14.4 Packing group** | III | III | III |
| **14.5 Environmental hazards** | Environmentally Hazardous | Not applicable. | Marine Pollutant |
| **14.6 Special precautions for user** | 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. |
| **14.7 Marine Transport in bulk according to IMO instruments** | No data available. | No data available. | No data available. |
| **Control Temperature** | No data available. | No data available. | No data available. |
| **Emergency Temperature** | No data available. | No data available. | No data available. |
| **ADR Classification Code** | M6 | Not applicable. | Not applicable. |
| **IMDG Segregation Code** | 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 | Identifier(s) | Classification | Regulation |
|---|---|---|---|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | 1675-54-3 | Gr. 3: Not classifiable | International Agency for Research on Cancer |

**Restrictions on the manufacture, placing on the market and use:**
The following substance(s) contained in this product is/are subject to Annex XVII of regulation (EC) 1907/2006, as amended for GB, with regard to restrictions on the manufacture, placing on the market and use when present in certain dangerous conditions. Users of this product are required to comply with the restrictions placed upon it by the aforementioned provision.

| Ingredient | Identifier(s) |
|---|---|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | 1675-54-3 |

Restriction status: listed in UK REACH Annex XVII
Restricted uses: See Annex XVII to Regulation (EC) No 1907/2006 as amended for Great Britain for Conditions of Restriction

**Global inventory status**
Contact 3M for more information. 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 |
| E1 Hazardous to the Aquatic environment | 100 | 200 |

Seveso named dangerous substances, Annex 1, Part 2
None

**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**

| | |
|---|---|
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |

**Revision information:**
EU Section 14 - Table Data information was added.
EU Section 14 - Table Headers information was added.
GB Section 02: CLP Ingredient table information was added.
GB Section 02: Other hazards phrase information was added.
GB Section 04: First Aid - Symptoms and Effects (GB CLP) information was added.
GB Section 04: Information on toxicological effects information was added.
GB Section 12: Classification Warning information was added.
GB Section 15: Carcinogenicity information information was added.
GB Section 15: Chemical Safety Assessment information was added.
Section 1: E-mail address information was modified.
CLP: Ingredient table information was deleted.
Label: Graphic information was modified.
Section 2: Other hazards phrase information was deleted.
Section 3: Composition/ Information of ingredients table information was added.
Section 3: Composition/ Information of ingredients table information was deleted.
Section 03: SCL table information was added.
Section 03: SCL table information was deleted.
Section 04: First Aid - Symptoms and Effects (CLP) information was deleted.
Section 04: Information on toxicological effects information was deleted.
Section 6: Accidental release personal information information was modified.
Section 7: Conditions safe storage information was modified.
Section 8: Eye/face protection information information was modified.
Section 08: Personal Protection - Apron Statement information was added.
Section 8: Personal Protection - Skin/body information information was deleted.
Section 8: Respiratory protection - recommended respirators information information was modified.
Section 8: Skin protection - protective clothing information information was deleted.
Section 9: Flammability (solid, gas) information information was deleted.
Section 09: Flammability information information was added.
Section 09: Odor information was modified.
Section 09: Particle Characteristics N/A information was added.
Section 9: Property description for optional properties information was modified.
Section 9: Vapour density value information was modified.
Section 9: Vapour pressure value information was added.
Section 9: Vapour pressure value information was deleted.
Section 11: Classification disclaimer information was deleted.
Section 11: GB Classification disclaimer information was added.
Section 11: GB No endocrine disruptor information available warning information was added.
Section 11: No endocrine disruptor information available warning information was deleted.
Section 11: Target Organs - Single Table information was modified.
Section 12: 12.6. Endocrine Disrupting Properties information was deleted.
Section 12: 12.6. Other adverse effects information was added.
Section 12: 12.7. Other adverse effects information was deleted.
Section 12: Classification Warning information was deleted.
Section 12: Component ecotoxicity information information was modified.
Section 12: Mobility in soil information information was modified.
Prints No Data if Adverse effects information is not present information was deleted.
Section 12: No endocrine disruptor information available warning information was added.

Section 12: No endocrine disruptor information available warning information was deleted.
Section 12: Persistence and Degradability information information was modified.
Section 12:Bioccumulative potential information information was modified.
Section 14 Classification Code – Main Heading information was deleted.
Section 14 Classification Code – Regulation Data information was deleted.
Section 14 Control Temperature – Main Heading information was deleted.
Section 14 Control Temperature – Regulation Data information was deleted.
Section 14 Emergency Temperature – Main Heading information was deleted.
Section 14 Emergency Temperature – Regulation Data information was deleted.
Section 14 Hazard Class + Sub Risk – Main Heading information was deleted.
Section 14 Hazard Class + Sub Risk – Regulation Data information was deleted.
Section 14 Other Dangerous Goods – Main Heading information was deleted.
Section 14 Other Dangerous Goods – Regulation Data information was deleted.
Section 14 Packing Group – Main Heading information was deleted.
Section 14 Packing Group – Regulation Data information was deleted.
Section 14 Proper Shipping Name information was deleted.
Section 14 Regulations – Main Headings information was deleted.
Section 14 Segregation – Regulation Data information was deleted.
Section 14 Segregation Code – Main Heading information was deleted.
Section 14 Special Precautions – Main Heading information was deleted.
Section 14 Special Precautions – Regulation Data information was deleted.
Section 14 Transport in bulk – Regulation Data information was deleted.
Section 14 Marine transport in bulk according to IMO instruments – Main Heading information was deleted.
Section 14 UN Number Column data information was deleted.
Section 14 UN Number information was deleted.
Section 15: Carcinogenicity information information was deleted.
Section 15: Chemical Safety Assessment information was deleted.
Section 15: Seveso Hazard Category Text information was added.
Section 15: Seveso Hazard Category Text information was deleted.
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was added.
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was deleted.
Section 16: Web address information was added.
Section 16: Web address information was deleted.

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**3M SDSs for Great Britain are available at www.3M.com/uk**
For Northern Ireland documents, please contact your 3M representative to obtain a copy.

# Safety Data Sheet

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| | | | |
|---|---|---|---|
| **Document group:** | 38-7385-8 | **Version number:** | 7.00 |
| **Revision date:** | 30/09/2026 | **Supersedes date:** | 23/04/2024 |

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 Scotchcast Electrical Insulating Resin 4 GS Part B

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

**Identified uses**
Resin

**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:** | ner-productstewardship@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:**
Skin Corrosion/Irritation, Category 1B - Skin Corr. 1B; H314
Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318
Skin Sensitization, Category 1 - Skin Sens. 1; H317

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**
GHS05 (Corrosion) |GHS07 (Exclamation mark) |

**Pictograms**



| Ingredient | Identifier(s) | EC No. | % by Wt |
|---|---|---|---|
| Cashew Nutshell Extract, Decarboxylated, Distilled | 8007-24-7 | 700-991-6 | 10 - 24 |
| p-Toluenesulfonic acid | 104-15-4 | 203-180-0 | 1 - 4 |
| 3-morpholinopropylamine | 123-00-2 | 204-590-2 | 1 - 2.5 |
| m-Xylene-.alpha.alpha'.-diamine | 1477-55-0 | 216-032-5 | 1 - 2 |
| 3,6-diazaoctanethylenediamin | 112-24-3 | 203-950-6 | 0.1 - 1.5 |

**HAZARD STATEMENTS:**

| | |
|---|---|
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |

**PRECAUTIONARY STATEMENTS**

**Prevention:**

| | |
|---|---|
| P260A | Do not breathe vapours. |
| P280D | Wear protective gloves, protective clothing, and eye/face protection. |

**Response:**

| | |
|---|---|
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a POISON CENTRE or doctor/physician. |
| P333 + P313 | If skin irritation or rash occurs: Get medical advice/attention. |

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

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

**2.3. Other hazards**

Persons previously sensitised to amines may develop a cross-sensitisation reaction to certain other amines.
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 |
|---|---|---|---|
| Aluminium hydroxide | (CAS-No.) 21645-51-2<br>(EC-No.) 244-492-7 | 30 - 60 | Substance with a national occupational exposure limit |
| ALKYL PHENOL POLYAMINE | Trade Secret | 10 - 30 | Substance not classified as hazardous |
| Cashew Nutshell Extract, Decarboxylated, Distilled | (CAS-No.) 8007-24-7<br>(EC-No.) 700-991-6 | 10 - 24 | Aquatic Chronic 3, H412<br>Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>Skin Sens. 1A, H317 |
| Amido Amine Polyether Polymer | Trade Secret | 1 - 5 | Substance not classified as hazardous |
| p-Toluenesulfonic acid | (CAS-No.) 104-15-4<br>(EC-No.) 203-180-0 | 1 - 4 | STOT SE 3, H335<br>Acute Tox. 4, H302<br>Skin Corr. 1C, H314<br>Eye Dam. 1, H318 |
| 3-morpholinopropylamine | (CAS-No.) 123-00-2<br>(EC-No.) 204-590-2 | 1 - 2.5 | Acute Tox. 4, H302<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318 |
| m-Xylene-.alpha.alpha'.-diamine | (CAS-No.) 1477-55-0<br>(EC-No.) 216-032-5 | 1 - 2 | EUH071<br>Acute Tox. 4, H332<br>Acute Tox. 4, H302<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>Skin Sens. 1A, H317<br>Aquatic Chronic 3, H412 |
| 3,6-diazaoctanethylenediamin | (CAS-No.) 112-24-3<br>(EC-No.) 203-950-6 | 0.1 - 1.5 | Acute Tox. 4, H312<br>Skin Corr. 1B, H314<br>Skin Sens. 1, H317<br>Aquatic Chronic 3, H412<br>Acute Tox. 4, H302<br>Eye Dam. 1, H318 |
| 2,4,6-tris(dimethylaminomethyl)phenol | (CAS-No.) 90-72-2<br>(EC-No.) 202-013-9 | 0.1 - 1.5 | Acute Tox. 4, H302<br>Skin Corr. 1C, H314<br>Eye Dam. 1, H318 |
| Disodium oxide | (CAS-No.) 1313-59-3<br>(EC-No.) 215-208-9 | < 0.3 | EUH014<br>Acute Tox. 3, H301<br>Skin Corr. 1B, H314<br>STOT SE 3, H335 |

Any entry in the Identifier(s) column that begins with the numbers 6, 7, 8, or 9 are a Provisional List Number provided by ECHA pending publication of the official EC Inventory Number for the substance.
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 |
|---|---|---|
| p-Toluenesulfonic acid | (CAS-No.) 104-15-4<br>(EC-No.) 203-180-0 | (C >= 20%) STOT SE 3, H335 |

| | | |
|---|---|---|
| | | |

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

## SECTION 4: First aid measures

**4.1. Description of first aid measures**

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

**Skin contact**
Immediately flush with large amounts of water for at least 15 minutes. Remove contaminated clothing. Get immediate medical attention. Wash clothing before reuse.

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

**If swallowed**
Rinse mouth. Do not induce vomiting. Get immediate medical attention.

**4.2. Most important symptoms and effects, both acute and delayed**
The most important symptoms and effects based on the GB CLP classification include:
Skin burns (localized redness, swelling, itching, intense pain, blistering, and tissue destruction). Allergic skin reaction (redness, swelling, blistering, and itching).

**4.3. Indication of any immediate medical attention and special treatment required**
Not applicable.

## SECTION 5: Fire-fighting measures

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

**5.2. Special hazards arising from the substance or mixture**
None inherent in this product.

**Hazardous Decomposition or By-Products**

| Substance | Condition |
|---|---|
| Amine compounds. | During combustion. |
| Carbon monoxide | During combustion. |
| Carbon dioxide. | During combustion. |
| Hydrogen Sulfide | During combustion. |
| Oxides of sulphur. | During combustion. |
| Toxic vapour, gas, particulate. | During combustion. |

**5.3. Advice for fire-fighters**
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**

Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS. Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice.

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

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

**6.4. Reference to other sections**
Refer to Section 8 and Section 13 for more information

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling**
Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Keep away from reactive metals (eg. Aluminium, zinc etc.) to avoid the formation of hydrogen gas that could create an explosion hazard.

**7.2. Conditions for safe storage including any incompatibilities**
Store away from acids. Store away from strong bases. 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 | Identifier(s) | Agency | Limit type | Additional comments |
|---|---|---|---|---|
| Dust, inhalable dust | 21645-51-2 | UK HSE | TWA(as respirable dust):4 mg/m3;TWA(as inhalable dust):10 mg/m3 | |

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

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

**8.2. Exposure controls**

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

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

**Eye/face protection**

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

*Applicable Norms/Standards*
Use eye/face protection conforming to EN 16321

**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:

| Material | Thickness (mm) | Breakthrough Time |
|---|---|---|
| Polymer laminate | No data available | No data available |
| Butyl rubber. | 0.7 | =>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

If this product is used in a manner that presents a higher potential for exposure (e.g., spraying, high splash potential, etc.), then use of a protective apron may be necessary. See recommended glove material(s) for determining appropriate apron material(s). If a glove material is not available as an apron, polymer laminate is a suitable option.

**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**

| | |
|---|---|
| **Physical state** | Liquid. |
| **Specific Physical Form:** | Slurry |
| **Colour** | Yellow |
| **Odor** | Amine |
| **Odour threshold** | *No data available.* |
| **Melting point/freezing point** | *No data available.* |
| **Boiling point/boiling range** | *Not applicable.* |
| **Flammability** | Not applicable. |
| **Flammable Limits(LEL)** | *No data available.* |
| **Flammable Limits(UEL)** | *No data available.* |
| **Flash point** | > 100 ºC [*Test Method:*Closed Cup] |
| **Autoignition temperature** | *Not applicable.* |
| **Decomposition temperature** | > 200 ºC |
| **pH** | *substance/mixture is non-polar/aprotic* |
| **Kinematic Viscosity** | 5,000 $mm^2$/sec |
| **Water solubility** | Slight (less than 10%) |
| **Solubility- non-water** | *No data available.* |
| **Partition coefficient: n-octanol/water** | *No data available.* |
| **Density** | 1.5 kg/l |
| **Relative density** | 1.5 [*Ref Std:*WATER=1] |
| **Relative Vapour Density** | *Not applicable.* |
| **Particle Characteristics** | *Not applicable.* |

**9.2. Other information**

**9.2.2 Other safety characteristics**

| | |
|---|---|
| **EU Volatile Organic Compounds** | *No data available.* |
| **Evaporation rate** | *Not applicable.* |
| **Molecular weight** | *No data available.* |
| **Percent volatile** | Nil |

# SECTION 10: Stability and reactivity

**10.1 Reactivity**
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

**10.2 Chemical stability**
Stable.

**10.3 Possibility of hazardous reactions**
Hazardous polymerisation will not occur.

**10.4 Conditions to avoid**
None known.

**10.5 Incompatible materials**
Accelerators
Strong acids.
Strong bases.

Strong oxidising agents.
Zinc

**10.6 Hazardous decomposition products**

| Substance | Condition |
|---|---|
| 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.

**Skin contact**
Corrosive (skin burns): Signs/symptoms may include localised redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

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

**Ingestion**
Gastrointestinal corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain, nausea, vomiting, and diarrhea; blood in the faeces and/or vomitus may also be seen.

**Additional information:**
Persons previously sensitised to amines may develop a cross-sensitisation reaction to certain other amines.

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

**Acute Toxicity**

| Name | Route | Species | Value |
|---|---|---|---|
| Overall product | Dermal | | No data available; calculated ATE >5,000 mg/kg |
| Overall product | Ingestion | | No data available; calculated ATE >5,000 mg/kg |
| Aluminium hydroxide | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Aluminium hydroxide | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 2.3 mg/l |
| Aluminium hydroxide | Ingestion | Rat | LD50 > 5,000 mg/kg |

| | | | |
|---|---|---|---|
| Cashew Nutshell Extract, Decarboxylated, Distilled | Dermal | Rat | LD50 > 2,000 mg/kg |
| Cashew Nutshell Extract, Decarboxylated, Distilled | Ingestion | Rat | LD50 > 2,000 mg/kg |
| p-Toluenesulfonic acid | Ingestion | Rat | LD50 1,410 mg/kg |
| p-Toluenesulfonic acid | Dermal | similar compounds | LD50 > 2,000 mg/kg |
| 3-morpholinopropylamine | Dermal | Rabbit | LD50 2,220 mg/kg |
| 3-morpholinopropylamine | Ingestion | Rat | LD50 1,791 mg/kg |
| m-Xylene-.alpha.alpha'.-diamine | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| m-Xylene-.alpha.alpha'.-diamine | Inhalation-Dust/Mist (4 hours) | Rat | LC50 1.2 mg/l |
| m-Xylene-.alpha.alpha'.-diamine | Ingestion | Rat | LD50 980 mg/kg |
| 3,6-diazaoctanethylenediamin | Dermal | Rat | LD50 1,465 mg/kg |
| 3,6-diazaoctanethylenediamin | Ingestion | Rat | LD50 1,591 mg/kg |
| 2,4,6-tris(dimethylaminomethyl)phenol | Dermal | Rat | LD50 1,280 mg/kg |
| 2,4,6-tris(dimethylaminomethyl)phenol | Ingestion | Rat | LD50 1,000 mg/kg |
| Disodium oxide | Ingestion | Professional judgement | LD50 estimated to be 50 - 300 mg/kg |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name | Species | Value |
|---|---|---|
| Aluminium hydroxide | Rabbit | No significant irritation |
| Cashew Nutshell Extract, Decarboxylated, Distilled | Rabbit | Irritant |
| p-Toluenesulfonic acid | Rabbit | Corrosive |
| 3-morpholinopropylamine | Rabbit | Corrosive |
| m-Xylene-.alpha.alpha'.-diamine | Rat | Corrosive |
| 3,6-diazaoctanethylenediamin | Rabbit | Corrosive |
| 2,4,6-tris(dimethylaminomethyl)phenol | Rabbit | Corrosive |
| Disodium oxide | similar compounds | Corrosive |

**Serious Eye Damage/Irritation**

| Name | Species | Value |
|---|---|---|
| Aluminium hydroxide | Rabbit | No significant irritation |
| Cashew Nutshell Extract, Decarboxylated, Distilled | Rabbit | Corrosive |
| p-Toluenesulfonic acid | similar compounds | Corrosive |
| 3-morpholinopropylamine | Rabbit | Corrosive |
| m-Xylene-.alpha.alpha'.-diamine | Rabbit | Corrosive |
| 3,6-diazaoctanethylenediamin | Rabbit | Corrosive |
| 2,4,6-tris(dimethylaminomethyl)phenol | Rabbit | Corrosive |
| Disodium oxide | similar compounds | Corrosive |

**Skin Sensitisation**

| Name | Species | Value |
|---|---|---|
| Aluminium hydroxide | Guinea pig | Not classified |
| Cashew Nutshell Extract, Decarboxylated, Distilled | Multiple animal species | Sensitising |
| p-Toluenesulfonic acid | Guinea pig | Not classified |

| | | |
|---|---|---|
| m-Xylene-.alpha.alpha'.-diamine | Guinea pig | Sensitising |
| 3,6-diazaoctanethylenediamin | Guinea pig | Sensitising |
| 2,4,6-tris(dimethylaminomethyl)phenol | Guinea pig | Not classified |

**Respiratory Sensitisation**

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

**Germ Cell Mutagenicity**

| Name | Route | Value |
|---|---|---|
| Cashew Nutshell Extract, Decarboxylated, Distilled | In Vitro | Not mutagenic |
| p-Toluenesulfonic acid | In Vitro | Not mutagenic |
| 3-morpholinopropylamine | In Vitro | Not mutagenic |
| 3-morpholinopropylamine | In vivo | Not mutagenic |
| m-Xylene-.alpha.alpha'.-diamine | In Vitro | Not mutagenic |
| m-Xylene-.alpha.alpha'.-diamine | In vivo | Not mutagenic |
| 3,6-diazaoctanethylenediamin | In vivo | Not mutagenic |
| 3,6-diazaoctanethylenediamin | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| 2,4,6-tris(dimethylaminomethyl)phenol | In Vitro | Not mutagenic |

**Carcinogenicity**

| Name | Route | Species | Value |
|---|---|---|---|
| Aluminium hydroxide | Not specified. | Multiple animal species | Not carcinogenic |
| 3,6-diazaoctanethylenediamin | Dermal | Mouse | Not carcinogenic |

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

| Name | Route | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|
| Aluminium hydroxide | Ingestion | Not classified for development | Rat | NOAEL 768 mg/kg/day | during organogenesis |
| Cashew Nutshell Extract, Decarboxylated, Distilled | Ingestion | Not classified for female reproduction | Rat | NOAEL 1,000 mg/kg/day | premating into lactation |
| Cashew Nutshell Extract, Decarboxylated, Distilled | Ingestion | Not classified for male reproduction | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| Cashew Nutshell Extract, Decarboxylated, Distilled | Ingestion | Not classified for development | Rat | NOAEL 1,000 mg/kg/day | premating into lactation |
| 3-morpholinopropylamine | Ingestion | Not classified for female reproduction | Rat | NOAEL 450 mg/kg/day | premating into lactation |
| 3-morpholinopropylamine | Ingestion | Not classified for male reproduction | Rat | NOAEL 450 mg/kg/day | 39 days |
| 3-morpholinopropylamine | Ingestion | Not classified for development | Rat | NOAEL 450 mg/kg/day | premating into lactation |
| m-Xylene-.alpha.alpha'.-diamine | Ingestion | Not classified for female reproduction | Rat | NOAEL 450 mg/kg/day | premating into lactation |
| m-Xylene-.alpha.alpha'.-diamine | Ingestion | Not classified for male reproduction | Rat | NOAEL 450 mg/kg/day | 48 days |
| m-Xylene-.alpha.alpha'.-diamine | Ingestion | Not classified for development | Rat | NOAEL 450 mg/kg/day | premating into lactation |
| 3,6-diazaoctanethylenediamin | Dermal | Not classified for development | Rabbit | NOAEL 125 mg/kg/day | during organogenesis |
| 3,6-diazaoctanethylenediamin | Ingestion | Not classified for development | Rat | NOAEL 750 mg/kg/day | during organogenesis |
| 2,4,6-tris(dimethylaminomethyl)phenol | Ingestion | Not classified for male reproduction | Rat | NOAEL 150 | 2 generation |

| | | | | | |
|---|---|---|---|---|---|
| | | | | mg/kg/day | |
| 2,4,6-tris(dimethylaminomethyl)phenol | Ingestion | Not classified for female reproduction | Rat | NOAEL 50 mg/kg/day | 2 generation |
| 2,4,6-tris(dimethylaminomethyl)phenol | Ingestion | Not classified for development | Rabbit | NOAEL 15 mg/kg/day | during gestation |

## Target Organ(s)

### Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|---|
| Cashew Nutshell Extract, Decarboxylated, Distilled | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL Not available | |
| p-Toluenesulfonic acid | Inhalation | respiratory irritation | May cause respiratory irritation | similar health hazards | NOAEL Not available. | |
| 3-morpholinopropylamine | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL Not available | |
| m-Xylene-.alpha.alpha'.-diamine | Inhalation | respiratory irritation | May cause respiratory irritation | similar health hazards | NOAEL Not avaliable | |
| 3,6-diazaoctanethylenediamin | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL Not available | |
| 2,4,6-tris(dimethylaminomethyl) phenol | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL Not available | |
| Disodium oxide | Inhalation | respiratory irritation | May cause respiratory irritation | Professional judgement | NOAEL Not available | |

### Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|---|
| Cashew Nutshell Extract, Decarboxylated, Distilled | Ingestion | hematopoietic system \| liver \| immune system \| respiratory system \| nervous system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| p-Toluenesulfonic acid | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 500 mg/kg/day | 28 days |
| 3-morpholinopropylamine | Ingestion | hematopoietic system \| liver \| immune system | Not classified | Rat | NOAEL 500 mg/kg/day | 28 days |
| 3-morpholinopropylamine | Ingestion | gastrointestinal tract | Not classified | Rat | NOAEL 125 mg/kg/day | 28 days |
| 3-morpholinopropylamine | Ingestion | heart \| skin \| endocrine system \| bone, teeth, nails, and/or hair \| muscles \| nervous system \| eyes \| kidney and/or bladder \| respiratory system \| vascular system | Not classified | Rat | NOAEL 500 mg/kg/day | 28 days |
| m-Xylene-.alpha.alpha'.-diamine | Inhalation | respiratory system | Not classified | Rat | NOAEL 0.005 mg/l | 13 weeks |
| m-Xylene-.alpha.alpha'.-diamine | Inhalation | heart \| skin \| endocrine system \| gastrointestinal tract \| bone, teeth, nails, and/or hair \| | Not classified | Rat | NOAEL 0.03 mg/l | 13 weeks |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | hematopoietic system \| liver \| immune system \| muscles \| nervous system \| eyes \| kidney and/or bladder \| vascular system | | | | |
| m-Xylene-.alpha.alpha'.-diamine | Ingestion | endocrine system \| hematopoietic system | Not classified | Rat | NOAEL 600 mg/kg/day | 28 days |
| m-Xylene-.alpha.alpha'.-diamine | Ingestion | gastrointestinal tract | Not classified | Rat | NOAEL 150 mg/kg/day | 28 days |
| m-Xylene-.alpha.alpha'.-diamine | Ingestion | heart \| liver \| immune system \| kidney and/or bladder | Not classified | Rat | NOAEL 600 mg/kg/day | 28 days |
| 2,4,6-tris(dimethylaminomethyl) phenol | Dermal | skin | Not classified | Rat | NOAEL 25 mg/kg/day | 4 weeks |
| 2,4,6-tris(dimethylaminomethyl) phenol | Dermal | liver \| nervous system \| auditory system \| hematopoietic system \| eyes | Not classified | Rat | NOAEL 125 mg/kg/day | 4 weeks |
| 2,4,6-tris(dimethylaminomethyl) phenol | Ingestion | heart \| endocrine system \| hematopoietic system \| liver \| muscles \| nervous system \| kidney and/or bladder \| respiratory system \| vascular system \| auditory system \| skin \| gastrointestinal tract \| bone, teeth, nails, and/or hair \| immune system \| eyes | Not classified | Rat | NOAEL 150 mg/kg/day | 90 days |

**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**

No product test data available.

| Material | Identifier(s) | Organism | Type | Exposure | Test endpoint | Test result |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| Aluminium hydroxide | 21645-51-2 | Fish | Experimental | 96 hours | No tox obs at lmt of water sol | >100 mg/l |
| Aluminium hydroxide | 21645-51-2 | Green algae | Experimental | 72 hours | No tox obs at lmt of water sol | >100 mg/l |
| Aluminium hydroxide | 21645-51-2 | Water flea | Experimental | 48 hours | No tox obs at lmt of water sol | >100 mg/l |
| Aluminium hydroxide | 21645-51-2 | Green algae | Experimental | 72 hours | No tox obs at lmt of water sol | 100 mg/l |
| Cashew Nutshell Extract, Decarboxylated, Distilled | 8007-24-7 | Green algae | Experimental | 72 hours | EL50 | 5.82 mg/l |
| Cashew Nutshell Extract, Decarboxylated, Distilled | 8007-24-7 | Sheepshead Minnow | Experimental | 96 hours | LL50 | >1,000 mg/l |
| Cashew Nutshell Extract, Decarboxylated, Distilled | 8007-24-7 | Water flea | Experimental | 48 hours | EL50 | 40.46 mg/l |
| Cashew Nutshell Extract, Decarboxylated, Distilled | 8007-24-7 | Green algae | Experimental | 72 hours | NOEL | 1 mg/l |
| Amido Amine Polyether Polymer | Trade Secret | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |
| p-Toluenesulfonic acid | 104-15-4 | Green algae | Analogous Compound | 72 hours | ErC50 | 310 mg/l |
| p-Toluenesulfonic acid | 104-15-4 | Golden Orfe | Experimental | 96 hours | LC50 | >325 mg/l |
| p-Toluenesulfonic acid | 104-15-4 | Water flea | Experimental | 48 hours | EC50 | >650 mg/l |
| p-Toluenesulfonic acid | 104-15-4 | Green algae | Analogous Compound | 72 hours | NOEC | 85 mg/l |
| p-Toluenesulfonic acid | 104-15-4 | Activated sludge | Experimental | 3 hours | EC50 | >1,000 mg/l |
| 3-morpholinopropylamine | 123-00-2 | Green algae | Experimental | 72 hours | EC50 | >100 mg/l |
| 3-morpholinopropylamine | 123-00-2 | Water flea | Experimental | 48 hours | EC50 | >100 mg/l |
| 3-morpholinopropylamine | 123-00-2 | Green algae | Experimental | 72 hours | EC10 | 100 mg/l |
| m-Xylene-.alpha.alpha'.-diamine | 1477-55-0 | Activated sludge | Experimental | 30 minutes | EC50 | >1,000 mg/l |
| m-Xylene-.alpha.alpha'.-diamine | 1477-55-0 | Bacteria | Experimental | 16 hours | EC10 | 24 mg/l |
| m-Xylene-.alpha.alpha'.-diamine | 1477-55-0 | Green algae | Experimental | 72 hours | ErC50 | 28 mg/l |
| m-Xylene-.alpha.alpha'.-diamine | 1477-55-0 | Medaka | Experimental | 96 hours | LC50 | 87.6 mg/l |
| m-Xylene-.alpha.alpha'.-diamine | 1477-55-0 | Water flea | Experimental | 48 hours | EC50 | 15.2 mg/l |
| m-Xylene-.alpha.alpha'.-diamine | 1477-55-0 | Green algae | Experimental | 72 hours | NOEC | 9.8 mg/l |
| m-Xylene-.alpha.alpha'.-diamine | 1477-55-0 | Water flea | Experimental | 21 days | NOEC | 4.7 mg/l |

| | | | | | | |
|---|---|---|---|---|---|---|
| 3,6-diazaoctanethylene diamin | 112-24-3 | Green algae | Experimental | 72 hours | EC50 | 27.4 mg/l |
| 3,6-diazaoctanethylene diamin | 112-24-3 | Guppy | Experimental | 96 hours | LC50 | 570 mg/l |
| 3,6-diazaoctanethylene diamin | 112-24-3 | Water flea | Experimental | 48 hours | EC50 | 37.4 mg/l |
| 3,6-diazaoctanethylene diamin | 112-24-3 | Green algae | Experimental | 72 hours | NOEC | 0.468 mg/l |
| 3,6-diazaoctanethylene diamin | 112-24-3 | Water flea | Experimental | 21 days | NOEC | 2.86 mg/l |
| 2,4,6-tris(dimethylamino methyl)phenol | 90-72-2 | N/A | Experimental | 96 hours | LC50 | 718 mg/l |
| 2,4,6-tris(dimethylamino methyl)phenol | 90-72-2 | Common Carp | Experimental | 96 hours | LC50 | >100 mg/l |
| 2,4,6-tris(dimethylamino methyl)phenol | 90-72-2 | Green algae | Experimental | 72 hours | EC50 | 46.7 mg/l |
| 2,4,6-tris(dimethylamino methyl)phenol | 90-72-2 | Water flea | Experimental | 48 hours | EC50 | >100 mg/l |
| 2,4,6-tris(dimethylamino methyl)phenol | 90-72-2 | Green algae | Experimental | 72 hours | NOEC | 6.44 mg/l |
| Disodium oxide | 1313-59-3 | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |

### 12.2. Persistence and degradability

| Material | Identifier(s) | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| Aluminium hydroxide | 21645-51-2 | Data not availbl-insufficient | N/A | N/A | N/A | N/A |
| Cashew Nutshell Extract, Decarboxylated, Distilled | 8007-24-7 | Experimental Biodegradation | 28 days | BOD | 83.8 %BOD/ThOD | OECD 301F - Manometric respirometry |
| Amido Amine Polyether Polymer | Trade Secret | Data not availbl-insufficient | N/A | N/A | N/A | N/A |
| p-Toluenesulfonic acid | 104-15-4 | Experimental Biodegradation | 21 days | BOD | 93 %BOD/ThOD | OECD 301C - MITI test (I) |
| p-Toluenesulfonic acid | 104-15-4 | Experimental Aquatic Inherent Biodegrad. | 10 days | Dissolv. Organic Carbon Deplet | >90 %removal of DOC | OECD 302B Zahn-Wellens/EVPA |
| 3-morpholinopropylamine | 123-00-2 | Experimental Biodegradation | 28 days | CO2 evolution | 6.2 %CO2 evolution/THCO2 evolution | OECD 301B - Modified sturm or CO2 |
| m-Xylene-.alpha.alpha'.-diamine | 1477-55-0 | Experimental Biodegradation | 28 days | CO2 evolution | 49 %CO2 evolution/THCO2 evolution | OECD 301B - Modified sturm or CO2 |
| m-Xylene-.alpha.alpha'.-diamine | 1477-55-0 | Experimental Aquatic Inherent Biodegrad. | 28 days | BOD | 22 %BOD/ThOD | OECD 302C - Modified MITI (II) |
| 3,6-diazaoctanethylene diamin | 112-24-3 | Experimental Biodegradation | 20 days | BOD | 0 %BOD/ThOD | OECD 301D - Closed bottle test |
| 2,4,6-tris(dimethylamino methyl)phenol | 90-72-2 | Experimental Biodegradation | 28 days | BOD | 4 %BOD/ThOD | OECD 301D - Closed bottle test |
| Disodium oxide | 1313-59-3 | Data not availbl-insufficient | N/A | N/A | N/A | N/A |

### 12.3 : Bioaccumulative potential

| Material | Identifier(s) | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| Aluminium hydroxide | 21645-51-2 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Cashew Nutshell Extract, Decarboxylated, Distilled | 8007-24-7 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Amido Amine Polyether Polymer | Trade Secret | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| p-Toluenesulfonic acid | 104-15-4 | Experimental Bioconcentration | | Log Kow | -0.96 | EC A.8 Partition Coefficient |
| 3-morpholinopropylamine | 123-00-2 | Experimental Bioconcentration | | Log Kow | -1.076 | OECD 107 log Kow shke flsk mtd |
| m-Xylene-.alpha.alpha'.-diamine | 1477-55-0 | Experimental BCF - Fish | 42 days | Bioaccumulation factor | <2.7 | OECD305-Bioconcentration |
| m-Xylene-.alpha.alpha'.-diamine | 1477-55-0 | Extrapolated Bioconcentration | | Log Kow | 0.18 | OECD 107 log Kow shke flsk mtd |
| 3,6-diazaoctanethylene diamin | 112-24-3 | Experimental BCF - Fish | 42 days | Bioaccumulation factor | <5.0 | OECD305-Bioconcentration |
| 2,4,6-tris(dimethylaminomethyl)phenol | 90-72-2 | Experimental Bioconcentration | | Log Kow | -0.66 | 830.7550 Part.Coef Shake Flask |
| Disodium oxide | 1313-59-3 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |

### 12.4. Mobility in soil

| Material | Identifier(s) | Test type | Study Type | Test result | Protocol |
|---|---|---|---|---|---|
| Cashew Nutshell Extract, Decarboxylated, Distilled | 8007-24-7 | Estimated Mobility in Soil | Koc | 3200-1800000 l/kg | ACD/Labs ChemSketch™ |
| p-Toluenesulfonic acid | 104-15-4 | Modeled Mobility in Soil | Koc | 1 l/kg | ACD/Labs ChemSketch™ |
| 3-morpholinopropylamine | 123-00-2 | Modeled Mobility in Soil | Koc | 1 l/kg | ACD/Labs ChemSketch™ |
| m-Xylene-.alpha.alpha'.-diamine | 1477-55-0 | Modeled Mobility in Soil | Koc | <1 l/kg | ACD/Labs ChemSketch™ |

### 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

This material does not contain any substances that are assessed to be an endocrine disruptor for environmental effects

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

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

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

**EU waste code (product as sold)**

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

**EU waste code (product container after use)**

20 01 27* Paint, inks, adhesives and resins containing dangerous substances

## SECTION 14: Transportation information

| | Ground Transport (ADR) | Air Transport (IATA) | Marine Transport (IMDG) |
|---|---|---|---|
| **14.1 - UN Number or ID number** | UN2735 | UN2735 | UN2735 |
| **14.2 UN proper shipping name** | AMINES, LIQUID, CORROSIVE, N.O.S.(4-AMINOPROPYL MORPHOLINE; M-PHENYLENEBIS(METHYL AMINE)) | AMINES, LIQUID, CORROSIVE, N.O.S.(4-AMINOPROPYL MORPHOLINE; M-PHENYLENEBIS(METHYL AMINE)) | AMINES, LIQUID, CORROSIVE, N.O.S.(4-AMINOPROPYL MORPHOLINE; M-PHENYLENEBIS(METHYL AMINE)) |
| **14.3 Transport hazard class(es)** | 8 | 8 | 8 |
| **14.4 Packing group** | II | II | II |
| **14.5 Environmental hazards** | Not Environmentally Hazardous | Not applicable. | Not a Marine Pollutant |
| **14.6 Special precautions for user** | 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. |
| **14.7 Marine Transport in bulk according to IMO instruments** | No data available. | No data available. | No data available. |
| **Control Temperature** | No data available. | No data available. | No data available. |

| | | | |
|---|---|---|---|
| **Emergency Temperature** | No data available. | No data available. | No data available. |
| **ADR Classification Code** | C7 | Not applicable. | Not applicable. |
| **IMDG Segregation Code** | 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**

**Global inventory status**
Contact 3M for more information. 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
None

Seveso named dangerous substances, Annex 1, Part 2
None

**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**

| | |
|---|---|
| EUH014 | Reacts violently with water. |
| EUH071 | Corrosive to the respiratory tract. |
| H301 | Toxic if swallowed. |
| H302 | Harmful if swallowed. |
| H312 | Harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H412 | Harmful to aquatic life with long lasting effects. |

**Revision information:**
Section 14 - Not Hazardous for Transportation information was modified.
EU Section 14 - Table Data information was added.
EU Section 14 - Table Headers information was added.
GB Section 02: CLP Ingredient table information was modified.
GBSDS Section 14 Transport in bulk - Main Heading information was deleted.
GBSDS Section 14 UN Number information was deleted.
Section 1: E-mail address information was modified.
Label: Graphic information was modified.
Section 3: Composition/ Information of ingredients table information was modified.
Section 6: Accidental release personal information information was modified.
Section 7: Conditions safe storage information was modified.
Section 8: Occupational exposure limit table information was modified.
OEL Reg Agency Desc information was modified.
Section 08: Personal Protection - Apron Statement information was added.
Section 8: Personal Protection - Skin/body information information was deleted.
Section 8: Skin protection - protective clothing information information was deleted.
Section 9: Property description for optional properties information was modified.
Section 11: Acute Toxicity table information was modified.
Section 11: Carcinogenicity Table information was modified.
Section 11: Germ Cell Mutagenicity Table information was modified.
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Target Organs - Repeated Table information was modified.
Section 11: Target Organs - Single Table information was modified.
Section 12: Component ecotoxicity information information was modified.
Section 12: Mobility in soil information information was modified.
Section 12: Persistence and Degradability information information was modified.
Section 12:Bioccumulative potential information information was modified.
Section 14 Classification Code – Main Heading information was deleted.
Section 14 Classification Code – Regulation Data information was deleted.
Section 14 Control Temperature – Main Heading information was deleted.
Section 14 Control Temperature – Regulation Data information was deleted.
Section 14 Emergency Temperature – Main Heading information was deleted.
Section 14 Emergency Temperature – Regulation Data information was deleted.
Section 14 Hazard Class + Sub Risk – Main Heading information was deleted.
Section 14 Hazard Class + Sub Risk – Regulation Data information was deleted.
Section 14 Other Dangerous Goods – Main Heading information was deleted.
Section 14 Other Dangerous Goods – Regulation Data information was deleted.
Section 14 Packing Group – Main Heading information was deleted.
Section 14 Packing Group – Regulation Data information was deleted.
Section 14 Proper Shipping Name information was deleted.
Section 14 Regulations – Main Headings information was deleted.
Section 14 Segregation – Regulation Data information was deleted.
Section 14 Segregation Code – Main Heading information was deleted.
Section 14 Special Precautions – Main Heading information was deleted.
Section 14 Special Precautions – Regulation Data information was deleted.
Section 14 Transport in bulk – Regulation Data information was deleted.
Section 14 UN Number Column data information was deleted.
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was modified.

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