# Safety Data Sheet



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|---|---|---|---|
| **Document group:** | 05-6784-2 | **Version number:** | 3.02 |
| **Issue Date:** | 25/08/2025 | **Supersedes date:** | 22/11/2024 |

This Safety Data Sheet has been prepared in accordance with the South African National Standard SANS 10234:2008.

## IDENTIFICATION

**1.1. Product identifier**
3M(TM) Scotch-Weld(TM) Epoxy Adhesive DP105 Clear

**Product Identification Numbers**
62-3287-1435-7

**1.2. Recommended use and restrictions on use**
Structural adhesive.

**1.3. Supplier's details**

| | |
|---|---|
| **Address:** | 3M South Africa (Pty) Ltd, Private Bag X926, Rivonia 2128 |
| **Telephone:** | 011 806 2000 |
| **E Mail:** | Not available. |
| **Website:** | www.3m.co.za |

**1.4. Emergency telephone number**
011 806 2000

**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:**

05-6781-8, 05-6783-4

## TRANSPORT INFORMATION

Compliance is required to South African Transport Information Road Traffic Act & Regulations and Railroad regulations, IATA Standards for airfreight and Maritime standards for ocean freight.

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

**3M South Africa SDSs are available at www.3m.co.za**

# Safety Data Sheet



| | | | |
|---|---|---|---|
| **Document group:** | 05-6781-8 | **Version number:** | 6.00 |
| **Issue Date:** | 25/08/2025 | **Supersedes date:** | 22/11/2024 |

This Safety Data Sheet has been prepared in accordance with the South African National Standard SANS 10234:2008.

## SECTION 1: Identification

**1.1. Product identifier**
3M™ Scotch-Weld™ Epoxy Adhesive DP105 Clear, Part B

**1.2. Recommended use and restrictions on use**

**Recommended use**
Part B of 2-Component Epoxy Adhesive, Structural adhesive.

**1.3. Supplier's details**

| | |
|---|---|
| **Address:** | 3M South Africa (Pty) Ltd, Private Bag X926, Rivonia 2128 |
| **Telephone:** | 011 806 2000 |
| **E Mail:** | Not available. |
| **Website:** | www.3m.co.za |

**1.4. Emergency telephone number**
011 806 2000

## SECTION 2: Hazard identification

**2.1. Classification of the substance or mixture**
Acute Toxicity (oral): Category 5.
Skin Corrosion/Irritation: Category 3.
Serious Eye Damage/Irritation: Category 2A
Skin Sensitizer: Category 1.
Acute Aquatic Toxicity: Category 3.
Chronic Aquatic Toxicity: Category 3.

**2.2. Label elements**

**Signal word**
Warning

**Symbols**
Exclamation mark |

**Pictograms**

**HAZARD STATEMENTS:**

| | |
|---|---|
| H303 | May be harmful if swallowed. |
| H316 | Causes mild skin irritation. |
| H319 | Causes serious eye irritation. |
| H317 | May cause an allergic skin reaction. |
| H412 | Harmful to aquatic life with long lasting effects. |

**PRECAUTIONARY STATEMENTS**

**Prevention:**

| | |
|---|---|
| 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. |

**2.3. Other hazards**
None known.

## SECTION 3: Composition/information on ingredients

This material is a mixture.

| Ingredient | CAS Nbr | % by Wt |
|---|---|---|
| 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | 30583-72-3 | 70 - 80 |
| Epoxy Resin | 25068-38-6 | 20 - 24 |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | 2530-83-8 | 0.5 - 1.5 |

## 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**

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. Suitable 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 |
|---|---|
| Aldehydes. | During combustion. |
| Hydrocarbons. | During combustion. |
| Carbon monoxide. | During combustion. |
| Carbon dioxide. | During combustion. |
| Hydrogen Chloride | During combustion. |
| Ketones. | During combustion. |
| Toxic vapour, gas, particulate. | During combustion. |

**5.3. Special protective actions 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 vapors, 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 in accordance with applicable local/regional/national/international regulations.

# SECTION 7: Handling and storage

**7.1. Precautions for safe handling**
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 oxidising agents.

# 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.

**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.

**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: Polymer laminate

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
Half facepiece or full facepiece supplied-air respirator

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

# SECTION 9: Physical and chemical properties

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

| | |
|---|---|
| **Physical state** | Liquid. |
| **Specific Physical Form:** | Viscous Liquid |
| **Colour** | Colorless |
| **Odor** | Slight Epoxy |
| **Odour threshold** | *No data available.* |
| **pH** | *Not applicable.* |
| **Melting point/Freezing point** | *Not applicable.* |
| **Boiling point/Initial boiling point/Boiling range** | >=115,6 ºC |
| **Flash point** | >=115,6 ºC [*Test Method:*Pensky-Martens Closed Cup] |
| **Evaporation rate** | *No data available.* |
| **Flammability** | Not applicable. |
| **Flammable Limits(LEL)** | *No data available.* |
| **Flammable Limits(UEL)** | *No data available.* |
| **Vapour pressure** | <=186 158,4 Pa [@ 55 ºC ] |
| **Relative Vapor Density** | *No data available.* |
| **Density** | 1,11 g/ml |
| **Relative density** | 1,11 [*Ref Std:*WATER=1] |
| **Water solubility** | Nil |
| **Solubility- non-water** | *No data available.* |
| **Partition coefficient: n-octanol/water** | *No data available.* |
| **Autoignition temperature** | *No data available.* |
| **Decomposition temperature** | *No data available.* |
| **Kinematic Viscosity** | 4 505 mm²/sec |
| **Volatile organic compounds (VOC)** | *No data available.* |
| **Percent volatile** | *No data available.* |
| **VOC less H2O & exempt solvents** | < 20 g/l [*Test Method:*calculated SCAQMD rule 443.1] [*Details:*when used as intended with Part A] |
| **VOC less H2O & exempt solvents** | 1,5 % [*Test Method:*calculated per CARB title 2] [*Details:*when used as intended with Part A] |
| **VOC less H2O & exempt solvents** | 11 g/l [*Test Method:*calculated SCAQMD rule 443.1] [*Details:*as supplied] |
| **Molecular weight** | *No data available.* |

| | |
|---|---|
| **Particle Characteristics** | *Not applicable.* |

# SECTION 10: Stability and reactivity

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

**10.2 Chemical stability**
Stable.

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

**10.4 Conditions to avoid**

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

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

**10.6 Hazardous decomposition products**

| Substance | Condition |
|---|---|
| None known. | |

Refer to section 5.2 for hazardous decomposition products during combustion.

# SECTION 11: Toxicological information

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

**11.1 Information on Toxicological effects**

**Signs and Symptoms of Exposure**

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

**Inhalation**
Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

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

**Eye contact**
Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

**Ingestion**
May be harmful if swallowed.
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 | Dermal | | No data available; calculated ATE >5 000 mg/kg |
| Overall product | Ingestion | | No data available; calculated ATE >2 000 - =5 000 mg/kg |
| 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | Dermal | Rat | LD50 > 2 000 mg/kg |
| 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | Ingestion | Rat | LD50 > 2 000 mg/kg |

| | | | |
|---|---|---|---|
| Epoxy Resin | Dermal | Rat | LD50 > 1 600 mg/kg |
| Epoxy Resin | Ingestion | Rat | LD50 > 1 000 mg/kg |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | Dermal | Rabbit | LD50 4 000 mg/kg |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 5,3 mg/l |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | Ingestion | Rat | LD50 7 010 mg/kg |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name | Species | Value |
|---|---|---|
| 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | Rabbit | Minimal irritation |
| Epoxy Resin | Rabbit | Mild irritant |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | Rabbit | Mild irritant |

**Serious Eye Damage/Irritation**

| Name | Species | Value |
|---|---|---|
| 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | Rabbit | Mild irritant |
| Epoxy Resin | Rabbit | Moderate irritant |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | Rabbit | Corrosive |

**Sensitization:**

**Skin Sensitisation**

| Name | Species | Value |
|---|---|---|
| 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | Mouse | Sensitising |
| Epoxy Resin | Human and animal | Sensitising |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | Guinea pig | Not classified |

**Respiratory Sensitisation**

| Name | Species | Value |
|---|---|---|
| Epoxy Resin | Human | Not classified |

**Germ Cell Mutagenicity**

| Name | Route | Value |
|---|---|---|
| 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | In vivo | Not mutagenic |
| 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Epoxy Resin | In vivo | Not mutagenic |
| Epoxy Resin | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | In vivo | Some positive data exist, but the data are not sufficient for classification |

**Carcinogenicity**

| Name | Route | Species | Value |
|---|---|---|---|
| Epoxy Resin | Dermal | Mouse | Some positive data exist, but the data are not sufficient for classification |

| | | | |
|---|---|---|---|
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | Dermal | Mouse | Not carcinogenic |

## Reproductive Toxicity

### Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|
| 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | Ingestion | Not classified for development | Rat | NOAEL 300 mg/kg/day | during gestation |
| Epoxy Resin | Ingestion | Not classified for female reproduction | Rat | NOAEL 750 mg/kg/day | 2 generation |
| Epoxy Resin | Ingestion | Not classified for male reproduction | Rat | NOAEL 750 mg/kg/day | 2 generation |
| Epoxy Resin | Dermal | Not classified for development | Rabbit | NOAEL 300 mg/kg/day | during organogenesis |
| Epoxy Resin | Ingestion | Not classified for development | Rat | NOAEL 750 mg/kg/day | 2 generation |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | Ingestion | Not classified for female reproduction | Rat | NOAEL 1 000 mg/kg/day | 1 generation |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | Ingestion | Not classified for male reproduction | Rat | NOAEL 1 000 mg/kg/day | 1 generation |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | Ingestion | Not classified for development | Rat | NOAEL 3 000 mg/kg/day | during organogenesis |

## Target Organ(s)

### Specific Target Organ Toxicity - single exposure

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

### Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|---|
| 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | Ingestion | kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 100 mg/kg/day | 90 days |
| 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | Ingestion | heart \| endocrine system \| gastrointestinal tract \| bone, teeth, nails, and/or hair \| hematopoietic system \| liver \| immune system \| nervous system \| vascular system \| skin \| muscles \| eyes \| respiratory system | Not classified | Rat | NOAEL 600 mg/kg/day | 90 days |
| Epoxy Resin | Dermal | liver | Not classified | Rat | NOAEL 1 000 mg/kg/day | 2 years |
| Epoxy Resin | Dermal | nervous system | Not classified | Rat | NOAEL 1 000 mg/kg/day | 13 weeks |
| Epoxy Resin | Ingestion | auditory system \| heart \| endocrine system \| hematopoietic system \| liver \| eyes \| kidney and/or | Not classified | Rat | NOAEL 1 000 mg/kg/day | 28 days |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | bladder | | | | |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | Ingestion | heart \| endocrine system \| bone, teeth, nails, and/or hair \| hematopoietic system \| liver \| immune system \| nervous system \| kidney and/or bladder \| respiratory system | Not classified | Rat | NOAEL 1 000 mg/kg/day | 28 days |

**Aspiration Hazard**
For the component/components, either no data are currently available or the data are 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.**

## SECTION 12: Ecological information

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

**12.1. Toxicity**

**Acute aquatic hazard:**
GHS Acute 3: Harmful to aquatic life.

**Chronic aquatic hazard:**
GHS Chronic 3: Harmful to aquatic life with long lasting effects.

No product test data available.

| Material | CAS Nbr | Organism | Type | Exposure | Test endpoint | Test result |
|---|---|---|---|---|---|---|
| 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | 30583-72-3 | Activated sludge | Experimental | 3 hours | NOEC | 1 000 mg/l |
| 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | 30583-72-3 | Green algae | Experimental | 72 hours | EC50 | >100 mg/l |
| 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | 30583-72-3 | Rainbow trout | Experimental | 96 hours | LC50 | 11,5 mg/l |
| Epoxy Resin | 25068-38-6 | Activated sludge | Estimated | 3 hours | IC50 | >100 mg/l |
| Epoxy Resin | 25068-38-6 | Green algae | Estimated | 72 hours | EC50 | >11 mg/l |
| Epoxy Resin | 25068-38-6 | Rainbow trout | Estimated | 96 hours | LC50 | 2 mg/l |
| Epoxy Resin | 25068-38-6 | Water flea | Estimated | 48 hours | EC50 | 1,8 mg/l |

| | | | | | | |
|---|---|---|---|---|---|---|
| Epoxy Resin | 25068-38-6 | Green algae | Estimated | 72 hours | NOEC | 4,2 mg/l |
| Epoxy Resin | 25068-38-6 | Water flea | Estimated | 21 days | NOEC | 0,3 mg/l |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | 2530-83-8 | Common Carp | Experimental | 96 hours | LC50 | 55 mg/l |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | 2530-83-8 | Green algae | Experimental | 96 hours | ErC50 | 350 mg/l |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | 2530-83-8 | Invertebrate | Experimental | 48 hours | LC50 | 324 mg/l |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | 2530-83-8 | Green algae | Experimental | 96 hours | NOEC | 130 mg/l |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | 2530-83-8 | Water flea | Experimental | 21 days | NOEC | 100 mg/l |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | 2530-83-8 | Activated sludge | Experimental | 3 hours | EC50 | >100 mg/l |

### 12.2. Persistence and degradability

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | 30583-72-3 | Experimental Biodegradation | 28 days | BOD | 0.1 %BOD/ThOD | OECD 301D - Closed bottle test |
| Epoxy Resin | 25068-38-6 | Estimated Biodegradation | 28 days | BOD | 5 %BOD/COD | OECD 301F - Manometric respirometry |
| Epoxy Resin | 25068-38-6 | Estimated Hydrolysis | | Hydrolytic half-life | 117 hours (t 1/2) | |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | 2530-83-8 | Experimental Biodegradation | 28 days | Dissolv. Organic Carbon Deplet | 37 %removal of DOC | EC C.4.A. DOC Die-Away Test |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | 2530-83-8 | Experimental Hydrolysis | | Hydrolytic half-life (pH 7) | 6.5 hours (t 1/2) | OECD 111 Hydrolysis func of pH |

### 12.3 : Bioaccumulative potential

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | 30583-72-3 | Experimental Bioconcentration | | Log Kow | 3.84 | |
| Epoxy Resin | 25068-38-6 | Estimated Bioconcentration | | Log Kow | 3.242 | |
| [3-(2,3-epoxypropoxy)propyl]trimethoxysilane | 2530-83-8 | Experimental Bioconcentration | | Log Kow | 0.5 | Episuite™ |

### 12.4. Mobility in soil

Please contact manufacturer for more details

**12.5 Other adverse effects**
No information available.

## SECTION 13: Disposal considerations

**13.1. Disposal methods**
Product must only be disposed of by an authorized/permitted waste disposal contractor or incinerated in an industrial or commercial facility in the presence of a combustible material.

## SECTION 14: Transport Information

Compliance is required to South African Transport Information Road Traffic Act & Regulations and Railroad regulations, IATA Standards for airfreight and Maritime standards for ocean freight.

## SECTION 15: Regulatory information

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

**Global inventory status**
Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. 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.

## SECTION 16: Other information

**Revision information:**
Section 6: Accidental release personal information information was modified.
Section 7: Conditions safe storage 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 8: Skin protection - recommended gloves information information was modified.
Section 8: Skin protection - recommended gloves text information was added.
Section 8: Skin protection - recommended gloves text information was deleted.

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

**3M South Africa SDSs are available at www.3m.co.za**

# Safety Data Sheet



| | | | |
|---|---|---|---|
| **Document group:** | 05-6783-4 | **Version number:** | 7.00 |
| **Issue Date:** | 25/08/2025 | **Supersedes date:** | 30/06/2025 |

This Safety Data Sheet has been prepared in accordance with the South African National Standard SANS 10234:2008.

## SECTION 1: Identification

**1.1. Product identifier**
3M™ Scotch-Weld™ Epoxy Adhesive DP105 Clear, Part A

**1.2. Recommended use and restrictions on use**

**Recommended use**
Part A of 2-Component Epoxy Adhesive, Structural adhesive.

**1.3. Supplier's details**

| | |
|---|---|
| **Address:** | 3M South Africa (Pty) Ltd, Private Bag X926, Rivonia 2128 |
| **Telephone:** | 011 806 2000 |
| **E Mail:** | Not available. |
| **Website:** | www.3m.co.za |

**1.4. Emergency telephone number**
011 806 2000

## SECTION 2: Hazard identification

**2.1. Classification of the substance or mixture**
Acute Toxicity (oral): Category 4.
Skin Corrosion/Irritation: Category 3.
Skin Sensitizer: Category 1.
Acute Aquatic Toxicity: Category 3.
Chronic Aquatic Toxicity: Category 3.

**2.2. Label elements**

**Signal word**
Warning

**Symbols**
Exclamation mark |

**Pictograms**

**HAZARD STATEMENTS:**

| | |
|---|---|
| H302 | Harmful if swallowed. |
| H316 | Causes mild skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H412 | Harmful to aquatic life with long lasting effects. |

**PRECAUTIONARY STATEMENTS**

**Prevention:**

| | |
|---|---|
| P280E | Wear protective gloves. |

**Response:**

| | |
|---|---|
| P333 + P313 | If skin irritation or rash occurs: Get medical advice/attention. |

**2.3. Other hazards**

Persons previously sensitised to amines may develop a cross-sensitisation reaction to certain other amines. Eye damage/irrit. class not applied based on test data in similar mix A similar mixture has been tested for eye damage/irritation and the test results do not meet the criteria for classification. Skin corrosion/irritation class. based on test data in similar mix A similar mixture has been tested for skin corrosion/irritation and the test results are reflected in the assigned classification.

## SECTION 3: Composition/information on ingredients

This material is a mixture.

| Ingredient | CAS Nbr | % by Wt |
|---|---|---|
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | 72244-98-5 | 85 - 100 |
| TRIETHYLENETETRAMINE, PROPOXYLATED | 26950-63-0 | 1 - 10 |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | 3033-62-3 | < 5 |
| 1,8-Diazabicyclo[5.4.0]undec-7-ene | 6674-22-2 | < 3 |
| Triethylenetetramine | 112-24-3 | < 3 |

## 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**

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. Suitable 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 |
|---|---|
| Carbon monoxide. | During combustion. |
| Carbon dioxide. | During combustion. |
| Oxides of sulphur. | During combustion. |
| Toxic vapour, gas, particulate. | During combustion. |

**5.3. Special protective actions 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**
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 vapors, 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 in accordance with applicable local/regional/national/international regulations.

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling**
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.

**7.2. Conditions for safe storage including any incompatibilities**
No special storage requirements.

## 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 |
|---|---|---|---|---|
| Triethylenetetramine | 112-24-3 | AIHA | TWA:6 mg/m3(1 ppm) | SKIN |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | 3033-62-3 | ACGIH | TWA:0.05 ppm;STEL:0.15 ppm | Danger of cutaneous absorption |

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
South Africa CLs : South Africa. Control Limits. Regulations for Hazardous Chemical Substances, Table 1
South Africa RELs : South Africa. Recommended Exposure Limits (RELs) Regulations for Hazardous Chemical Substances, Table 2
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

**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**
None required.

**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: Polymer laminate

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.

## SECTION 9: Physical and chemical properties

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

| | |
|---|---|
| **Physical state** | Liquid. |
| **Colour** | Colorless |
| **Odor** | Strong Mercaptan |
| **Odour threshold** | *No data available.* |
| **pH** | *Not applicable.* |
| **Melting point/Freezing point** | *Not applicable.* |
| **Boiling point/Initial boiling point/Boiling range** | >=93,3 ºC |
| **Flash point** | >=93,3 ºC [*Test Method:*Closed Cup] |
| **Evaporation rate** | *No data available.* |
| **Flammability** | Not applicable. |
| **Flammable Limits(LEL)** | *No data available.* |
| **Flammable Limits(UEL)** | *No data available.* |
| **Vapour pressure** | <=13,3 Pa |
| **Relative Vapor Density** | *No data available.* |
| **Density** | 1,15 g/ml |
| **Relative density** | 1,15 [*Ref Std:*WATER=1] |
| **Water solubility** | Nil |
| **Solubility- non-water** | *No data available.* |
| **Partition coefficient: n-octanol/water** | *No data available.* |
| **Autoignition temperature** | *No data available.* |
| **Decomposition temperature** | *No data available.* |
| **Kinematic Viscosity** | 10 435 mm²/sec |
| **Volatile organic compounds (VOC)** | *No data available.* |
| **Percent volatile** | *No data available.* |
| **VOC less H2O & exempt solvents** | < 20 g/l [*Test Method:*calculated SCAQMD rule 443.1] [*Details:*when used as intended with Part B] |
| **VOC less H2O & exempt solvents** | 1,5 % [*Test Method:*calculated SCAQMD rule 443.1] [*Details:*when used as intended with Part B] |
| **VOC less H2O & exempt solvents** | <= 35 g/l [*Test Method:*calculated SCAQMD rule 443.1] [*Details:*as supplied] |
| **Molecular weight** | *No data available.* |

| | |
|---|---|
| **Particle Characteristics** | *Not applicable.* |

## SECTION 10: Stability and reactivity

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

**10.2 Chemical stability**
Stable.

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

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

**10.5 Incompatible materials**
None known.

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

**11.1 Information on Toxicological effects**

**Signs and Symptoms of Exposure**

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

**Inhalation**
Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

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

**Eye contact**
Contact with the eyes during product use is not expected to result in significant irritation.

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

**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 | Inhalation-Vapor(4 hr) | | No data available; calculated ATE >50 mg/l |
| Overall product | Ingestion | | No data available; calculated ATE >300 - =2 000 mg/kg |
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | Dermal | Rabbit | LD50 > 10 200 mg/kg |
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | Ingestion | Rat | LD50 2 600 mg/kg |
| TRIETHYLENETETRAMINE, PROPOXYLATED | Dermal | Rat | LD50 2 150 mg/kg |
| TRIETHYLENETETRAMINE, PROPOXYLATED | Ingestion | Rat | LD50 4 500 mg/kg |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | Dermal | Rabbit | LD50 311 mg/kg |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 3,4 mg/l |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | Inhalation-Vapor (4 hours) | Rat | LC50 > 2,2 mg/l |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | Ingestion | Rat | LD50 571 mg/kg |
| Triethylenetetramine | Dermal | Rat | LD50 1 465 mg/kg |
| Triethylenetetramine | Ingestion | Rat | LD50 1 591 mg/kg |
| 1,8-Diazabicyclo[5.4.0]undec-7-ene | Dermal | Rabbit | LD50 1 233 mg/kg |
| 1,8-Diazabicyclo[5.4.0]undec-7-ene | Ingestion | Rat | LD50 > 300, < 681 mg/kg |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name | Species | Value |
|---|---|---|
| Overall product | Rabbit | Mild irritant |
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | Rabbit | No significant irritation |
| TRIETHYLENETETRAMINE, PROPOXYLATED | Rabbit | Irritant |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | Rabbit | Corrosive |
| Triethylenetetramine | Rabbit | Corrosive |
| 1,8-Diazabicyclo[5.4.0]undec-7-ene | In vitro data | Corrosive |

**Serious Eye Damage/Irritation**

| Name | Species | Value |
|---|---|---|
| Overall product | Rabbit | Mild irritant |
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | Rabbit | Mild irritant |
| TRIETHYLENETETRAMINE, PROPOXYLATED | Rabbit | Severe irritant |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | Rabbit | Corrosive |
| Triethylenetetramine | Rabbit | Corrosive |
| 1,8-Diazabicyclo[5.4.0]undec-7-ene | similar health hazards | Corrosive |

**Sensitization:**

**Skin Sensitisation**

| Name | Species | Value |
|---|---|---|
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | Mouse | Sensitising |
| TRIETHYLENETETRAMINE, PROPOXYLATED | Mouse | Sensitising |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | Multiple animal | Not classified |

| | | |
|---|---|---|
| | species | |
| Triethylenetetramine | Guinea pig | Sensitising |

**Respiratory Sensitisation**

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

**Germ Cell Mutagenicity**

| Name | Route | Value |
|---|---|---|
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | In Vitro | Not mutagenic |
| TRIETHYLENETETRAMINE, PROPOXYLATED | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | In Vitro | Not mutagenic |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | In vivo | Not mutagenic |
| Triethylenetetramine | In vivo | Not mutagenic |
| Triethylenetetramine | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| 1,8-Diazabicyclo[5.4.0]undec-7-ene | In Vitro | Not mutagenic |

**Carcinogenicity**

| Name | Route | Species | Value |
|---|---|---|---|
| Triethylenetetramine | Dermal | Mouse | Not carcinogenic |

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

| Name | Route | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|
| TRIETHYLENETETRAMINE, PROPOXYLATED | Ingestion | Not classified for female reproduction | Rat | NOAEL 750 mg/kg/day | premating into lactation |
| TRIETHYLENETETRAMINE, PROPOXYLATED | Ingestion | Not classified for male reproduction | Rat | NOAEL 750 mg/kg/day | 43 days |
| TRIETHYLENETETRAMINE, PROPOXYLATED | Ingestion | Not classified for development | Rat | NOAEL 750 mg/kg/day | premating into lactation |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | Dermal | Not classified for development | Rabbit | NOAEL 12 mg/kg/day | during organogenesis |
| Triethylenetetramine | Dermal | Not classified for development | Rabbit | NOAEL 125 mg/kg/day | during organogenesis |
| Triethylenetetramine | Ingestion | Not classified for development | Rat | NOAEL 750 mg/kg/day | during organogenesis |
| 1,8-Diazabicyclo[5.4.0]undec-7-ene | Ingestion | Not classified for female reproduction | Rat | NOAEL 150 mg/kg/day | premating into lactation |
| 1,8-Diazabicyclo[5.4.0]undec-7-ene | Ingestion | Not classified for male reproduction | Rat | NOAEL 150 mg/kg/day | 29 days |
| 1,8-Diazabicyclo[5.4.0]undec-7-ene | Ingestion | Not classified for development | Rat | NOAEL 150 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 |
|---|---|---|---|---|---|---|
| TRIETHYLENETETRAMINE, PROPOXYLATED | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL not available | |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | Inhalation | respiratory irritation | May cause respiratory irritation | similar health hazards | NOAEL Not available | |
| Triethylenetetramine | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL Not available | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1,8-Diazabicyclo[5.4.0]undec-7-ene | 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 |
|---|---|---|---|---|---|---|
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | Ingestion | hematopoietic system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 75 mg/kg/day | 90 days |
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | Ingestion | liver | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 250 mg/kg/day | 90 days |
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | Ingestion | endocrine system \| heart \| skin \| immune system \| nervous system \| eyes \| kidney and/or bladder \| respiratory system \| vascular system | Not classified | Rat | NOAEL 1 000 mg/kg/day | 90 days |
| TRIETHYLENETETRAMINE, PROPOXYLATED | Ingestion | kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 300 mg/kg/day | 43 days |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | Dermal | skin \| heart \| endocrine system \| gastrointestinal tract \| hematopoietic system \| liver \| immune system \| muscles \| nervous system \| kidney and/or bladder \| respiratory system \| vascular system | Not classified | Rabbit | NOAEL 8 mg/kg/day | 90 days |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | Inhalation | skin \| endocrine system \| eyes \| respiratory system \| heart \| hematopoietic system \| liver \| immune system \| nervous system \| kidney and/or bladder | Not classified | Rat | NOAEL 0,038 mg/l | 14 weeks |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | Ingestion | gastrointestinal tract \| liver \| kidney and/or bladder \| respiratory system | Not classified | Rat | NOAEL 150 mg/kg/day | 7 days |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | Ingestion | heart \| endocrine system \| hematopoietic system \| nervous system | Not classified | Rat | NOAEL 220 mg/kg/day | 7 days |
| 1,8-Diazabicyclo[5.4.0]undec-7-ene | Ingestion | heart \| skin \| endocrine system \| gastrointestinal tract \| bone, teeth, nails, and/or hair \| hematopoietic system \| liver \| immune system \| muscles \| nervous system \| eyes \| | Not classified | Rat | NOAEL 120 mg/kg/day | 90 days |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | kidney and/or bladder \| respiratory system \| vascular system | | | | |

**Aspiration Hazard**
For the component/components, either no data are currently available or the data are 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.**

## SECTION 12: Ecological information

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

**12.1. Toxicity**

**Acute aquatic hazard:**
GHS Acute 3: Harmful to aquatic life.

**Chronic aquatic hazard:**
GHS Chronic 3: Harmful to aquatic life with long lasting effects.

No product test data available.

| Material | CAS Nbr | Organism | Type | Exposure | Test endpoint | Test result |
|---|---|---|---|---|---|---|
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | 72244-98-5 | Activated sludge | Experimental | 3 hours | EC50 | >1 000 mg/l |
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | 72244-98-5 | Green algae | Experimental | 72 hours | EC50 | >733 mg/l |
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | 72244-98-5 | Water flea | Experimental | 48 hours | EC50 | 12 mg/l |
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | 72244-98-5 | Zebra Fish | Experimental | 96 hours | LC50 | 87 mg/l |
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | 72244-98-5 | Green algae | Experimental | 72 hours | NOEC | 338 mg/l |
| Reaction products of pentaerythritol, | 72244-98-5 | Water flea | Experimental | 21 days | NOEC | 3,5 mg/l |

| | | | | | | |
|---|---|---|---|---|---|---|
| propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | | | | | | |
| TRIETHYLENETETRAMINE, PROPOXYLATED | 26950-63-0 | Green algae | Experimental | 72 hours | EC50 | 4,1 mg/l |
| TRIETHYLENETETRAMINE, PROPOXYLATED | 26950-63-0 | Rainbow trout | Experimental | 96 hours | LC50 | >4,1 mg/l |
| TRIETHYLENETETRAMINE, PROPOXYLATED | 26950-63-0 | Water flea | Experimental | 48 hours | EC50 | 48 mg/l |
| TRIETHYLENETETRAMINE, PROPOXYLATED | 26950-63-0 | Green algae | Experimental | 72 hours | ErC10 | 0,11 mg/l |
| TRIETHYLENETETRAMINE, PROPOXYLATED | 26950-63-0 | Activated sludge | Experimental | 3 hours | EC10 | 38 mg/l |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | 3033-62-3 | Activated sludge | Experimental | 30 minutes | EC20 | >720 mg/l |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | 3033-62-3 | Green algae | Experimental | 72 hours | ErC50 | 24 mg/l |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | 3033-62-3 | Water flea | Experimental | 48 hours | EC50 | 102 mg/l |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | 3033-62-3 | Zebra Fish | Experimental | 96 hours | LC50 | 131,2 mg/l |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | 3033-62-3 | Green algae | Experimental | 72 hours | ErC10 | 5 mg/l |
| 1,8-Diazabicyclo[5.4.0]undec-7-ene | 6674-22-2 | Activated sludge | Experimental | 30 minutes | EC20 | 650 mg/l |
| 1,8-Diazabicyclo[5.4.0]undec-7-ene | 6674-22-2 | Bacteria | Experimental | 17 hours | EC10 | 210 mg/l |
| 1,8-Diazabicyclo[5.4.0]undec-7-ene | 6674-22-2 | Golden Orfe | Experimental | 96 hours | LC50 | >=146,6 mg/l |
| 1,8-Diazabicyclo[5.4.0]undec-7-ene | 6674-22-2 | Green algae | Experimental | 72 hours | EC50 | >100 mg/l |
| 1,8-Diazabicyclo[5.4.0]undec-7-ene | 6674-22-2 | Water flea | Experimental | 48 hours | EC50 | 50 mg/l |
| 1,8-Diazabicyclo[5.4.0]undec-7-ene | 6674-22-2 | Green algae | Experimental | 72 hours | EC10 | >100 mg/l |
| 1,8-Diazabicyclo[5.4.0]undec-7-ene | 6674-22-2 | Water flea | Experimental | 21 days | NOEC | 12 mg/l |
| Triethylenetetramine | 112-24-3 | Green algae | Experimental | 72 hours | EC50 | 27,4 mg/l |
| Triethylenetetramine | 112-24-3 | Guppy | Experimental | 96 hours | LC50 | 570 mg/l |
| Triethylenetetramine | 112-24-3 | Water flea | Experimental | 48 hours | EC50 | 37,4 mg/l |
| Triethylenetetramine | 112-24-3 | Green algae | Experimental | 72 hours | NOEC | 0,468 mg/l |
| Triethylenetetramine | 112-24-3 | Water flea | Experimental | 21 days | NOEC | 2,86 mg/l |

### 12.2. Persistence and degradability

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | 72244-98-5 | Experimental Biodegradation | 28 days | CO2 evolution | 5 %CO2 evolution/THCO2 evolution | OECD 301B - Modified sturm or CO2 |
| TRIETHYLENETETRAMINE, PROPOXYLATED | 26950-63-0 | Experimental Biodegradation | 28 days | BOD | 4 %BOD/ThOD | OECD 301F - Manometric respirometry |
| TRIETHYLENETETRAMINE, PROPOXYLATED | 26950-63-0 | Experimental Hydrolysis | | Hydrolytic half-life (pH 7) | >1 years (t 1/2) | OECD 111 Hydrolysis func of pH |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | 3033-62-3 | Experimental Biodegradation | 28 days | BOD | 0 %BOD/ThOD | OECD 301C - MITI test (I) |
| 1,8-Diazabicyclo[5.4.0]undec-7-ene | 6674-22-2 | Experimental Biodegradation | 28 days | BOD | 0 %BOD/ThOD | OECD 301C - MITI test (I) |
| Triethylenetetramine | 112-24-3 | Experimental Biodegradation | 20 days | BOD | 0 %BOD/ThOD | OECD 301D - Closed bottle test |

**12.3 : Bioaccumulative potential**

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | 72244-98-5 | Estimated Bioconcentration | | Log Kow | >1.2 | |
| TRIETHYLENETETRAMINE, PROPOXYLATED | 26950-63-0 | Unknown Bioconcentration | | Log Kow | -2.42 | |
| N,N,N',N'-Tetramethyl-2,2'-oxybis(ethylamine) | 3033-62-3 | Experimental Bioconcentration | | Log Kow | -0.339 | OECD 107 log Kow shke flsk mtd |
| 1,8-Diazabicyclo[5.4.0]undec-7-ene | 6674-22-2 | Experimental BCF - Fish | 42 days | Bioaccumulation factor | <3.6 | OECD305-Bioconcentration |
| Triethylenetetramine | 112-24-3 | Experimental BCF - Fish | 42 days | Bioaccumulation factor | <5.0 | OECD305-Bioconcentration |

**12.4. Mobility in soil**
Please contact manufacturer for more details

**12.5 Other adverse effects**
No information available.

## SECTION 13: Disposal considerations

**13.1. Disposal methods**
Product must only be disposed of by an authorized/permitted waste disposal contractor or incinerated in an industrial or commercial facility in the presence of a combustible material.

## SECTION 14: Transport Information

Compliance is required to South African Transport Information Road Traffic Act & Regulations and Railroad regulations, IATA Standards for airfreight and Maritime standards for ocean freight.

## SECTION 15: Regulatory information

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

**Global inventory status**
Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the 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.

## SECTION 16: Other information

**Revision information:**
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 8: Skin protection - recommended gloves information information was modified.
Section 8: Skin protection - recommended gloves text information was added.
Section 8: Skin protection - recommended gloves text information was deleted.
Section 11: Health Effects - Inhalation information information was modified.

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

**3M South Africa SDSs are available at www.3m.co.za**