



Safety Data Sheet

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Supersedes date: 20/03/2023

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

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

1.1. Product identifier

3M 05900 Bumper Repair Material

Product Identification Numbers

FS-9100-3087-3 FS-9100-5008-7

7000079938 7000033805

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

Identified uses

Automotive.

1.3. Details of the supplier of the safety data sheet

Address: 3M Ireland Limited, The Iveagh Building, The Park, Carrickmines, Dublin 18.
Telephone: +353 1 280 3555
E Mail: tox.uk@mmm.com

Website: www.3M.com

1.4. Emergency telephone number

Emergency medical information: 8am-10pm (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland. Telephone Number: +353 (0)1 809 2166

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:

08-7102-0, 08-7101-2

TRANSPORTATION INFORMATION

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

KIT LABEL

2.1. Classification of the substance or mixture CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:

Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315

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 CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

DANGER.

Symbols

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

Pictograms



Contains:

2,4,6-tris(dimethylaminomethyl)phenol.; Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide; Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol; bis-[4-(2,3-epoxipropoxy)phenyl]propane

HAZARD STATEMENTS:

| | |
|------|---|
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| 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. |
| P280B | Wear protective gloves and eye/face protection. |

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. |
| P310 | Immediately call a POISON CENTRE or doctor/physician. |
| P333 + P313 | If skin irritation or rash occurs: Get medical advice/attention. |

P391 Collect spillage.

For containers not exceeding 125 ml the following Hazard and Precautionary statements may be used:

<=125 ml Hazard statements

| | |
|------|--------------------------------------|
| H318 | Causes serious eye damage. |
| H317 | May cause an allergic skin reaction. |

<=125 ml Precautionary statements

Prevention:

| | |
|-------|---|
| P280B | Wear protective gloves and eye/face protection. |
|-------|---|

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. |
| P310 | Immediately call a POISON CENTRE or doctor/physician. |
| P333 + P313 | If skin irritation or rash occurs: Get medical advice/attention. |

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

EU VOC Directive (2004/42/EC) labelling: 2004/42/EC IIB(b)(250) 000g/l

Revision information:

Section 1: Product identification numbers information was modified.
Section 01: SAP Material Numbers information was modified.



Safety Data Sheet

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| | | | |
|------------------------|------------|-------------------------|------------|
| Document group: | 08-7101-2 | Version number: | 20.01 |
| Revision date: | 06/08/2024 | Supersedes date: | 10/10/2022 |

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

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

1.1. Product identifier

3M(tm) Bumper Repair Material P/N 05900/05901 : Part B

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

Identified uses

Automotive.

1.3. Details of the supplier of the safety data sheet

| | |
|-------------------|---|
| Address: | 3M Ireland Limited, The Iveagh Building, The Park, Carrickmines, Dublin 18. |
| Telephone: | +353 1 280 3555 |
| E Mail: | tox.uk@mmm.com |
| Website: | www.3M.com |

1.4. Emergency telephone number

Emergency medical information: 8am-10pm (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland. Telephone Number: +353 (0)1 809 2166

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

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

CLASSIFICATION:

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

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

WARNING.

Symbols

GHS07 (Exclamation mark) | GHS09 (Environment) |

Pictograms



Ingredients:

| Ingredient | CAS Nbr | EC No. | % by Wt |
|--|-----------|-----------|---------|
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | 9003-36-5 | 500-006-8 | 20 - 50 |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3 | 216-823-5 | 10 - 30 |

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. |

For containers not exceeding 125 ml the following Hazard and Precautionary statements may be used:

<=125 ml Hazard statements

| | |
|------|--------------------------------------|
| H317 | May cause an allergic skin reaction. |
|------|--------------------------------------|

<=125 ml Precautionary statements

Prevention:

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

Response:

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

1% of the mixture consists of components of unknown acute oral toxicity.

Contains 3% of components with unknown hazards to the aquatic environment.

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] |
|--|---|---------|--|
| Limestone | (CAS-No.) 1317-65-3 (EC-No.) 215-279-6 | 30 - 60 | Substance with a national occupational exposure limit |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | (CAS-No.) 9003-36-5 (EC-No.) 500-006-8 | 20 - 50 | Skin Irrit. 2, H315 Skin Sens. 1A, H317 Aquatic Acute 1, H400,M=1 Aquatic Chronic 1, H410,M=1 |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | (CAS-No.) 1675-54-3 (EC-No.) 216-823-5 (REACH-No.) 01-2119456619-26 | 10 - 30 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411 |
| Siloxanes and Silicones, di-Me, reaction products with silica | (CAS-No.) 67762-90-7 | 1 - 5 | Substance not classified as hazardous |
| Surface Treatment | Trade Secret | < 2 | Substance not classified as hazardous |

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-epoxipropoxy)phenyl]propane | (CAS-No.) 1675-54-3 (EC-No.) 216-823-5 | (C >= 5%) Skin Irrit. 2, H315 (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 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

None inherent in this product.

Hazardous Decomposition or By-Products

Substance

Aldehydes.
Carbon monoxide
Carbon dioxide.

Condition

During combustion.
During combustion.
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

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. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. 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

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

Protect from sunlight. Store away from heat. Store away from oxidising agents. Store away from areas where product may come into contact with food or pharmaceuticals.

7.3. Specific end use(s)

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

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

| Ingredient | CAS Nbr | Agency | Limit type | Additional comments |
|-------------------|----------------|---------------|---|----------------------------|
| Limestone | 1317-65-3 | Ireland OELs | TWA(Total inhalable dust)(8 hours):10 mg/m ³ ;TWA(as respirable dust)(8 hours):4 mg/m ³ | |

Ireland OELs : Ireland. OELs
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.

Recommended monitoring procedures:Information on recommended monitoring procedures can be obtained from Indust. Inspect./Ministry (IE)

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. Provide appropriate local exhaust ventilation for cutting, grinding, sanding or machining.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

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

Indirect vented goggles.

Applicable Norms/Standards

Use eye protection conforming to EN 166

Skin/hand protection

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

results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. 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 (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection

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

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

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

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 | Solid. |
| Specific Physical Form: | Paste |
| Colour | Black |
| Odor | Typical Epoxy |
| Odour threshold | <i>No data available.</i> |
| Melting point/freezing point | <i>No data available.</i> |
| Boiling point/boiling range | <i>Not applicable.</i> |
| Flammability | Not applicable. |
| Flammable Limits(LEL) | <i>Not applicable.</i> |
| Flammable Limits(UEL) | <i>Not applicable.</i> |
| Flash point | ≥150 °C |
| Autoignition temperature | <i>Not applicable.</i> |
| Decomposition temperature | <i>No data available.</i> |
| pH | <i>substance/mixture is non-soluble (in water)</i> |
| Kinematic Viscosity | 267 mm ² /sec |
| Water solubility | Nil |
| Solubility- non-water | <i>No data available.</i> |
| Partition coefficient: n-octanol/water | <i>No data available.</i> |
| Vapour pressure | <i>Not applicable.</i> |
| Density | <i>No data available.</i> |
| Relative density | 1.5 - 1.57 [Ref Std: WATER=1] |
| Relative Vapour Density | <i>Not applicable.</i> |

| | |
|--------------------------|------------------------|
| Particle Characteristics | <i>Not applicable.</i> |
|--------------------------|------------------------|

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds
Evaporation rate
Percent volatile

No data available.
Not applicable.
< 1 % weight

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.

10.5 Incompatible materials

Strong oxidising agents.

10.6 Hazardous decomposition products

Substance

None known.

Condition

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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 | Inhalation-Dust/Mist(4 hr) | | No data available; calculated ATE >12.5 mg/l |
| Overall product | Ingestion | | No data available; calculated ATE >5,000 mg/kg |
| Limestone | Dermal | Rat | LD50 > 2,000 mg/kg |
| Limestone | Inhalation-Dust/Mist (4 hours) | Rat | LC50 3 mg/l |
| Limestone | Ingestion | Rat | LD50 6,450 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-epoxypropane and phenol | Ingestion | Rat | LD50 > 5,000 mg/kg |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Dermal | Rat | LD50 > 1,600 mg/kg |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Ingestion | Rat | LD50 > 1,000 mg/kg |
| Siloxanes and Silicones, di-Me, reaction products with silica | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| Siloxanes and Silicones, di-Me, reaction products with silica | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 0.691 mg/l |
| Siloxanes and Silicones, di-Me, reaction products with silica | Ingestion | Rat | LD50 > 5,110 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|--|---------|---------------------------|
| Limestone | Rabbit | No significant irritation |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | Rabbit | Irritant |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Rabbit | Mild irritant |
| Siloxanes and Silicones, di-Me, reaction products with silica | Rabbit | No significant irritation |

Serious Eye Damage/Irritation

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

Skin Sensitisation

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

| | | |
|---|------------------|----------------|
| | and animal | |
| Siloxanes and Silicones, di-Me, reaction products with silica | Human and animal | Not classified |

Respiratory Sensitisation

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

Germ Cell Mutagenicity

| Name | Route | Value |
|--|----------|--|
| 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 |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | In vivo | Not mutagenic |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Siloxanes and Silicones, di-Me, reaction products with silica | In Vitro | Not mutagenic |

Carcinogenicity

| Name | Route | Species | Value |
|---|----------------|---------|--|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Dermal | Mouse | Some positive data exist, but the data are not sufficient for classification |
| Siloxanes and Silicones, di-Me, reaction products with silica | Not specified. | 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 |
|---|-----------|--|---------|-----------------------|------------------------------|
| Limestone | Ingestion | Not classified for development | Rat | NOAEL 625 mg/kg/day | premating & during gestation |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Ingestion | Not classified for female reproduction | Rat | NOAEL 750 mg/kg/day | 2 generation |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Ingestion | Not classified for male reproduction | Rat | NOAEL 750 mg/kg/day | 2 generation |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Dermal | Not classified for development | Rabbit | NOAEL 300 mg/kg/day | during organogenesis |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Ingestion | Not classified for development | Rat | NOAEL 750 mg/kg/day | 2 generation |
| Siloxanes and Silicones, di-Me, reaction products with silica | Ingestion | Not classified for female reproduction | Rat | NOAEL 509 mg/kg/day | 1 generation |
| Siloxanes and Silicones, di-Me, reaction products with silica | Ingestion | Not classified for male reproduction | Rat | NOAEL 497 mg/kg/day | 1 generation |
| Siloxanes and Silicones, di-Me, reaction products with silica | Ingestion | Not classified for development | Rat | NOAEL 1,350 mg/kg/day | during organogenesis |

Target Organ(s)

Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|--|------------|------------------------|---|----------------|---------------------|-------------------|
| Limestone | Inhalation | respiratory system | Not classified | Rat | NOAEL 0.812 mg/l | 90 minutes |
| Formaldehyde, oligomeric reaction products with 1- | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for | similar health | NOAEL not available | |

| | | | | | | |
|------------------------------------|--|--|----------------|---------|--|--|
| chloro-2,3-epoxypropane and phenol | | | classification | hazards | | |
|------------------------------------|--|--|----------------|---------|--|--|

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|--|------------|---|----------------|---------|-----------------------|-----------------------|
| Limestone | Inhalation | respiratory system | Not classified | Human | NOAEL Not available | occupational exposure |
| 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 |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Dermal | liver | Not classified | Rat | NOAEL 1,000 mg/kg/day | 2 years |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Dermal | nervous system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 13 weeks |
| bis-[4-(2,3-epoxipropoxy)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 |
| Siloxanes and Silicones, di-Me, reaction products with silica | Inhalation | respiratory system silicosis | Not classified | Human | NOAEL Not available | occupational exposure |

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 EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

| Material | CAS # | Organism | Type | Exposure | Test endpoint | Test result |
|-----------|-----------|-------------|-----------|----------|---------------|-------------|
| Limestone | 1317-65-3 | Green algae | Estimated | 72 hours | EC50 | >100 mg/l |

| | | | | | | |
|--|------------|------------------|---|----------|-------|-----------|
| Limestone | 1317-65-3 | Rainbow trout | Estimated | 96 hours | LC50 | >100 mg/l |
| Limestone | 1317-65-3 | Water flea | Estimated | 48 hours | EC50 | >100 mg/l |
| Limestone | 1317-65-3 | Green algae | Estimated | 72 hours | EC10 | >100 mg/l |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | 9003-36-5 | Green algae | Experimental | 72 hours | ErC50 | >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 | 0.55 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 |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3 | Activated sludge | Analogous Compound | 3 hours | IC50 | >100 mg/l |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3 | Rainbow trout | Estimated | 96 hours | LC50 | 2 mg/l |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3 | Water flea | Estimated | 48 hours | EC50 | 1.8 mg/l |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3 | Green algae | Experimental | 72 hours | ErC50 | >11 mg/l |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3 | Green algae | Experimental | 72 hours | NOEC | 4.2 mg/l |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3 | Water flea | Experimental | 21 days | NOEC | 0.3 mg/l |
| Siloxanes and Silicones, di-Me, reaction products with silica | 67762-90-7 | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |

12.2. Persistence and degradability

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|--|-----------|------------------------------------|----------|-----------------------------|------------------|------------------------------------|
| Limestone | 1317-65-3 | Data not available or insufficient | N/A | N/A | N/A | N/A |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | 9003-36-5 | Experimental Biodegradation | 28 days | BOD | 0 %BOD/ThOD | EC C.4.E Closed Bottle Test |
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | 9003-36-5 | Analogous Compound Hydrolysis | | Hydrolytic half-life (pH 7) | 86 hours (t 1/2) | OECD 111 Hydrolysis function of pH |

| | | | | | | |
|---|------------|-----------------------------------|---------|-----------------------------|-------------------|-------------------------------------|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3 | Experimental Biodegradation | 28 days | BOD | 5 %BOD/COD | OECD 301F - Manometric respirometry |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3 | Experimental Hydrolysis | | Hydrolytic half-life (pH 7) | 117 hours (t 1/2) | OECD 111 Hydrolysis func of pH |
| Siloxanes and Silicones, di-Me, reaction products with silica | 67762-90-7 | Data not available - insufficient | N/A | N/A | N/A | N/A |

12.3 : Bioaccumulative potential

| Material | Cas No. | Test type | Duration | Study Type | Test result | Protocol |
|--|------------|---|----------|------------|-------------|------------------------------|
| Limestone | 1317-65-3 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| 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 |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3 | Experimental Bioconcentration | | Log Kow | 3.242 | OECD 117 log Kow HPLC method |
| Siloxanes and Silicones, di-Me, reaction products with silica | 67762-90-7 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |

12.4. Mobility in soil

| Material | Cas No. | Test type | Study Type | Test result | Protocol |
|--|-----------|-------------------------------|------------|-------------|--------------------------------|
| 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 |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3 | Modeled Mobility in Soil | Koc | 450 l/kg | Episuite™ |

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. Endocrine disrupting properties

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

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate 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
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 | UN3077 | UN3077 | UN3077 |
| 14.2 UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(EPOXY RESIN) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(EPOXY RESIN) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(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 | M7 | 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**

bis-[4-(2,3-epoxipropoxy)phenyl]propane

CAS Nbr

1675-54-3

Classification

Gr. 3: Not classifiable

RegulationInternational 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 through Annex XVII of REACH regulation to restrictions on the manufacture, placing on the market and use when present in certain dangerous substances, mixtures and articles. Users of this product are required to comply with the restrictions placed upon it by the aforementioned provision.

bis-[4-(2,3-epoxipropoxy)phenyl]propane

1675-54-3

Global inventory status

Contact 3M for more information.

DIRECTIVE 2012/18/EU

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

No chemicals listed

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out for this mixture. Chemical safety assessments for the contained substances may have been carried out by the registrants of the substances in accordance with Regulation (EC) No 1907/2006, as amended.

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. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |

Revision information:

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

Section 09: Flammability information information was added.

Section 09: Particle Characteristics N/A information was added.

Section 9: Vapour density value 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:Biocumulative potential 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. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into the European Union, you are responsible for all regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration.

3M Ireland MSDSs are available at www.3M.com



Safety Data Sheet

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| | | | |
|------------------------|------------|-------------------------|------------|
| Document group: | 08-7102-0 | Version number: | 10.03 |
| Revision date: | 02/08/2024 | Supersedes date: | 10/10/2022 |

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

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

1.1. Product identifier

3M Bumper Repair Material P/N 05900/05901 : Part A

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

Identified uses

Automotive.

1.3. Details of the supplier of the safety data sheet

| | |
|-------------------|---|
| Address: | 3M Ireland Limited, The Iveagh Building, The Park, Carrickmines, Dublin 18. |
| Telephone: | +353 1 280 3555 |
| E Mail: | tox.uk@mmm.com |
| Website: | www.3M.com |

1.4. Emergency telephone number

Emergency medical information: 8am-10pm (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland. Telephone Number: +353 (0)1 809 2166

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

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

CLASSIFICATION:

Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315
Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318
Skin Sensitization, Category 1B - Skin Sens. 1B; H317
Hazardous to the Aquatic Environment (Chronic), Category 3 - Aquatic Chronic 3; H412

For full text of H phrases, see Section 16.

2.2. Label elements

CLP REGULATION (EC) No 1272/2008**SIGNAL WORD**

DANGER.

Symbols

GHS05 (Corrosion) | GHS07 (Exclamation mark) |

Pictograms**Ingredients:**

| Ingredient | CAS Nbr | EC No. | % by Wt |
|---|------------|-----------|----------|
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | 72244-98-5 | 701-196-7 | 80 - 100 |
| 2,4,6-tris(dimethylaminomethyl)phenol | 90-72-2 | 202-013-9 | < 5 |

HAZARD STATEMENTS:

| | |
|------|--|
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H317 | May cause an allergic skin reaction. |
| H412 | Harmful to aquatic life with long lasting effects. |

PRECAUTIONARY STATEMENTS**Prevention:**

| | |
|-------|---|
| P280B | Wear protective gloves and eye/face protection. |
|-------|---|

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. |
| P310 | Immediately call a POISON CENTRE or doctor/physician. |
| P333 + P313 | If skin irritation or rash occurs: Get medical advice/attention. |

Contains 5% of components with unknown hazards to the aquatic environment.

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] |
|---|--|----------|--|
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | (CAS-No.) 72244-98-5 (EC-No.) 701-196-7 | 80 - 100 | Aquatic Chronic 3, H412 Skin Sens. 1B, H317 |
| 2,4,6-tris(dimethylaminomethyl)phenol | (CAS-No.) 90-72-2 (EC-No.) 202-013-9 (REACH-No.) 01-2119560597-27 | < 5 | Acute Tox. 4, H302 Skin Corr. 1C, H314 Eye Dam. 1, H318 |
| Siloxanes and Silicones, di-Me, reaction products with silica | (CAS-No.) 67762-90-7 | 1 - 5 | Substance not classified as hazardous |
| Titanium dioxide | (CAS-No.) 13463-67-7 (EC-No.) 236-675-5 (REACH-No.) 01-2119489379-17 | < 1 | Carc. 2, H351 (inhalation) |

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

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

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

Skin contact

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

Eye contact

Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately 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 CLP classification include:

Irritation to the skin (localized redness, swelling, itching, and dryness). Allergic skin reaction (redness, swelling, blistering, and itching). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of 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

None inherent in this product.

Hazardous Decomposition or By-Products

Substance

Carbon monoxide
Carbon dioxide.

Condition

During combustion.
During combustion.

5.3. Advice for fire-fighters

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. Sweep up. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. 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 handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Use personal protective equipment (eg. gloves, respirators...) as required.

7.2. Conditions for safe storage including any incompatibilities

Protect from sunlight. Store away from heat. Store away from areas where product may come into contact with food or pharmaceuticals.

7.3. Specific end use(s)

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

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

| Ingredient | CAS Nbr | Agency | Limit type | Additional comments |
|-------------------|----------------|---------------|---|----------------------------|
| Titanium dioxide | 13463-67-7 | Ireland OELs | TWA(Total inhalable dust)(8 hours):10 mg/m ³ ;TWA(as respirable dust)(8 hours):4 | |

mg/m³

Ireland OELs : Ireland. OELs
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.

Derived no effect level (DNEL)

| Ingredient | Degradation Product | Population | Human exposure pattern | DNEL |
|--|---------------------|------------|--|------------------------|
| 2,4,6-tris(dimethylaminomethyl) phenol | | Worker | Inhalation, Long-term exposure (8 hours), Systemic effects | 0.31 mg/m ³ |

Predicted no effect concentrations (PNEC)

| Ingredient | Degradation Product | Compartment | PNEC |
|--|---------------------|--------------------------------|-------------|
| 2,4,6-tris(dimethylaminomethyl) phenol | | Freshwater | 0.084 mg/l |
| 2,4,6-tris(dimethylaminomethyl) phenol | | Intermittent releases to water | 0.84 mg/l |
| 2,4,6-tris(dimethylaminomethyl) phenol | | Marine water | 0.0084 mg/l |
| 2,4,6-tris(dimethylaminomethyl) phenol | | Sewage Treatment Plant | 0.2 mg/l |

Recommended monitoring procedures: Information on recommended monitoring procedures can be obtained from Indust. Inspect./Ministry (IE)

8.2. Exposure controls

In addition, refer to the annex for more information.

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. Provide appropriate local exhaust ventilation for cutting, grinding, sanding or machining.

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 166

Skin/hand protection

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

| 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 (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection

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

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

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

Applicable Norms/Standards

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

8.2.3. Environmental exposure controls

Refer to Annex

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|-------------------------------------|---|
| Physical state | Solid. |
| Specific Physical Form: | Paste |
| Colour | White |
| Odor | Mercaptan |
| Odour threshold | No data available. |
| Melting point/freezing point | No data available. |
| Boiling point/boiling range | No data available. |
| Flammability | Not applicable. |
| Flammable Limits(LEL) | No data available. |
| Flammable Limits(UEL) | No data available. |
| Flash point | 200 °C |
| Autoignition temperature | No data available. |
| Decomposition temperature | No data available. |
| pH | substance/mixture is non-soluble (in water) |
| Kinematic Viscosity | No data available. |
| Water solubility | Nil |
| Solubility- non-water | No data available. |

| | |
|--|-------------------------------|
| Partition coefficient: n-octanol/water | No data available. |
| Vapour pressure | No data available. |
| Density | No data available. |
| Relative density | 1.1 - 1.17 [Ref Std: WATER=1] |
| Relative Vapour Density | No data available. |
| Particle Characteristics | Not applicable. |

9.2. Other information

9.2.2 Other safety characteristics

| | |
|-------------------------------|--------------------|
| EU Volatile Organic Compounds | No data available. |
| Evaporation rate | No data available. |
| Percent volatile | 1 % |

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.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

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

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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. Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, nose and throat pain. May cause additional health effects (see below).

Skin contact

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

Eye contact

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. Dust created by cutting, grinding, sanding, or machining may cause eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion

May be harmful if swallowed.

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

Additional Health Effects:

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

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 |
| 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 |
| Siloxanes and Silicones, di-Me, reaction products with silica | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| Siloxanes and Silicones, di-Me, reaction products with silica | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 0.691 mg/l |
| Siloxanes and Silicones, di-Me, reaction products with silica | Ingestion | Rat | LD50 > 5,110 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 |
| Titanium dioxide | Dermal | Rabbit | LD50 > 10,000 mg/kg |
| Titanium dioxide | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 6.82 mg/l |
| Titanium dioxide | Ingestion | Rat | LD50 > 10,000 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|---|---------|---------------------------|
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | Rabbit | No significant irritation |
| Siloxanes and Silicones, di-Me, reaction products with silica | Rabbit | No significant irritation |
| 2,4,6-tris(dimethylaminomethyl)phenol | Rabbit | Corrosive |
| Titanium dioxide | Rabbit | No significant irritation |

Serious Eye Damage/Irritation

| Name | Species | Value |
|---|---------|---------------------------|
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | Rabbit | Mild irritant |
| Siloxanes and Silicones, di-Me, reaction products with silica | Rabbit | No significant irritation |
| 2,4,6-tris(dimethylaminomethyl)phenol | Rabbit | Corrosive |
| Titanium dioxide | Rabbit | No significant irritation |

Skin Sensitisation

| Name | Species | Value |
|---|------------------|----------------|
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | Mouse | Sensitising |
| Siloxanes and Silicones, di-Me, reaction products with silica | Human and animal | Not classified |
| 2,4,6-tris(dimethylaminomethyl)phenol | Guinea pig | Not classified |
| Titanium dioxide | Human and animal | 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 |
|---|----------|---------------|
| Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | In Vitro | Not mutagenic |
| Siloxanes and Silicones, di-Me, reaction products with silica | In Vitro | Not mutagenic |
| 2,4,6-tris(dimethylaminomethyl)phenol | In Vitro | Not mutagenic |
| Titanium dioxide | In Vitro | Not mutagenic |
| Titanium dioxide | In vivo | Not mutagenic |

Carcinogenicity

| Name | Route | Species | Value |
|---|----------------|-------------------------|--|
| Siloxanes and Silicones, di-Me, reaction products with silica | Not specified. | Mouse | Some positive data exist, but the data are not sufficient for classification |
| Titanium dioxide | Ingestion | Multiple animal species | Not carcinogenic |
| Titanium dioxide | Inhalation | Rat | Carcinogenic. |

Reproductive Toxicity

Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test result | Exposure Duration |
|---|-----------|--|---------|-----------------------|----------------------|
| Siloxanes and Silicones, di-Me, reaction products with silica | Ingestion | Not classified for female reproduction | Rat | NOAEL 509 mg/kg/day | 1 generation |
| Siloxanes and Silicones, di-Me, reaction products with silica | Ingestion | Not classified for male reproduction | Rat | NOAEL 497 mg/kg/day | 1 generation |
| Siloxanes and Silicones, di-Me, reaction products with silica | Ingestion | Not classified for development | Rat | NOAEL 1,350 mg/kg/day | during organogenesis |
| 2,4,6-tris(dimethylaminomethyl)phenol | Ingestion | Not classified for male reproduction | Rat | NOAEL 150 mg/kg/day | 2 generation |
| 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 |
|--|------------|------------------------|--|------------------------|---------------------|-------------------|
| 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 | |

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 |
| Siloxanes and Silicones, di-Me, reaction products with silica | Inhalation | respiratory system silicosis | Not classified | Human | NOAEL Not available | occupational exposure |
| 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 |
| Titanium dioxide | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Rat | LOAEL 0.01 mg/l | 2 years |
| Titanium dioxide | Inhalation | pulmonary fibrosis | Not classified | Human | NOAEL Not available | occupational exposure |

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 EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

| Material | CAS # | Organism | Type | Exposure | Test endpoint | Test result |
|---|------------|------------------|---|----------|---------------|-------------|
| 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, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide | 72244-98-5 | Water flea | Experimental | 21 days | NOEC | 3.5 mg/l |
| Siloxanes and Silicones, di-Me, reaction products with silica | 67762-90-7 | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |
| 2,4,6-tris(dimethylaminomethyl)phenol | 90-72-2 | N/A | Experimental | 96 hours | LC50 | 718 mg/l |

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| | | | | | | |
|---------------------------------------|------------|------------------|--------------|----------|------|--------------|
| 2,4,6-tris(dimethylaminomethyl)phenol | 90-72-2 | Common Carp | Experimental | 96 hours | LC50 | >100 mg/l |
| 2,4,6-tris(dimethylaminomethyl)phenol | 90-72-2 | Green algae | Experimental | 72 hours | EC50 | 46.7 mg/l |
| 2,4,6-tris(dimethylaminomethyl)phenol | 90-72-2 | Water flea | Experimental | 48 hours | EC50 | >100 mg/l |
| 2,4,6-tris(dimethylaminomethyl)phenol | 90-72-2 | Green algae | Experimental | 72 hours | NOEC | 6.44 mg/l |
| Titanium dioxide | 13463-67-7 | Activated sludge | Experimental | 3 hours | NOEC | >=1,000 mg/l |
| Titanium dioxide | 13463-67-7 | Diatom | Experimental | 72 hours | EC50 | >10,000 mg/l |
| Titanium dioxide | 13463-67-7 | Fathead minnow | Experimental | 96 hours | LC50 | >100 mg/l |
| Titanium dioxide | 13463-67-7 | Water flea | Experimental | 48 hours | EC50 | >100 mg/l |
| Titanium dioxide | 13463-67-7 | Diatom | Experimental | 72 hours | NOEC | 5,600 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/THC O2 evolution | OECD 301B - Modified Sturm or CO2 |
| Siloxanes and Silicones, di-Me, reaction products with silica | 67762-90-7 | Data not available - insufficient | N/A | N/A | N/A | N/A |
| 2,4,6-tris(dimethylaminomethyl)phenol | 90-72-2 | Experimental Biodegradation | 28 days | BOD | 4 %BOD/ThOD | OECD 301D - Closed bottle test |
| Titanium dioxide | 13463-67-7 | Data not available - insufficient | N/A | N/A | N/A | N/A |

12.3 : Bioaccumulative potential

| Material | Cas No. | 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 | |
| Siloxanes and Silicones, di-Me, reaction products with silica | 67762-90-7 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| 2,4,6-tris(dimethylaminomethyl)phenol | 90-72-2 | Experimental Bioconcentration | | Log Kow | -0.66 | 830.7550 Part. Coef Shake Flask |
| Titanium dioxide | 13463-67-7 | Experimental BCF - Fish | 42 days | Bioaccumulation factor | 9.6 | |

12.4. Mobility in soil

No test data available.

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. Endocrine disrupting properties

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

12.7. Other adverse effects

No information available.

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

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

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate 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
20 01 29* Detergents containing dangerous substances

SECTION 14: Transportation information

Not hazardous for transportation.

| | Ground Transport (ADR) | Air Transport (IATA) | Marine Transport (IMDG) |
|--|--|--|--|
| 14.1 UN number or ID number | No data available. | No data available. | No data available. |
| 14.2 UN proper shipping name | No data available. | No data available. | No data available. |
| 14.3 Transport hazard class(es) | No data available. | No data available. | No data available. |
| 14.4 Packing group | No data available. | No data available. | No data available. |
| 14.5 Environmental hazards | No data available. | No data available. | No data available. |
| 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 | No data available. | No data available. | No data available. |
| IMDG Segregation Code | No data available. | No data available. | No data available. |

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

Titanium dioxide

CAS Nbr

13463-67-7

Classification

Grp. 2B: Possible human carc.

Regulation

International Agency for Research on Cancer

Global inventory status

Contact 3M for more information.

DIRECTIVE 2012/18/EU

Seveso hazard categories, Annex 1, Part 1

None

Seveso named dangerous substances, Annex 1, Part 2

None

Regulation (EU) No 649/2012

No chemicals listed

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out for this mixture. Chemical safety assessments for the contained substances may have been carried out by the registrants of the substances in accordance with Regulation (EC) No 1907/2006, as amended.

SECTION 16: Other information

List of relevant H statements

H302

Harmful if swallowed.

| | |
|-------|--|
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H351i | Suspected of causing cancer by inhalation. |
| H412 | Harmful to aquatic life with long lasting effects. |

Revision information:

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

Section 09: Flammability information information was added.

Section 09: Particle Characteristics N/A information was added.

Section 9: Vapour density value 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.

Annex

| 1. Title | |
|--|---|
| Substance identification | 2,4,6-tris(dimethylaminomethyl)phenol; EC No. 202-013-9; CAS Nbr 90-72-2; |
| Exposure Scenario Name | Formulation |
| Lifecycle Stage | Formulation or re-packing |
| Contributing activities | PROC 08b -Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC 09 -Transfer of substance or mixture into small containers (dedicated filling line, including weighing) ERC 02 -Formulation into mixture |
| Processes, tasks and activities covered | Transfer of substances/mixtures into small containers e.g. tubes , bottles or small reservoirs. Transfers with dedicated controls, including loading, filling, dumping, bagging. |
| 2. Operational conditions and risk management measures | |
| Operating Conditions | Physical state: Liquid. General operating conditions: Air exchange rate:: >= 3 times per hour; Indoor use; Partially open and partially closed process; Processing Temperature:: <= 40 degree Celsius; Task: PROC08b; Duration of exposure per day at workplace [for one worker]: 8 hours/day; Task: PROC09; Duration of exposure per day at workplace [for one worker]: <= 4 hour(s); |
| Risk management measures | Under the operational conditions described above the following risk management measures apply: General risk management measures: Human health: Local exhaust ventilation; Protective Gloves - Chemical resistant. Refer to Section 8 of the SDS for specific glove material.; Environmental: None needed; |
| Waste management measures | No use-specific waste management measures are required for this product. Refer to Section 13 of main SDS for disposal instructions: |

| 3. Prediction of exposure | |
|---------------------------|--|
| Prediction of exposure | Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted. |

| 1. Title | |
|---|--|
| Substance identification | 2,4,6-tris(dimethylaminomethyl)phenol; EC No. 202-013-9; CAS Nbr 90-72-2; |
| Exposure Scenario Name | Industrial Use of Adhesives |
| Lifecycle Stage | Use at industrial sites |
| Contributing activities | PROC 05 -Mixing or blending in batch processes PROC 08a -Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC 10 -Roller application or brushing PROC 13 -Treatment of articles by dipping and pouring ERC 05 -Use at industrial site leading to inclusion into/onto article |
| Processes, tasks and activities covered | Application of product with a roller or brush. Application of product with applicator gun. Mixing operations (open systems). Transfers without dedicated controls, including loading, filling, dumping, bagging. |

| 2. Operational conditions and risk management measures | |
|--|--|
| Operating Conditions | Physical state: Liquid. General operating conditions: Air exchange rate:: >= 3 times per hour; Duration of exposure per day at workplace [for one worker]: <= 4 hour(s); Indoor use; Processing Temperature:: <= 40 degree Celsius; Task: PROC05; Duration of exposure per day at workplace [for one worker]: 8 hours/day; |
| Risk management measures | Under the operational conditions described above the following risk management measures apply: General risk management measures: Human health: Local exhaust ventilation; Protective Gloves - Chemical resistant. Refer to Section 8 of the SDS for specific glove material.; Environmental: None needed; |
| Waste management measures | Do not release to waterways or sewers; |

| 3. Prediction of exposure | |
|---------------------------|--|
| Prediction of exposure | Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted. |

| 1. Title | |
|--|--|
| Substance identification | 2,4,6-tris(dimethylaminomethyl)phenol; EC No. 202-013-9; CAS Nbr 90-72-2; |
| Exposure Scenario Name | Hand-mixing of preparations, e.g. plasters, resins, two-component adhesives. |
| Lifecycle Stage | Widespread use by professional workers |
| Contributing activities | PROC 10 -Roller application or brushing ERC 08c -Widespread use leading to inclusion into/onto article (indoor) |
| Processes, tasks and activities covered | Application of product. |
| 2. Operational conditions and risk management measures | |
| Operating Conditions | Physical state: Liquid. |

| | |
|----------------------------------|--|
| | General operating conditions: Duration of exposure per day at workplace [for one worker]: 8 hours/day; Indoor use; Processing Temperature:: <= 40 degree Celsius; |
| Risk management measures | Under the operational conditions described above the following risk management measures apply: General risk management measures: Human health: Local exhaust ventilation; Protective Gloves - Chemical resistant. Refer to Section 8 of the SDS for specific glove material.; Environmental: None needed; |
| Waste management measures | Do not release directly to waterways; |
| 3. Prediction of exposure | |
| Prediction of exposure | Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted. |

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

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