



Safety Data Sheet

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| | | | |
|---------------------------------------|-------------------|-------------------------|------------|
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| Revision date: | 04/01/2013 | Supersedes date: | 21/05/2012 |
| Transportation version number: | 1.00 (19/11/2010) | | |

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 Scotch-Weld DP-190 Kit (Grey)

Product identification numbers

FS-9100-3383-6 FS-9100-4023-7

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

Structural adhesive.

1.3. Details of the supplier of the substance or mixture

Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.

E Mail: tox.uk@mmm.com

Website: www.3M.com/uk

1.4. Emergency telephone number

+44 (0)1344 858 000

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

24-4377-8, 24-4380-2

TRANSPORTATION INFORMATION

FS-9100-3383-6, FS-9100-4023-7

Component 1

ADR/RID: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. LIMITED QUANTITY, (EPOXY RESIN), 9., III, (--), ADR Classification Code: M7.

IMDG-CODE: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (EPOXY RESIN), 9., III, LIMITED QUANTITY, Marine Pollutant, (EPOXY RESIN), EMS: FA,SF.

ICAO/IATA: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (EPOXY RESIN), 9., III,

3M Scotch-Weld DP-190 Kit (Grey)

fish and tree marking may be required (> 5kg/l).

Component 2

ADR/RID: NOT RESTRICTED FOR ROAD (ADR/RID), (--).

IMDG-CODE: not regulated, LIMITED QUANTITY.

ICAO/IATA: NOT RESTRICTED FOR AIR SHIPMENT.

KIT LABEL

2.2. Label elements

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

DANGER!

Symbols:

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

Pictograms



HAZARD STATEMENTS:

| | |
|------|--|
| H318 | Causes serious eye damage. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H411 | Toxic to aquatic life with long lasting effects. |

PRECAUTIONARY STATEMENTS

Prevention:

| | |
|-------|---|
| P280B | Wear protective gloves and eye/face protection. |
| P273 | Avoid release to the environment. |

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

Disposal:

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

SUPPLEMENTAL INFORMATION

Supplemental Hazard Statements:

| | |
|--------|--|
| EUH205 | Contains epoxy constituents. May produce an allergic reaction. |
|--------|--|

Notes on labelling

For containers <125mL, use Danger! GHS05, GHS07, GHS09; H318, H317, EUH205 and P280B, P305 + P351 + P338, P310, P333 + P313.

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

Symbol(s)



Irritant



Dangerous
for the
environment

Contains:

Consult the component labels for disclosable ingredients.

Risk phrases

| | |
|--------|---|
| R41 | Risk of serious damage to eyes. |
| R38 | Irritating to skin. |
| R43 | May cause sensitisation by skin contact. |
| R51/53 | Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment. |

Safety phrases

| | |
|---------|---|
| S24 | Avoid contact with skin. |
| S37/39A | Wear suitable gloves and eye protection. |
| S26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| S61 | Avoid release to the environment. Refer to special instructions/safety data sheets. |

Special provisions concerning the labelling of certain substances

Contains epoxy resins. See information supplied by manufacturer.

Revision information:

Revision Changes:

Copyright was modified.

Label: Signal Word - Header was added.

Label: Signal Word was added.

Label: CLP Classification was added.

Label: CLP Classification - Header was added.

Label: CLP Environmental Hazard Statements was added.

Label: Graphic was added.

Label: Graphic was added.

Label: Symbol was added.

Label: Symbol was added.

Label: CLP Precautionary - Disposal was added.

Label: CLP Precautionary - Disposal - Header was added.

Label: CLP Precautionary - Prevention was added.

Label: CLP Precautionary - Prevention - Header was added.

Label: CLP Precautionary - Response was added.

Label: CLP Precautionary - Response - Header was added.

Label: Precautionary Statement - Header was added.

Label: CLP Supplemental Hazard Statements was added.

Label: CLP Supplemental Hazard Statements - Header was added.

3M Scotch-Weld DP-190 Kit (Grey)

Label: CLP Supplemental Information - Header was added.
Section 2: Notes on labelling heading was added.
Section 15: Label remarks and EU Detergent was added.
Section 2: 2.2 & 2.3. CLP REGULATION heading was added.
Label: Graphic Text was added.
Label: Graphic was added.
Label: Graphic was added.
Label: Graphic Text was added.
Section 2: Symbol was deleted.
Section 2: Symbols heading was deleted.



Safety Data Sheet

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| | | | |
|---------------------------------------|-------------------|-------------------------|------------|
| Document group: | 24-4377-8 | Version number: | 5.00 |
| Revision date: | 04/01/2013 | Supersedes date: | 21/05/2012 |
| Transportation version number: | 1.00 (19/11/2010) | | |

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 Scotch-Weld DP-190 (Grey)(Part A)

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

Identified uses

Structural adhesive.

1.3. Details of the supplier of the substance or mixture

Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.

E Mail: tox.uk@mmm.com

Website: www.3M.com/uk

1.4. Emergency telephone number

+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:

Serious Eye Damage/Irritation: Category 1.

Skin Corrosion/Irritation: Category 2.

Skin Sensitizer: Category 1.

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

Indication of danger

Irritant; Xi; R41

Irritant; Xi; R38

Sensitizing; R43

For full text of R phrases, see Section 16.

2.2. Label elements

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

DANGER!

Symbols:

GHS05 (Corrosion) | GHS07 (Exclamation mark) |

Pictograms



| Ingredient | CAS Nbr | % by Wt |
|--|------------|---------|
| Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine) | 68911-25-1 | 50 - 60 |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | 4246-51-9 | 5 - 15 |

HAZARD STATEMENTS:

| | |
|------|--------------------------------------|
| H318 | Causes serious eye damage. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |

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 CENTER or doctor/physician.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

52.98% of the mixture consists of components of unknown acute oral toxicity.

Contains 52.98% of components with unknown hazards to the aquatic environment.

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

Symbol(s)



Irritant

Contains:

Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine)

Risk phrases

R41 Risk of serious damage to eyes.
R38 Irritating to skin.

3M Scotch-Weld DP-190 (Grey)(Part A)

R43 May cause sensitisation by skin contact.

Safety phrases

S24 Avoid contact with skin.
 S37/39A Wear suitable gloves and eye protection.
 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

| Ingredient | CAS Nbr | EU Inventory | % by Wt | Classification |
|--|------------|------------------|------------|---|
| Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine) | 68911-25-1 | | 50 - 60 | Xi:R38-41; R43 (Self Classified) Skin Irrit. 2, H315; Eye Dam. 1, H318; Skin Sens. 1, H317 (Self Classified) |
| Kaolin | 1332-58-7 | EINECS 310-194-1 | 30 - 40 | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | 4246-51-9 | EINECS 224-207-2 | 5 - 15 | C:R34; R52/53 (Self Classified) Skin Corr. 1B, H314; Aquatic Chronic 3, H412 (Self Classified) |
| Toluene | 108-88-3 | EINECS 203-625-9 | 0.1 - 0.99 | Repr.Cat.3:R63; F:R11; Xn:R48/20; Xn:R65; Xi:R38; R67 - Nota 4 (EU) Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; Repr. 2, H361d; STOT SE 3, H336; STOT RE 1, H372 (CLP) |

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

Please refer to section 15 for the any applicable Notas that have been applied to the above components

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****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.

Skin contact

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

Inhalation

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

If swallowed

3M Scotch-Weld DP-190 (Grey)(Part A)

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

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

See Section 11.1 Information on toxicological effects

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

Not applicable

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Contain spill. 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 toxic, corrosivity or flammability hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible.

6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not use in a confined area or areas with little or no air movement. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (eg. gloves, respirators...) as required.

7.2. Conditions for safe storage including any incompatibilities

Protect from sunlight. Store away from heat. Store away from acids. Store away from oxidising agents.

7.3. Specific end use(s)

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

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Occupational exposure limits**

| Ingredient | CAS Nbr | Agency | Limit type | Additional comments |
|-------------------|----------------|------------------------------|---|----------------------------|
| Toluene | 108-88-3 | Health and Safety Comm. (UK) | TWA: 191 mg/m ³ (50 ppm); STEL: 384 mg/m ³ (100 ppm) | Skin Notation |
| Kaolin | 1332-58-7 | Health and Safety Comm. (UK) | TWA (as respirable dust): 2 mg/m ³ | |

Health and Safety Comm. (UK) : UK Health and Safety Commission

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

ppm: parts per million

mg/m³: milligrams per cubic metre

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**

Wear eye/face protection.

The following eye protection(s) are recommended: Full face shield.

Indirect vented goggles.

Skin/hand protection

Wear protective gloves.

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

Nitrile rubber.

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

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. |
| Appearance/Odour | Amine odour, grey colour. |
| pH | <i>No data available.</i> |
| Boiling point/boiling range | <i>No data available.</i> |
| Melting point | <i>No data available.</i> |
| Flammability (solid, gas) | Not applicable. |
| Explosive properties | Not classified |
| Oxidising properties | Not classified |
| Flash point | ≥ 90 °C |
| Autoignition temperature | <i>No data available.</i> |
| Flammable Limits(LEL) | <i>No data available.</i> |
| Flammable Limits(UEL) | <i>No data available.</i> |
| Relative density | 1.31 - 1.39 [Ref Std:WATER=1] |
| Water solubility | <i>No data available.</i> |
| Partition coefficient: n-octanol/water | <i>No data available.</i> |
| Evaporation rate | <i>No data available.</i> |
| Vapour density | <i>No data available.</i> |
| Viscosity | 0.04 - 0.08 Pa-s [@ 24 °C] |
| Density | <i>No data available.</i> |

9.2. Other information

| | |
|------------------|-----|
| Percent volatile | 1 % |
|------------------|-----|

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

Strong acids.

10.6 Hazardous decomposition products

| <u>Substance</u> | <u>Condition</u> |
|------------------|------------------|
| Carbon monoxide. | Not specified. |
| Carbon dioxide. | Not specified. |

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:

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. Vapours released during curing may cause eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy 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.

Skin contact

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

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 target organ effects after inhalation.

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause target organ effects after ingestion.

Target Organ Effects:

Prolonged or repeated exposure may cause:

Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests.

Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Toxicological Data

Acute Toxicity

| Name | Route | Species | Value |
|--|-----------|---------|---|
| Overall product | Dermal | | No test data available; calculated ATE >5,000 mg/kg |
| Overall product | Ingestion | | No test data available; calculated ATE >5,000 mg/kg |
| Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine) | | | No data available |
| Kaolin | Ingestion | Human | LD50 > 15,000 mg/kg |
| 3,3'- | Dermal | Rabbit | LD50 2,500 mg/kg |

3M Scotch-Weld DP-190 (Grey)(Part A)

| | | | |
|--|----------------------------|-----|-------------------|
| Oxybis(ethyleneoxy)bis(propylamine) | | | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | Ingestion | Rat | LD50 3,160 mg/kg |
| Toluene | Dermal | Rat | LD50 12,000 mg/kg |
| Toluene | Inhalation-Vapor (4 hours) | Rat | LC50 30 mg/l |
| Toluene | Ingestion | Rat | LD50 2,600 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|--|---------|---------------------------|
| Overall product | Rabbit | Irritant |
| Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine) | | No data available |
| Kaolin | | No significant irritation |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | | Corrosive |
| Toluene | | Irritant |

Serious Eye Damage/Irritation

| Name | Species | Value |
|--|---------|---------------------------|
| Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine) | | No data available |
| Kaolin | | No significant irritation |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | | Corrosive |
| Toluene | | Moderate irritant |

Skin Sensitisation

| Name | Species | Value |
|--|------------|-------------------|
| Overall product | Guinea pig | Sensitising |
| Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine) | | No data available |
| Kaolin | | No data available |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | | No data available |
| Toluene | | Not sensitizing |

Respiratory Sensitisation

| Name | Species | Value |
|--|---------|-------------------|
| Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine) | | No data available |
| Kaolin | | No data available |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | | No data available |
| Toluene | | No data available |

Germ Cell Mutagenicity

| Name | Route | Value |
|--|---------|-------------------|
| Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine) | | No data available |
| Kaolin | | No data available |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | | No data available |
| Toluene | In vivo | Not mutagenic |

Carcinogenicity

| Name | Route | Species | Value |
|--|------------|---------|-------------------|
| Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine) | | | No data available |
| Kaolin | Inhalation | | Not carcinogenic |

3M Scotch-Weld DP-190 (Grey)(Part A)

| | | | |
|--|------------|--|--|
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | | | No data available |
| Toluene | Dermal | | Some positive data exist, but the data are not sufficient for classification |
| Toluene | Ingestion | | Some positive data exist, but the data are not sufficient for classification |
| Toluene | Inhalation | | 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 |
|--|------------|--|---------|-----------------|-------------------|
| Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine) | | No data available | | | |
| Kaolin | | No data available | | | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | | No data available | | | |
| Toluene | Ingestion | Toxic to reproduction and/or development | Rat | LOAEL 520 mg/kg | |
| Toluene | Inhalation | Toxic to reproduction and/or development | Human | NOAEL N/A | |

Lactation

| Name | Route | Species | Value |
|---------|----------------|---------|--|
| Toluene | Not specified. | | Some positive data exist, but the data are not sufficient for classification |

Target Organ(s)

Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|--|------------|-----------------------------------|--|---------|---------------------|-------------------|
| Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine) | | | No data available | | | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | | Irritation Positive | |
| Toluene | Inhalation | central nervous system depression | May cause drowsiness or dizziness | | NOAEL 0.15 mg/l | |
| Toluene | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for | | Irritation Positive | |

3M Scotch-Weld DP-190 (Grey)(Part A)

| | | | | | | |
|---------|------------|-----------------------------------|--|--|---------------|--|
| | | | classification | | | |
| Toluene | Inhalation | immune system | Some positive data exist, but the data are not sufficient for classification | | NOAEL N/A | |
| Toluene | Ingestion | central nervous system depression | May cause drowsiness or dizziness | | NOAEL N/A | |
| Toluene | Ocular | lacrimation | Some positive data exist, but the data are not sufficient for classification | | LOEL 7.5 mg/l | |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|--|------------|---|--|---------|----------------------|-------------------|
| Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine) | | | No data available | | | |
| Kaolin | Inhalation | pneumoconiosis | Causes damage to organs through prolonged or repeated exposure | | NOAEL N/A | |
| Kaolin | Inhalation | pulmonary fibrosis | Some positive data exist, but the data are not sufficient for classification | | NOAEL N/A | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | | | No data available | | | |
| Toluene | Inhalation | auditory system olfactory system | Causes damage to organs through prolonged or repeated exposure | | NOAEL N/A | |
| Toluene | Inhalation | nervous system | Causes damage to organs through prolonged or repeated exposure | | LOAEL 0.33 mg/l | |
| Toluene | Inhalation | eyes | Causes damage to organs through prolonged or repeated exposure | | LOAEL 0.15-0.23 mg/l | |
| Toluene | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | | LOAEL 2.3 mg/l | |
| Toluene | Inhalation | hematopoietic system immune system vascular | Some positive data exist, but the data are not sufficient for | | NOAEL N/A | |

3M Scotch-Weld DP-190 (Grey)(Part A)

| | | system | classification | | | |
|---------|------------|---------------------------------|--|--|---------------------|--|
| Toluene | Inhalation | heart kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | | NOEL 4.7 mg/l | |
| Toluene | Inhalation | liver | Some positive data exist, but the data are not sufficient for classification | | NOEL 2.4 mg/l | |
| Toluene | Inhalation | bone, teeth, nails, and/or hair | Some positive data exist, but the data are not sufficient for classification | | LOEL 1.1 mg/l | |
| Toluene | Inhalation | endocrine system | Some positive data exist, but the data are not sufficient for classification | | LOEL 0.11 mg/l | |
| Toluene | Ingestion | nervous system | Some positive data exist, but the data are not sufficient for classification | | NOAEL 446 mg/kg/day | |
| Toluene | Ingestion | endocrine system | Some positive data exist, but the data are not sufficient for classification | | NOEL N/A | |
| Toluene | Ingestion | hematopoietic system | Some positive data exist, but the data are not sufficient for classification | | LOEL 600 mg/kg/day | |
| Toluene | Ingestion | heart | Some positive data exist, but the data are not sufficient for classification | | NOEL 446 mg/kg/day | |
| Toluene | Ingestion | liver | Some positive data exist, but the data are not sufficient for classification | | LOEL 223 mg/kg/day | |
| Toluene | Ingestion | kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | | NOEL 223 mg/kg/day | |
| Toluene | Ingestion | immune system | Some positive data exist, but the data are not sufficient for classification | | LOEL 22 mg/kg/day | |

Aspiration Hazard

| Name | Value |
|--|--------------------------|
| Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine) | Not an aspiration hazard |

3M Scotch-Weld DP-190 (Grey)(Part A)

| | |
|--|--------------------------|
| Kaolin | Not an aspiration hazard |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | Not an aspiration hazard |
| Toluene | Aspiration hazard |

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

SECTION 12: Ecological information

The information below may not 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:**

Not acutely toxic to aquatic life by GHS criteria.

Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

| Material | CAS Nbr | Organism | Type | Exposure | Test endpoint | Test result |
|--|------------|-------------------|--------------------|----------|---------------|-------------|
| Kaolin | 1332-58-7 | | No data available. | | | |
| Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine) | 68911-25-1 | | No data available. | | | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | 4246-51-9 | Algae | Experimental | 72 hours | EC50 | 69 mg/l |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | 4246-51-9 | Golden Orfe | Experimental | 96 hours | LC50 | 220 mg/l |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | 4246-51-9 | Crustacea | Experimental | 48 hours | EC50 | 220 mg/l |
| Toluene | 108-88-3 | Green Algae | Experimental | 72 hours | EC50 | 12.5 mg/l |
| Toluene | 108-88-3 | Water flea | Experimental | 48 hours | LC50 | 3.78 mg/l |
| Toluene | 108-88-3 | Coho Salmon | Experimental | 96 hours | LC50 | 5.5 mg/l |
| Toluene | 108-88-3 | Sheepshead Minnow | Experimental | 28 days | NOEC | 3.2 mg/l |

3M Scotch-Weld DP-190 (Grey)(Part A)**12.2. Persistence and degradability**

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|---|------------|---------------------------|----------|------------|---------------|---------------------------|
| Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethylenoxy)bis(propylamine) | 68911-25-1 | No data available. | N/A | N/A | N/A | N/A |
| Kaolin | 1332-58-7 | No data available. | N/A | N/A | N/A | N/A |
| 3,3'-Oxybis(ethylenoxy)bis(propylamine) | 4246-51-9 | Calculated Biodegradation | 28 days | BOD | 12.6 % weight | OECD 301C - MITI test (I) |
| Toluene | 108-88-3 | Laboratory Biodegradation | 14 days | BOD | 100 % weight | OECD 301C - MITI test (I) |

12.3 : Bioaccumulative potential

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|---|------------|----------------------------|----------|------------|-------------|---------------|
| Kaolin | 1332-58-7 | No data available. | N/A | N/A | N/A | N/A |
| Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethylenoxy)bis(propylamine) | 68911-25-1 | No data available. | N/A | N/A | N/A | N/A |
| 3,3'-Oxybis(ethylenoxy)bis(propylamine) | 4246-51-9 | Calculated Bioaccumulation | | Log Kow | -1.46 | Other methods |
| Toluene | 108-88-3 | Laboratory Bioaccumulation | | Log Kow | 2.73 | Other methods |

12.4. Mobility in soil

Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

No information available at this time, contact manufacturer for more details

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

3M Scotch-Weld DP-190 (Grey)(Part A)

13.1 Waste treatment methods

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

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

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

EU waste code (product as sold)

08 04 09* Waste adhesives and sealants containing organic solvents or other dangerous substances
20 01 27* Paint, inks, adhesives and resins containing dangerous substances

SECTION 14: Transportation information

ADR: Not restricted for transport.

IMDG: Not restricted for transport.

IATA: Not restricted for transport.

SECTION 15: Regulatory information

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

Carcinogenicity

| <u>Ingredient</u> | <u>CAS Nbr</u> | <u>Classification</u> | <u>Regulation</u> |
|-------------------|----------------|-------------------------|---|
| Toluene | 108-88-3 | Gr. 3: Not classifiable | International Agency for Research on Cancer |

Global inventory status

Contact 3M for more information.

15.2. Chemical Safety Assessment

Not applicable

SECTION 16: Other information

List of relevant H statements

| | |
|-------|---|
| H225 | Highly flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H336 | May cause drowsiness or dizziness. |
| H361d | Suspected of damaging the unborn child. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |

H412 Harmful to aquatic life with long lasting effects.

List of relevant R-phrases

R11 Highly flammable.
R34 Causes burns.
R38 Irritating to skin.
R41 Risk of serious damage to eyes.
R43 May cause sensitisation by skin contact.
R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R52/53 Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
R63 Possible risk of harm to the unborn child.
R65 Harmful: May cause lung damage if swallowed.
R67 Vapours may cause drowsiness and dizziness.

Revision information:

Revision Changes:

Section 8: Respiratory protection - recommended respirators was modified.
Section 2: Indication of danger information was modified.
Section 9: Flammability (solid, gas) information was modified.
Copyright was modified.
Section 11: Acute Toxicity table was modified.
Section 11: Health Effects - Eye information was modified.
Section 11: Health Effects - Skin information was modified.
Section 5: Fire - Extinguishing media information was modified.
Section 6: Accidental release personal information was modified.
Section 6: Accidental release clean-up information was modified.
Section 7: Precautions safe handling information was modified.
Section 7: Conditions safe storage was modified.
Section 10: Hazardous decomposition or by-products table was modified.
Section 13: Standard Phrase Category Waste GHS was modified.
Section 8: Respiratory protection - recommended respirators guide was added.
Section 12: Component ecotoxicity information was added.
Section 12: Persistence and Degradability information was added.
Section 12: Biocumulative potential information was added.
Section 12: Component Ecotoxicity table Material column header was added.
Section 12: Component Ecotoxicity table CAS No column header was added.
Section 12: Component Ecotoxicity table Organism column header was added.
Section 12: Component Ecotoxicity table Type column header was added.
Section 12: Component Ecotoxicity table Exposure column header was added.
Section 12: Component Ecotoxicity table End point column header was added.
Section 12: Component Ecotoxicity table Result column header was added.
Section 12: Persistence and degradability table Material column header was added.
Section 12: Persistence and degradability table CAS No column header was added.
Section 12: Persistence and degradability table Test Type column header was added.
Section 12: Persistence and degradability table Duration column header was added.
Section 12: Persistence and degradability table Test Result column header was added.
Section 12: Persistence and degradability table Protocol column header was added.
Section 12: Biocumulative potential table Material column header was added.
Section 12: Biocumulative potential table CAS No column header was added.
Section 12: Biocumulative potential table CAS No column header was added.
Section 12: Biocumulative potential table Test Result column header was added.
Section 12: Biocumulative potential table Protocol column header was added.
Section 12: Biocumulative potential table Test Type column header was added.
Label: Signal Word - Header was added.
Label: Signal Word was added.
Label: CLP Classification - Header was added.

Label: CLP Classification was added.
Label: CLP Classification was added.
Label: CLP Classification - Header was added.
Label: CLP Percent Unknown was added.
Label: CLP Percent Unknown was added.
Label: Graphic was added.
Label: Graphic was added.
Label: Symbol was added.
Label: Symbol was added.
Label: CLP Precautionary - Prevention was added.
Label: CLP Precautionary - Prevention - Header was added.
Label: CLP Precautionary - Response was added.
Label: CLP Precautionary - Response - Header was added.
Label: Precautionary Statement - Header was added.
CLP: Ingredient table was added.
Section 2: 2.2 & 2.3. CLP REGULATION heading was added.
Label: CLP Ingredients table Ingredient heading was added.
Label: CLP Ingredients table CAS No heading was added.
Label: CLP Ingredients table Percent by Wt heading was added.
Section 12: Persistence and degradability table Study Type column header was added.
Section 12: Biocumulative potential table Test Type column header was added.
Section 2: R phrase reference was added.
Label: Graphic was added.
Label: Graphic was added.
Label: Graphic Text was added.
Section 9: Flammability (solid, gas) information was added.
Section 2: Symbol was deleted.
Section 2: Symbols heading was deleted.
Prints No Data if Component ecotoxicity information is not present was deleted.
Prints No Data if Persistence and Degradability information is not present was deleted.
Prints No Data if Biocumulative potential information is not present 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 United Kingdom MSDSs are available at www.3M.com/uk



Safety Data Sheet

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| | | | |
|---------------------------------------|-------------------|-------------------------|------------|
| Document group: | 24-4380-2 | Version number: | 5.00 |
| Revision date: | 04/01/2013 | Supersedes date: | 21/05/2012 |
| Transportation version number: | 1.00 (19/11/2010) | | |

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 Scotch-Weld DP-190 (Grey) (Part B)

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

Identified uses

Structural adhesive.

1.3. Details of the supplier of the substance or mixture

Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.

E Mail: tox.uk@mmm.com

Website: www.3M.com/uk

1.4. Emergency telephone number

+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:

Serious Eye Damage/Irritation: Category 2A.

Skin Corrosion/Irritation: Category 2.

Skin Sensitizer: Category 1.

Chronic Aquatic Toxicity: Category 2.

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

Indication of danger

Irritant; Xi; R36/38

Sensitizing; R43

Dangerous for the environment; N; R51/53

For full text of R phrases, see Section 16.

2.2. Label elements

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

WARNING!

Symbols:

GHS07 (Exclamation mark) | GHS09 (Environment) |

Pictograms



| Ingredient | CAS Nbr | % by Wt |
|--|------------|---------|
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | 25068-38-6 | 70 - 80 |

HAZARD STATEMENTS:

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

PRECAUTIONARY STATEMENTS

Prevention:

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

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. |

Disposal:

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

SUPPLEMENTAL INFORMATION

Supplemental Hazard Statements:

| | |
|--------|--|
| EUH205 | Contains epoxy constituents. May produce an allergic reaction. |
|--------|--|

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

Symbol(s)

3M Scotch-Weld DP-190 (Grey) (Part B)



Irritant



Dangerous
for the
environment

Contains:

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane

Risk phrases

R36/38 Irritating to eyes and skin.
R43 May cause sensitisation by skin contact.
R51/53 Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Safety phrases

S24 Avoid contact with skin.
S37 Wear suitable gloves.
S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

Special provisions concerning the labelling of certain substances

Contains epoxy resins. See information supplied by manufacturer.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

| Ingredient | CAS Nbr | EU Inventory | % by Wt | Classification |
|--|------------|------------------|---------|---|
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | 25068-38-6 | NLP 500-033-5 | 70 - 80 | Xi:R36-38; N:R51/53; R43 (EU) Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 2, H411 (CLP) |
| Kaolin | 1332-58-7 | EINECS 310-194-1 | 20 - 30 | |

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

Please refer to section 15 for the any applicable Notas that have been applied to the above components

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

Eye contact

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, 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.

3M Scotch-Weld DP-190 (Grey) (Part B)

Inhalation

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

If swallowed

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

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

See Section 11.1 Information on toxicological effects

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

Not applicable

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

5.3. Advice for fire-fighters

No unusual fire or explosion hazards are anticipated.

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. Warning: A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Contain spill. 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 toxic, corrosivity or flammability hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible.

6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

3M Scotch-Weld DP-190 (Grey) (Part B)

7.2. Conditions for safe storage including any incompatibilities

Store away from acids. Store away from oxidising agents.

7.3. Specific end use(s)

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

| Ingredient | CAS Nbr | Agency | Limit type | Additional comments |
|------------|-----------|------------------------------|---|---------------------|
| Kaolin | 1332-58-7 | Health and Safety Comm. (UK) | TWA (as respirable dust): 2 mg/m ³ | |

Health and Safety Comm. (UK) : UK Health and Safety Commission

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

ppm: parts per million

mg/m³: milligrams per cubic metre

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

Wear eye/face protection.

The following eye protection(s) are recommended: Indirect vented goggles.

Skin/hand protection

Wear protective gloves.

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

Nitrile rubber.

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

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

3M Scotch-Weld DP-190 (Grey) (Part B)

| | |
|--|----------------------------|
| Appearance/Odour | Epoxy odour, beige colour. |
| pH | <i>Not applicable.</i> |
| Boiling point/boiling range | ≥ 200 °C |
| Melting point | <i>No data available.</i> |
| Flammability (solid, gas) | Not applicable. |
| Explosive properties | Not classified |
| Oxidising properties | Not classified |
| Flash point | ≥ 200 °C |
| Autoignition temperature | <i>No data available.</i> |
| Flammable Limits(LEL) | <i>Not applicable.</i> |
| Flammable Limits(UEL) | <i>Not applicable.</i> |
| Relative density | 1.31 - 1.39 |
| Water solubility | <i>No data available.</i> |
| Partition coefficient: n-octanol/water | <i>No data available.</i> |
| Evaporation rate | <i>No data available.</i> |
| Vapour density | <i>Not applicable.</i> |
| Viscosity | 75 - 150 Pa-s [@ 24 °C] |
| Density | <i>No data available.</i> |
| 9.2. Other information | |
| Percent volatile | ≤ 1 % |

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

Strong acids.
Strong oxidising agents.

10.6 Hazardous decomposition products

| <u>Substance</u> | <u>Condition</u> |
|------------------|------------------|
| Aldehydes. | Not specified. |
| Carbon monoxide. | Not specified. |
| Carbon dioxide. | Not specified. |

SECTION 11: Toxicological information

3M Scotch-Weld DP-190 (Grey) (Part B)

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:

Eye contact

Moderate eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. Vapours released during curing may cause eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy 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.

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.

Inhalation

Vapours released during curing may cause irritation of the respiratory system: 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 target organ effects after inhalation.

Ingestion

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

Target Organ Effects:

Prolonged or repeated exposure may cause:

Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests.

Toxicological Data

Acute Toxicity

| Name | Route | Species | Value |
|--|-----------|---------|---|
| Overall product | Ingestion | | No test data available; calculated ATE >5,000 mg/kg |
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | Dermal | Rat | LD50 > 1,600 mg/kg |
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | Ingestion | Rat | LD50 > 1,000 mg/kg |
| Kaolin | Ingestion | Human | LD50 > 15,000 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|--|---------|---------------------------|
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | | Mild irritant |
| Kaolin | | No significant irritation |

3M Scotch-Weld DP-190 (Grey) (Part B)**Serious Eye Damage/Irritation**

| Name | Species | Value |
|--|---------|---------------------------|
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | | Moderate irritant |
| Kaolin | | No significant irritation |

Skin Sensitisation

| Name | Species | Value |
|--|---------|-------------------|
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | | Sensitising |
| Kaolin | | No data available |

Respiratory Sensitisation

| Name | Species | Value |
|--|---------|--|
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | | Some positive data exist, but the data are not sufficient for classification |
| Kaolin | | No data available |

Germ Cell Mutagenicity

| Name | Route | Value |
|--|---------|--|
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | In vivo | Some positive data exist, but the data are not sufficient for classification |
| Kaolin | | No data available |

Carcinogenicity

| Name | Route | Species | Value |
|--|------------|---------|--|
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | Dermal | | Some positive data exist, but the data are not sufficient for classification |
| Kaolin | Inhalation | | Not carcinogenic |

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

| Name | Route | Value | Species | Test result | Exposure Duration |
|--|-----------|--|---------|---------------------|-------------------|
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | Dermal | Not toxic to reproduction and/or development | | NOAEL 300 mg/kg/day | |
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | Ingestion | Not toxic to reproduction and/or development | | NOAEL 750 mg/kg/day | |
| Kaolin | | No data available | | | |

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

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|--|------------|------------------------|-----------------------|---------|---------------------|-------------------|
| 4,4'-Isopropylidenediphenol, oligomeric reaction | Inhalation | respiratory irritation | All data are negative | | Irritation Negative | |

3M Scotch-Weld DP-190 (Grey) (Part B)

| | | | | | | |
|---|--|--|--|--|--|--|
| products with 1-chloro-2,3-epoxypropane | | | | | | |
|---|--|--|--|--|--|--|

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|--|------------|--|--|---------|-----------------------|-------------------|
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | Dermal | liver | Some positive data exist, but the data are not sufficient for classification | | NOEL 1 mg/kg/day | |
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | Dermal | nervous system | All data are negative | | NOAEL 1,000 mg/kg/day | |
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | Ingestion | auditory system heart endocrine system blood hematopoietic system liver eyes kidney and/or bladder | All data are negative | | NOAEL 1,000 mg/kg/day | |
| Kaolin | Inhalation | pneumoconiosis | Causes damage to organs through prolonged or repeated exposure | | NOAEL N/A | |
| Kaolin | Inhalation | pulmonary fibrosis | Some positive data exist, but the data are not sufficient for classification | | NOAEL N/A | |

Aspiration Hazard

| Name | Value |
|--|--------------------------|
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | Not an aspiration hazard |
| Kaolin | Not an aspiration hazard |

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

SECTION 12: Ecological information

The information below may not 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

3M Scotch-Weld DP-190 (Grey) (Part B)**Acute aquatic hazard:**

GHS Acute 2: Toxic to aquatic life with long lasting effects.

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'-Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | 25068-38-6 | Ricefish | Laboratory | 96 hours | LC50 | 1.41 mg/l |
| 4,4'-Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | 25068-38-6 | Water flea | Laboratory | 21 days | NOEC | 0.3 mg/l |
| Kaolin | 1332-58-7 | | No data available. | | | |

12.2. Persistence and degradability

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|---|------------|---------------------------|----------|----------------------|-----------------|---------------------------|
| 4,4'-Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | 25068-38-6 | Laboratory Hydrolysis | | Hydrolytic half-life | <2 days (t 1/2) | Other methods |
| Kaolin | 1332-58-7 | No data available. | N/A | N/A | N/A | N/A |
| 4,4'-Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | 25068-38-6 | Laboratory Biodegradation | 28 days | BOD | 0 % weight | OECD 301C - MITI test (I) |

12.3 : Bioaccumulative potential

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|----------|-----------|-----------|----------|------------|-------------|----------|
| Kaolin | 1332-58-7 | No data | N/A | N/A | N/A | N/A |

3M Scotch-Weld DP-190 (Grey) (Part B)

| | | | | | | |
|---|------------|------------------------|---------|------------------------|-----|---------------|
| | | available. | | | | |
| 4,4'-Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane | 25068-38-6 | Laboratory BCF - Other | 28 days | Bioaccumulation factor | <42 | Other methods |

12.4. Mobility in soil

Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

No information available at this time, contact manufacturer for more details

12.6. Other adverse effects

No information available.

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

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

As a disposal alternative, Incinerate uncured product in a permitted waste incineration facility. Dispose of completely cured (or polymerised) material in a permitted industrial waste facility. Proper destruction may require the use of additional fuel during incineration processes. If no other disposal options are available, waste product that has been completely cured or polymerised may be placed in a landfill properly designed for industrial waste. 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

ADR: UN3077; Environmentally hazardous substance, solid, n.o.s. (Epoxy resin); Class 9; Packing group III; M7.
 IMDG: UN3077; Environmentally hazardous substance, solid, n.o.s. (Epoxy resin); Class 9; Packing group III.
 IATA: UN3077; Environmentally hazardous substance, solid, n.o.s. (Epoxy resin); Class 9; Packing group III.

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

3M Scotch-Weld DP-190 (Grey) (Part B)

Contact 3M for more information.

15.2. Chemical Safety Assessment

Not applicable

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. |
| H411 | Toxic to aquatic life with long lasting effects. |

List of relevant R-phrases

| | |
|--------|---|
| R36 | Irritating to eyes. |
| R38 | Irritating to skin. |
| R43 | May cause sensitisation by skin contact. |
| R51/53 | Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment. |

Revision information:

Revision Changes:

Section 8: Respiratory protection - recommended respirators was modified.

Section 2: Indication of danger information was modified.

Section 12: Acute aquatic hazard information was modified.

Section 12: Chronic aquatic hazard information was modified.

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

Copyright was modified.

Section 11: Health Effects - Eye information was modified.

Section 11: Health Effects - Skin information was modified.

Section 5: Fire - Extinguishing media information was modified.

Section 6: Accidental release clean-up information was modified.

Section 7: Precautions safe handling information was modified.

Section 10: Hazardous decomposition or by-products table was modified.

Section 13: Standard Phrase Category Waste GHS was modified.

Section 8: Respiratory protection - recommended respirators guide was added.

Section 12: Component ecotoxicity information was added.

Section 12: Persistence and Degradability information was added.

Section 12: Biocumulative potential information was added.

Section 12: Component Ecotoxicity table Material column header was added.

Section 12: Component Ecotoxicity table CAS No column header was added.

Section 12: Component Ecotoxicity table Organism column header was added.

Section 12: Component Ecotoxicity table Type column header was added.

Section 12: Component Ecotoxicity table Exposure column header was added.

Section 12: Component Ecotoxicity table End point column header was added.

Section 12: Component Ecotoxicity table Result column header was added.

Section 12: Persistence and degradability table Material column header was added.

Section 12: Persistence and degradability table CAS No column header was added.

Section 12: Persistence and degradability table Test Type column header was added.

Section 12: Persistence and degradability table Duration column header was added.

Section 12: Persistence and degradability table Test Result column header was added.

Section 12: Persistence and degradability table Protocol column header was added.

Section 12: Biocumulative potential table Material column header was added.

Section 12: Biocumulative potential table CAS No column header was added.

Section 12: Biocumulative potential table CAS No column header was added.

Section 12:Biocumulative potential table Test Result column header was added.
Section 12:Biocumulative potential table Protocol column header was added.
Section 12:Biocumulative potential table Test Type column header was added.
Label: Signal Word - Header was added.
Label: Signal Word was added.
Label: CLP Classification - Header was added.
Label: CLP Classification was added.
Label: CLP Classification was added.
Label: CLP Classification - Header was added.
Label: CLP Environmental Hazard Statements was added.
Label: Graphic was added.
Label: Graphic was added.
Label: Symbol was added.
Label: Symbol was added.
Label: CLP Precautionary - Disposal was added.
Label: CLP Precautionary - Disposal - Header was added.
Label: CLP Precautionary - Prevention was added.
Label: CLP Precautionary - Prevention - Header was added.
Label: CLP Precautionary - Response was added.
Label: CLP Precautionary - Response - Header was added.
Label: Precautionary Statement - Header was added.
CLP: Ingredient table was added.
Label: CLP Supplemental Hazard Statements was added.
Label: CLP Supplemental Hazard Statements - Header was added.
Label: CLP Supplemental Information - Header was added.
Section 2: 2.2 & 2.3. CLP REGULATION heading was added.
Section 8: Personal Protection - Eye information was added.
Label: CLP Ingredients table Ingredient heading was added.
Label: CLP Ingredients table CAS No heading was added.
Label: CLP Ingredients table Percent by Wt heading was added.
Section 12: Persistence and degradability table Study Type column header was added.
Section 12:Biocumulative potential table Test Type column header was added.
Label: Graphic Text was added.
Section 2: R phrase reference was added.
Label: Graphic was added.
Label: Graphic was added.
Label: Graphic Text was added.
Section 9: Flammability (solid, gas) information was added.
Section 2: Symbol was deleted.
Section 2: Symbols heading was deleted.
Prints No Data if Component ecotoxicity information is not present was deleted.
Prints No Data if Persistence and Degradability information is not present was deleted.
Prints No Data if Biocumulative potential information is not present was deleted.
Section 8: 8.1. Derived no effect level (DNEL) table heading was deleted.
Section 8: 8.1. Predicted no effect concentrations (PNEC) table heading was deleted.
Section 8: 8.1. Derived no effect level (DNEL) table ingredient column heading was deleted.
Section 8: 8.1. Derived no effect level (DNEL) table population column heading was deleted.
Section 8: 8.1. Derived no effect level (DNEL) table human exposure pattern column heading was deleted.
Section 8: 8.1. Derived no effect level (DNEL) table DNEL column heading was deleted.
Section 8: DNEL table row was deleted.
Section 8: 8.1. Predicted no effect concentrations (PNEC) table ingredient column heading was deleted.
Section 8: 8.1. Predicted no effect concentrations (PNEC) table compartment column heading was deleted.
Section 8: 8.1. Predicted no effect concentrations (PNEC) table PNEC column heading was deleted.
Section 8: PNEC table row was deleted.
Section 8: 8.1. Derived no effect level (DNEL) table Degradation Product column heading was deleted.
Section 8: 8.1. Predicted no effect concentrations (PNEC) table Degradation Product column heading 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 United Kingdom MSDSs are available at www.3M.com/uk