

Safety Data Sheet

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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

3MTM Polyether Adhesive - New Formulation

Product Identification Numbers

70-2011-4439-4

7100059325

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

Identified uses

Dental Product

Restrictions on Use

For use only by dental professionals.

1.3. Details of the supplier of the safety data sheet

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

 Telephone:
 +44 (0)1344 858 000

 E Mail:
 tox.uk@mmm.com

 Website:
 www.3M.com/uk

1.4. Emergency telephone number

+44 (0)1344 858 000

SECTION 2: Hazard identification

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

This product is a medical device as defined in Directive 93/42/EEC (MDD), which is invasive or used in direct physical contact with the human body, and therefore is exempt from the requirements of classification and labelling according to Regulation (EC) No. 1272/2008 (CLP; Article 1, paragraph 5). Although not required, the classification and label information, as applicable, is provided below.

CLASSIFICATION:

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

For full text of H phrases, see Section 16.

2.2. Label elements

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

DANGER.

Symbols:

GHS02 (Flame) |GHS07 (Exclamation mark) |

Pictograms



Ingredients:

 Ingredient
 CAS Nbr
 EC No.
 % by Wt

 Ethyl acetate
 141-78-6
 205-500-4
 70 - 80

HAZARD STATEMENTS:

H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.

PRECAUTIONARY STATEMENTS

Prevention:

P210A Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261A Avoid breathing vapours.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P370 + P378G In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or

carbon dioxide to extinguish.

SUPPLEMENTAL INFORMATION

Supplemental Hazard Statements:

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

For information on hazards and safe use, please consider the corresponding sections of this document.

SECTION 3: Composition/information on ingredients

D 0 0 10

| Ingredient | CAS Nbr | EC No. | REACH | % by Wt | Classification |
|---------------------------------------|------------|-----------|--------------|---------|--------------------------------|
| | | | Registration | | |
| | | | No. | | |
| Ethyl acetate | 141-78-6 | 205-500-4 | 01- | 70 - 80 | Flam. Liq. 2, H225; Eye Irrit. |
| | | | 2119475103- | | 2, H319; STOT SE 3, H336; |
| | | | 46 | | EUH066 |
| Dimethylsiloxane, hydroxy-terminated, | 68440-70-0 | | | 40 - 60 | Substance not classified as |
| reaction products with | | | | | hazardous |
| chlorotrimethylsilane, hydrochloric | | | | | |
| acid, propan-2-ol and sodium silicate | | | | | |

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

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. Do not induce vomiting. Get immediate 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 such as dry chemical or carbon dioxide to extinguish.

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for fire-fighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Contain spill. 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

Avoid prolonged or repeated skin contact. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Do not get in eyes.

7.2. Conditions for safe storage including any incompatibilities

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

7.3. Specific end use(s)

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

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

IngredientCAS NbrAgencyLimit typeAdditional commentsEthyl acetate141-78-6UK HSCTWA:200 ppm;STEL:400 ppm

UK HSC : UK Health and Safety Commission

TWA: Time-Weighted-Average STEL: Short Term Exposure Limit

CEIL: Ceiling

Biological limit values

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

8.2. Exposure controls

8.2.1. Engineering controls

Use in a well-ventilated area.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

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

Safety glasses with side shields.

Skin/hand protection

See Section 7.1 for additional information on skin protection.

Respiratory protection

None required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid.
Specific Physical Form: Viscous.

Appearance/Odour Red liquid with characteristic organic solvent odor.

Odour thresholdNo data available.pHNo data available.

Boiling point/boiling range 76.1 °C

Melting pointNo data available.Flammability (solid, gas)Not applicable.Explosive propertiesNot classifiedOxidising propertiesNot classified

Flash point -3.9 °C [Test Method:Closed Cup]

Autoignition temperature No data available.

Flammable Limits(LEL) 1.2 %
Flammable Limits(UEL) 11.5 %
Vapour pressure 17,465.2 Pa

Relative density > 0.9 [*Ref Std*:WATER=1]

Water solubility Nil

Solubility- non-waterNo data available.Partition coefficient: n-octanol/waterNo data available.Evaporation rateNo data available.Vapour density> 1 [Ref Std: AIR=1]Decomposition temperatureNo data available.Viscosityapproximately 0.25 Pa-sDensityapproximately 0.9 g/cm3

9.2. Other information

EU Volatile Organic Compounds

No data available.

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

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

3MTM Polyether Adhesive - New Formulation

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Sparks and/or flames. Heat.

10.5 Incompatible materials

Strong acids.

Strong oxidising agents.

No data available.

10.6 Hazardous decomposition products

Substance

Carbon monoxide. Carbon dioxide.

Condition

Oxidation, heat or reaction Oxidation, heat or reaction

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 3M assessments.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

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

Inhalation

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

Skin contact

Contact with the skin during product use is not expected to result in significant irritation.

Eve contact

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

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

Central nervous system (CNS) depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Toxicological Data

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

Acute Toxicity

| Name | Route | Species | Value |
|-----------------|-------------|---------|--|
| Overall product | Ingestion | | No data available; calculated ATE >5,000 mg/kg |
| Ethyl acetate | Dermal | Rabbit | LD50 > 18,000 mg/kg |
| Ethyl acetate | Inhalation- | Rat | LC50 70.5 mg/l |
| | Vapour (4 | | |
| | hours) | | |
| Ethyl acetate | Ingestion | Rat | LD50 5,620 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| | Name | Species | Value |
|---|---------------|---------|--------------------|
| ı | Ethyl acetate | Rabbit | Minimal irritation |

Serious Eve Damage/Irritation

| Name | Species | Value |
|---------------|---------|---------------|
| Ethyl acetate | Rabbit | Mild irritant |

Skin Sensitisation

| Skin Sensitisation | | |
|--------------------|---------|----------------|
| Name | Species | Value |
| Ethyl acetate | Guinea | Not classified |
| | pig | |

Respiratory Sensitisation

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

Germ Cell Mutagenicity

| Germ Cen Widtagementy | | |
|-----------------------|----------|---------------|
| Name | Route | Value |
| Ethyl acetate | In Vitro | Not mutagenic |
| Ethyl acetate | In vivo | Not mutagenic |

Carcinogenicity

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

Reproductive Toxicity

Reproductive and/or Developmental Effects

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

Target Organ(s)

Specific Target Organ Toxicity - single exposure

| Name | Name Route Target Organ(s) Value | | | | | Exposure |
|---------------|----------------------------------|--------------------------------------|--|---------|------------------------|----------|
| Name | Route | Target Organ(s) | value | Species | Test result | Duration |
| Ethyl acetate | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| Ethyl acetate | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| Ethyl acetate | Ingestion | central nervous | May cause drowsiness or | Human | NOAEL Not | |

| _ | | | |
|-------------------|-----------|-----------|--|
| system depression | dizziness | available | |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---------------|------------|---|----------------|---------|-----------------------------|----------------------|
| Ethyl acetate | Inhalation | endocrine system liver nervous system | Not classified | Rat | NOAEL 0.043 mg/l | 90 days |
| Ethyl acetate | Inhalation | hematopoietic system | Not classified | Rabbit | LOAEL 16 mg/l | 40 days |
| Ethyl acetate | Ingestion | hematopoietic system liver kidney and/or bladder | Not classified | Rat | NOAEL 3,600 mg/kg/day | 90 days |

Aspiration Hazard

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

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

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 |
|--|------------|-------------|---|----------|---------------|-------------|
| Ethyl acetate | 141-78-6 | Crustacea | Experimental | 48 hours | EC50 | 165 mg/l |
| Ethyl acetate | 141-78-6 | Fish | Experimental | 96 hours | LC50 | 212.5 mg/l |
| Ethyl acetate | 141-78-6 | Green Algae | Experimental | 72 hours | NOEC | >100 mg/l |
| Ethyl acetate | 141-78-6 | Water flea | Experimental | 21 days | NOEC | 2.4 mg/l |
| Dimethylsiloxane, hydroxy-terminated, reaction products with chlorotrimethylsilane, hydrochloric acid, propan-2-ol and sodium silicate | 68440-70-0 | | Data not available or insufficient for classification | | | |

12.2. Persistence and degradability

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|----------------------------|------------|-------------------|----------|----------------------|--------------|---------------------------|
| Ethyl acetate | 141-78-6 | Experimental | | Photolytic half-life | 20.0 days (t | Other methods |
| - | | Photolysis | | (in air) | 1/2) | |
| Ethyl acetate | 141-78-6 | Experimental | 14 days | BOD | 94 % | OECD 301C - MITI test (I) |
| | | Biodegradation | | | BOD/ThBOD | |
| Dimethylsiloxane, hydroxy- | 68440-70-0 | Data not availbl- | | | N/A | |
| terminated, reaction | | insufficient | | | | |
| products with | | | | | | |
| chlorotrimethylsilane, | | | | | | |
| hydrochloric acid, propan- | | | | | | |
| 2-ol and sodium silicate | | | | | | |

12.3: Bioaccumulative potential

| Material | Cas No. | Test type | Duration | Study Type | Test result | Protocol |
|----------------------------|------------|---------------------|----------|------------|-------------|---------------|
| Ethyl acetate | 141-78-6 | Experimental | | Log Kow | 0.68 | Other methods |
| | | Bioconcentration | | | | |
| Dimethylsiloxane, | 68440-70-0 | Data not available | N/A | N/A | N/A | N/A |
| hydroxy-terminated, | | or insufficient for | | | | |
| reaction products with | | classification | | | | |
| chlorotrimethylsilane, | | | | | | |
| hydrochloric acid, propan- | | | | | | |
| 2-ol and sodium silicate | | | | | | |

12.4. Mobility in soil

Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

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

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

See Section 11.1 Information on toxicological effects

Incinerate in a permitted waste incineration facility.

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)

180106* Chemicals consisting of or containing dangerous substances.

SECTION 14: Transportation information

70-2011-4439-4

ADR/RID: DANGEROUS GOODS IN EXCEPTED QUANTITIES, CLASS 3, II, (--).

IMDG-CODE: UN1133, ADHESIVES, 3, II, IMDG-Code segregation code: NONE, Dangerous Goods in excepted

Quantities, EMS: FE,SD.

ICAO/IATA: DANGEROUS GOODS IN EXCEPTED QUANTITIES OF CLASS 3,UN1133, II.

SECTION 15: Regulatory information

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

Global inventory status

Contact 3M for more information. The components of this product are in compliance with the new substance notification requirements of CEPA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory.

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

EUH066 Repeated exposure may cause skin dryness or cracking. H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation.

H336 Causes serious eye irritation.

May cause drowsiness or dizziness.

Revision information:

CLP: Ingredient table information was modified.

Label: CLP Precautionary - Prevention information was modified.

Section 5: Fire - Advice for fire fighters information information was modified.

Section 7: Precautions safe handling information information was modified.

Section 9: Property description for optional properties information was modified.

Section 12: Component ecotoxicity information information was modified.

Section 12: No PBT/vPvB information available warning information was modified.

Section 12: Persistence and Degradability information information was modified.

Section 12:Bioccumulative potential information information was modified.

Section 15: Chemical Safety Assessment information was modified.

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

3M United Kingdom MSDSs are available at www.3M.com/uk