



## SAFETY DATA SHEET A17

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

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

#### 1.1. Product identifier

**Product name** Fast Setting Gripper Adhesive  
**Product number** A17

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

**Identified uses** Adhesive.  
**Uses advised against** No specific uses advised against are identified.

#### 1.3. Details of the supplier of the safety data sheet

**Supplier** Morleys Adhesives (2013) Ltd  
Unit 20 Higher Walton Mill  
Higher Walton  
Preston  
PR5 4DJ  
  
T:+44(0)1772 626700  
F:+44(0)1772 627372  
E: adhesives@morleys2013.co.uk

#### 1.4. Emergency telephone number

**Emergency telephone** +44 01772 626700 (NOT 24HRS - 9am-5pm mon-fri )  
**National emergency telephone number** National Poisons Information Service (UK) TEL: 0844 892 0111

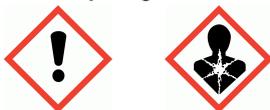
### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (EC 1272/2008)

**Physical hazards** Not Classified  
**Health hazards** Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Carc. 2 - H351 STOT SE 3 - H335 STOT RE 2 - H373  
**Environmental hazards** Not Classified  
**Human health** Contains non-volatile isocyanate. Heating may generate vapours which irritate the respiratory system. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### 2.2. Label elements

**A17****Hazard pictograms****Signal word**

Danger

**Hazard statements**

H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 H317 May cause an allergic skin reaction.  
 H351 Suspected of causing cancer.  
 H335 May cause respiratory irritation.  
 H373 May cause damage to organs through prolonged or repeated exposure.

**Precautionary statements**

EUH204 Contains isocyanates. May produce an allergic reaction.  
 P260 Do not breathe vapour/ spray.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P281 Use personal protective equipment as required.  
 P284 [In case of inadequate ventilation] wear respiratory protection.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P313 Get medical advice/ attention.  
 P501 Dispose of contents/ container in accordance with national regulations.  
 RCH004a Persons already sensitised to diisocyanates may develop allergic reactions when using this product.  
 RCH004b Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.  
 RCH004c This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

**Contains**

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

**2.3. Other hazards****SECTION 3: Composition/information on ingredients****3.2. Mixtures**

<b>DIPHENYLMETHANE-4,4'-DI-ISOCYANATE</b>		<b>30-60%</b>
CAS number: 101-68-8	EC number: 202-966-0	REACH registration number: 01-2119457014-47-0000
<b>Classification</b>		
Acute Tox. 4 - H332		
Skin Irrit. 2 - H315		
Eye Irrit. 2 - H319		
Resp. Sens. 1 - H334		
Skin Sens. 1 - H317		
Carc. 2 - H351		
STOT SE 3 - H335		
STOT RE 2 - H373		

# A17

<b>2,2'DIMORPHOLINYLDIETHYL ETHER</b>	<b>1-5%</b>
CAS number: 6425-39-4	EC number: 229-194-7
	REACH registration number: 01-2119969278-20-0000
<b>Classification</b>	
Eye Irrit. 2 - H319	

The full text for all hazard statements is displayed in Section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

<b>General information</b>	Remove affected person from source of contamination.
<b>Inhalation</b>	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
<b>Ingestion</b>	DO NOT induce vomiting. Get medical attention immediately.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
<b>Eye contact</b>	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. Show this Safety Data Sheet to the medical personnel.

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

<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	Irritation of nose, throat and airway. Coughing, chest tightness, feeling of chest pressure.
<b>Ingestion</b>	May cause discomfort if swallowed.
<b>Skin contact</b>	Prolonged skin contact may cause redness and irritation.
<b>Eye contact</b>	Severe irritation, burning and tearing.

### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Notes for the doctor</b>	No specific recommendations. If in doubt, get medical attention promptly.
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	Extinguish with foam, carbon dioxide, dry powder or water fog.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

### 5.2. Special hazards arising from the substance or mixture

<b>Specific hazards</b>	Irritating gases or vapours.
<b>Hazardous combustion products</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.

### 5.3. Advice for firefighters

<b>Protective actions during firefighting</b>	Containers close to fire should be removed or cooled with water. Do not allow water to contact any leaked material.
<b>Special protective equipment for firefighters</b>	Wear chemical protective suit. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## A17

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Wear protective clothing as described in Section 8 of this safety data sheet.

#### 6.2. Environmental precautions

**Environmental precautions** Do not discharge into drains or watercourses or onto the ground.

#### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Absorb spillage with non-combustible, absorbent material. Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Provide adequate ventilation. Contain spillage with sand, earth or other suitable non-combustible material. Avoid the spillage or runoff entering drains, sewers or watercourses.

#### 6.4. Reference to other sections

**Reference to other sections** Wear protective clothing as described in Section 8 of this safety data sheet.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Usage precautions** Avoid inhalation of vapours and spray/mists. Avoid contact with skin and eyes. Do not use in confined spaces without adequate ventilation and/or respirator. Spraying is permitted only in closed systems, spray cabinets or spray boxes with adequate ventilation.

#### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Store in closed original container at temperatures between 5°C and 25°C.

**Storage class** Chemical storage.

#### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

### SECTION 8: Exposure controls/Personal protection

#### 8.1. Control parameters

##### Occupational exposure limits

##### **DIPHENYLMETHANE-4,4'-DI-ISOCYANATE**

Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m<sup>3</sup>(Sen)

Short-term exposure limit (15-minute): WEL 0.07 mg/m<sup>3</sup>(Sen)

WEL = Workplace Exposure Limit.

**Ingredient comments** WEL = Workplace Exposure Limits

**DIPHENYLMETHANE-4,4'-DI-ISOCYANATE (CAS: 101-68-8)**

## A17

<b>DNEL</b>	<p>Workers - Inhalation; Short term systemic effects: 0.1 mg/m<sup>3</sup></p> <p>Workers - Dermal; Short term local effects: 28.7 mg/cm<sup>2</sup></p> <p>Workers - Inhalation; Short term local effects: 0.1 mg/m<sup>3</sup></p> <p>Workers - Inhalation; Long term systemic effects: 0.05 mg/m<sup>3</sup></p> <p>Workers - Inhalation; Long term local effects: 0.05 mg/m<sup>3</sup></p> <p>Consumer - Dermal; Short term systemic effects: 25 mg/kg bw/day</p> <p>Workers - Dermal; Short term systemic effects: 50 mg/kg bw/day</p> <p>Consumer - Oral; Short term systemic effects: 20 mg/kg bw/day</p> <p>Consumer - Dermal; Short term local effects: 17.2 mg/cm<sup>2</sup></p> <p>Consumer - Inhalation; Short term local effects: 0.05 mg/m<sup>3</sup></p> <p>Consumer - Inhalation; Long term systemic effects: 0.025 mg/m<sup>3</sup></p> <p>Consumer - Inhalation; Long term local effects: 0.025 mg/m<sup>3</sup></p> <p>Consumer - Inhalation; Short term systemic effects: 0.05 mg/m<sup>3</sup></p>
<b>PNEC</b>	<ul style="list-style-type: none"> <li>- marine water; 0.1 mg/l</li> <li>- STP; 1 mg/l</li> <li>- Fresh water; 1 mg/l</li> <li>- Soil; 1 mg/kg</li> </ul>

### 2,2'DIMORPHOLINYLDIETHYL ETHER (CAS: 6425-39-4)

<b>DNEL</b>	<p>Workers - Inhalation; Long term systemic effects: 7.28 mg/m<sup>3</sup></p> <p>Workers - Dermal; Long term systemic effects: 1 mg/kg bw/day</p> <p>Consumer - Inhalation; Long term systemic effects: 1.8 mg/m<sup>3</sup></p> <p>Consumer - Dermal; Long term systemic effects: 0.5 mg/kg bw/day</p> <p>Consumer - Oral; Long term systemic effects: 0.5 mg/kg bw/day</p>
<b>PNEC</b>	<ul style="list-style-type: none"> <li>- Fresh water; 0.1 mg/l</li> <li>- marine water; 0.01 mg/l</li> <li>- Intermittent release; 1 mg/l</li> <li>- Sediment (Freshwater); 8.2 mg/kg</li> <li>- Sediment (Marinewater); 0.82 mg/kg</li> <li>- STP; 100 mg/l</li> <li>- Soil; 1.58 mg/kg</li> </ul>

## 8.2. Exposure controls

### Protective equipment



### Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients. This product is not to be used under conditions of poor ventilation. This product must not be handled in a confined space without adequate ventilation. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

### Eye/face protection

Wear chemical splash goggles.

### Hand protection

It is recommended that gloves are made of the following material: Nitrile rubber. It should be noted that liquid may penetrate the gloves. Frequent changes are recommended. For exposure up to 8 hours, wear gloves made of the following material: Nitrile rubber.

### Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination. Wear apron or protective clothing in case of contact.

## A17

<b>Hygiene measures</b>	Use engineering controls to reduce air contamination to permissible exposure level. Wash hands after handling. When using do not eat, drink or smoke.
<b>Respiratory protection</b>	If ventilation is inadequate, suitable respiratory protection must be worn. If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: ABEK2-P3
<b>Environmental exposure controls</b>	Keep container tightly sealed when not in use.

### SECTION 9: Physical and chemical properties

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

<b>Appearance</b>	Coloured gel.
<b>Colour</b>	Cream.
<b>Odour</b>	Musty (mouldy).
<b>Odour threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point</b>	<10°C
<b>Initial boiling point and range</b>	330°C @ mbar
<b>Flash point</b>	>200°C Closed cup.
<b>Evaporation rate</b>	slow
<b>Evaporation factor</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	Not applicable.
<b>Other flammability</b>	Not available.
<b>Vapour pressure</b>	0.01 Pa @ °C
<b>Vapour density</b>	8.5
<b>Relative density</b>	1.10 @ 20°C
<b>Bulk density</b>	Not available.
<b>Solubility(ies)</b>	Insoluble in water. Hardens in contact with water.
<b>Partition coefficient</b>	Not available.
<b>Auto-ignition temperature</b>	>600°C
<b>Decomposition Temperature</b>	Not available.
<b>Viscosity</b>	Kinematic viscosity > 20.5 mm <sup>2</sup> /s.
<b>Explosive properties</b>	Not available.
<b>Explosive under the influence of a flame</b>	Not considered to be explosive.
<b>Oxidising properties</b>	Not available.
<b>Comments</b>	Information given is applicable to the product as supplied.

#### 9.2. Other information

## A17

<b>Other information</b>	No information required.
<b>Refractive index</b>	Not available.
<b>Particle size</b>	Not available.
<b>Molecular weight</b>	Not available.
<b>Volatility</b>	Not available.
<b>Saturation concentration</b>	Not available.
<b>Critical temperature</b>	Not available.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

**Reactivity** The product will harden into a solid mass in contact with water and moisture.

#### 10.2. Chemical stability

**Stability** Stable at normal ambient temperatures and when used as recommended.

#### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** Not applicable. May polymerise.

#### 10.4. Conditions to avoid

**Conditions to avoid** Avoid contact with water.

#### 10.5. Incompatible materials

#### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 10,000.0

**Species** Rat

##### Acute toxicity - dermal

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 10,000.0

**Species** Rabbit

##### Acute toxicity - inhalation

**Species** Rat

**ATE inhalation (vapours mg/l)** 26.83

##### Skin corrosion/irritation

**Animal data** Irritating.

##### Serious eye damage/irritation

**Serious eye damage/irritation** Moderately irritating.

##### Respiratory sensitisation

## A17

<b>Respiratory sensitisation</b>	Sensitising.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	Suspected carcinogen based on limited evidence.
<b>Target organ for carcinogenicity</b>	No specific target organs known.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - development</b>	This substance has no evidence of toxicity to reproduction.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	Morphological changes that are potentially reversible but provide clear evidence of marked organ dysfunction.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Not anticipated to present an aspiration hazard, based on chemical structure.
<b><u>Inhalation</u></b>	
<b>Inhalation</b>	Irritating to respiratory system. May cause sensitisation by inhalation.
<b><u>Ingestion</u></b>	
<b>Ingestion</b>	May cause stomach pain or vomiting.
<b><u>Skin contact</u></b>	
<b>Skin contact</b>	Irritating to skin. May cause sensitisation by skin contact.
<b><u>Eye contact</u></b>	
<b>Eye contact</b>	Irritation of eyes and mucous membranes.
<b><u>Acute and chronic health hazards</u></b>	
<b>Acute and chronic health hazards</b>	May cause sensitisation by skin contact. The product contains small quantities of isocyanate. May cause respiratory allergy. May cause respiratory system irritation. May cause respiratory system irritation. Frequent inhalation of vapours may cause respiratory allergy.
<b>Route of exposure</b>	Inhalation Skin and/or eye contact
<b>Medical symptoms</b>	Irritation of eyes and mucous membranes. Coughing, chest tightness, feeling of chest pressure.
<b>Medical considerations</b>	Chronic respiratory and obstructive airway diseases.

### Toxicological information on ingredients.

#### DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

##### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 10,000.0

**Species** Rat

**ATE oral (mg/kg)** 10,000.0

##### Acute toxicity - dermal

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 9,400.0

**Species** Rabbit

**ATE dermal (mg/kg)** 9,400.0

##### Acute toxicity - inhalation

**Acute toxicity inhalation (LC<sub>50</sub> vapours mg/l)** 0.31

## A17

<b>Species</b>	Rat
<b>ATE inhalation (vapours mg/l)</b>	11.0
<b><u>Carcinogenicity</u></b>	
<b>IARC carcinogenicity</b>	IARC Group 3 Not classifiable as to its carcinogenicity to humans.

### 2,2'DIMORPHOLINYLDIETHYL ETHER

#### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 2,025.0

**Species** Rat

**Notes (oral LD<sub>50</sub>)** No information available.

#### Acute toxicity - dermal

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 3,038.0

**Species** Rabbit

**Notes (dermal LD<sub>50</sub>)** No information available.

#### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** No information available.

#### Skin corrosion/irritation

**Skin corrosion/irritation** No information available.

#### Serious eye damage/irritation

**Serious eye damage/irritation** No information available.

#### Respiratory sensitisation

**Respiratory sensitisation** No information available.

#### Skin sensitisation

**Skin sensitisation** No information available.

#### Carcinogenicity

**IARC carcinogenicity** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Inhalation** May be harmful if inhaled. Spray/mists may cause respiratory tract irritation.

**Ingestion** May be harmful if swallowed.

**Skin contact** May be absorbed through the skin. May be harmful in contact with skin. May cause skin irritation.

**Eye contact** May cause eye irritation.

### SECTION 12: Ecological information

**Ecotoxicity** The product is not expected to be hazardous to the environment.

## A17

### 12.1. Toxicity

#### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: > 1000 mg/l, Freshwater fish

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: >500 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: ~ 1640 mg/l, Scenedesmus subspicatus

#### Ecological information on ingredients.

#### DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

##### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: >1000 mg/l, Marinewater fish

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 24 hours: >1000 mg/l, Daphnia magna

##### Chronic aquatic toxicity

**Chronic toxicity - aquatic invertebrates** NOEC, 21 days: >10 mg/l, Daphnia magna

#### 2,2'DIMORPHOLINYLDIETHYL ETHER

##### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 2150 mg/l,

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: >100 mg/l, Daphnia magna

**Acute toxicity - microorganisms** EC<sub>50</sub>, 3 hours: >1000 mg/l, Bacteria

### 12.2. Persistence and degradability

**Persistence and degradability** The product is not readily biodegradable.

**Stability (hydrolysis)** Reacts with water.

**Biological oxygen demand** < 10 g O<sub>2</sub>/g substance

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** The product does not contain any substances expected to be bioaccumulating.

**Partition coefficient** Not available.

#### Ecological information on ingredients.

#### DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

**Partition coefficient** log Pow: 4.51

### 12.4. Mobility in soil

**Mobility** The product is non-volatile.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

### 12.6. Other adverse effects

## A17

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

**General information** Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

**Disposal methods** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

### SECTION 14: Transport information

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

#### 14.1. UN number

Not applicable.

#### 14.2. UN proper shipping name

Not applicable.

#### 14.3. Transport hazard class(es)

##### **Transport labels**

No transport warning sign required.

#### 14.4. Packing group

Not applicable.

#### 14.5. Environmental hazards

##### **Environmentally hazardous substance/marine pollutant**

No.

#### 14.6. Special precautions for user

Not applicable.

#### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

**Transport in bulk according to** Not applicable.

**Annex II of MARPOL 73/78  
and the IBC Code**

### SECTION 15: Regulatory information

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

**National regulations** The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).  
Control of Pollution Act 1974.

**EU legislation** Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

**Guidance** Approved Classification and Labelling Guide (Sixth edition) L131.

**Restrictions (Annex XVII  
Regulation 1907/2006)** Entry number: 56 Methylenediphenyl diisocyanate (MDI)

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

**A17****SECTION 16: Other information**

<b>Issued by</b>	Technical
<b>Revision date</b>	10/01/2020
<b>Revision</b>	01
<b>Supersedes date</b>	N/A
<b>SDS status</b>	Approved.
<b>Hazard statements in full</b>	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H332 Harmful if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure.
<b>Store Between</b>	Store Between 5°C - 25°C
<b>Contains SVHC</b>	NO

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.