

# METAL ADHESIVE H COMPONENT B



## SAFETY DATA SHEET

Compiled in accordance with REACH Regulation (EC) No 1907/2006, as retained and amended in UK law

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

#### 1.1. Product identifier

Product form : Mixture  
Trade name : Metal Adhesive H Component B  
Product code : Ford Internal Ref.: 193356  
SDS Number : 5654  
UFI : 0GG8-NJWW-W00F-JVHR  
Product use : Professional use

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

##### 1.2.1. Relevant identified uses

Function or use category : Adhesives, sealants

##### 1.2.2. Uses advised against

Restrictions on use : None known

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

##### Supplier

Ford-Werke GmbH  
Edsel-Ford-Str. 2-14  
50769 Cologne  
Germany  
+49 221 90-33333  
sdseu@ford.com

##### Distributor

Ford Motor Company Ltd.  
Parts Distribution Centre  
Royal Oak Way South  
NN11 8NT Daventry, Northants  
United Kingdom  
+44 1327 305 198

#### 1.4. Emergency telephone number

+49 (0) 6132-84463 (GBK GmbH – 24/7)

### SECTION 2: Hazards identification

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

Classification according to The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations

Health hazards	Acute toxicity (oral), Category 4	H302	Harmful if swallowed.
	Skin corrosion/irritation, Category 1, Sub-Category 1B	H314	Causes severe skin burns and eye damage.
	Serious eye damage/eye irritation, Category 1	H318	Causes serious eye damage.
	Skin sensitisation, Category 1	H317	May cause an allergic skin reaction.
	Specific target organ toxicity – Repeated exposure, Category 2	H373	May cause damage to organs (kidneys, liver) through prolonged or repeated exposure (oral).
Environmental hazards	Hazardous to the aquatic environment – Chronic Hazard, Category 3	H412	Harmful to aquatic life with long lasting effects.

Full text of H- and EUH-statements: see section 16

#### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

Labelling according to The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations

### Hazard pictograms



### Signal word

Danger

### Contains

Poly(oxy-1,4-butanediyl), alpha-hydro-omega-hydroxy-, polymer with ammonia; Formaldehyde, polymer with benzenamine, hydrogenated; 4,4'-methylenebis(cyclohexylamine); fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines

### Hazard statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H373	May cause damage to organs (kidneys, liver) through prolonged or repeated exposure (oral).
H412	Harmful to aquatic life with long lasting effects.

### Precautionary statements

#### Prevention

P260	Do not breathe dust, fume, Aerosol.
P273	Avoid release to the environment.
P280	Wear protective gloves, protective clothing, eye protection, face protection.

#### Response

P301+P312	IF SWALLOWED: Call a POISON CENTER, doctor if you feel unwell.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
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, a doctor.

## 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Chemical name	CAS- No EC- No Index No RRN	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Notes
Poly(oxy-1,4-butanediyl), alpha-hydro-omega-hydroxy-, polymer with ammonia	960525-56-8 680-355-1	20 - 40	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Chronic 3, H412	
Formaldehyde, polymer with benzenamine, hydrogenated	135108-88-2 603-894-6 01-2119983522-33-XXXX	10 - 20	Acute Tox. 3 (Oral), H301 (ATE=100 mg/kg bodyweight) Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1, H317	UVCB

			STOT RE 2, H373 Aquatic Chronic 3, H412	
4,4'-methylenebis(cyclohexylamine)	1761-71-3 217-168-8 01-2119541673-38-XXXX	10 - 20	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 STOT RE 2, H373	
Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia	9046-10-0 618-561-0 01-2119557899-12-XXXX	10 - 20	Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Chronic 3, H412	UVCB
1,3-bis[3-(dimethylamino)propyl]urea	52338-87-1 257-861-2 01-2120781639-37-XXXX	1 - < 5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412	
3-aminopropyldimethylamine	109-55-7 203-680-9 612-061-00-6 01-2119486842-27-XXXX	1 - < 5	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Acute Tox. 4 (Dermal), H312 (ATE=1100 mg/kg bodyweight) Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 STOT SE 3, H335	
fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	68410-23-1 614-452-7	1 - < 3	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1B, H317 Aquatic Chronic 2, H411	UVCB
Amines, polyethylenepoly-, triethylenetetramine fraction	90640-67-8 292-588-2 01-2119487919-13-XXXX	0,1 - < 1	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg) Acute Tox. 4 (Dermal), H312 (ATE=1100 mg/kg) Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412	

Comments : UVCB: Substances of Unknown or Variable composition, Complex reaction products or Biological materials

Full text of H- and EUH-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures general : Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention.
- First-aid measures after skin contact : Take off contaminated clothing and wash it before reuse. Wash immediately with plenty of water. Get medical advice/attention.
- First-aid measures after eye contact : Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
- First-aid measures after ingestion : Do not induce vomiting. Rinse mouth thoroughly. Get immediate medical advice/attention.

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

- Symptoms/effects: : Harmful if swallowed. Swallowing material may cause irritation of the gastrointestinal lining, nausea, vomiting, diarrhea, and abdominal pain.

- Symptoms/effects after skin contact : Causes severe skin burns and eye damage. May cause an allergic skin reaction. irritation (itching, redness, blistering).
- Symptoms/effects after eye contact : Causes serious eye damage. Conjunctivitis. Eye irritation.
- Symptoms/effects after ingestion : Harmful if swallowed. May cause damage to organs through prolonged or repeated exposure. Abdominal pain, nausea. Vomiting. Diarrhea.

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

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Foam, carbon dioxide (CO<sub>2</sub>), powder, water spray.
- Unsuitable extinguishing media : Do not use a water jet since it may cause the fire to spread.

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

- Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon oxides (CO, CO<sub>2</sub>). Nitrogen oxides.

### 5.3. Advice for firefighters

- Firefighting instructions : Move containers from fire area if it can be done without personal risk. Use standard firefighting procedures and consider the hazards of other involved materials.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

- Protective equipment : Wear appropriate protective equipment and clothing during clean-up. Use personal protection recommended in Section 8 of the MSDS.
- Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin, eyes and clothing. Local authorities should be advised if significant spillages cannot be contained. Wear appropriate protective equipment and clothing during clean-up.

#### 6.1.2. For emergency responders

- Protective equipment : Wear recommended personal protective equipment. For personal protection, see section 8 of the SDS.
- Emergency procedures : Keep unnecessary personnel away. Ventilate area.

### 6.2. Environmental precautions

Avoid release to the environment. Avoid discharge into drains, water courses or onto the ground. Prevent further leakage or spillage if safe to do so. Inform appropriate managerial or supervisory personnel of all environmental releases.

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

- For containment : Stop the flow of material, if this is without risk. Move containers from fire area if it can be done without personal risk.
- Methods for cleaning up : Mechanically recover the product.
- Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13 : "Disposal considerations".

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid release to the environment. Avoid contact with skin, eyes and clothing. Protect material from direct sunlight. Observe good industrial hygiene practices.
- Hygiene measures : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Observe good industrial hygiene practices.

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

Technical measures	: Ensure adequate ventilation, especially in confined areas.
Storage conditions	: Store locked up. Store in a dry, cool and well-ventilated place.
Incompatible materials	: Alkalines. Strong oxidizing agent. Strong reducing agents.
Storage temperature	: 15 – 35 °C

## 7.3. Specific end use(s)

Adhesives, sealants.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. National occupational exposure and biological limit values

##### Exposure limit values for the other components

###### Silane, dichlorodimethyl-, reaction products with silica (68611-44-9)

###### United Kingdom - Occupational Exposure Limits

WEL TWA (OEL TWA) [1]	6 mg/m <sup>3</sup> inhalable aerosol
WEL STEL (OEL STEL)	2.4 mg/m <sup>3</sup> respirable aerosol

###### Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>) (14807-96-6)

###### United Kingdom - Occupational Exposure Limits

Local name	Talc
WEL TWA (OEL TWA) [1]	1 mg/m <sup>3</sup> respirable dust
Regulatory reference	EH40. HSE

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

##### Formaldehyde, polymer with benzenamine, hydrogenated (135108-88-2)

###### DNEL/DMEL (Workers)

Acute - systemic effects, dermal	6 mg/kg bodyweight/day
Acute - systemic effects, inhalation	2 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	2 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.2 mg/m <sup>3</sup>

###### PNEC (Water)

PNEC aqua (freshwater)	0.015 mg/l
PNEC aqua (marine water)	0.002
PNEC aqua (intermittent, freshwater)	0.15 mg/l

###### PNEC (Sediment)

PNEC sediment (freshwater)	15 mg/kg dwt
PNEC sediment (marine water)	1.5 mg/kg dwt

###### PNEC (Soil)

PNEC soil	1.8 µg/kg dw
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###### PNEC (STP)

PNEC sewage treatment plant	1.9 mg/l
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#### 4,4'-methylenebis(cyclohexylamine) (1761-71-3)

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##### **DNEL/DMEL (Workers)**

Long-term - systemic effects, dermal	0.053 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.13 mg/m <sup>3</sup>

##### **PNEC (Water)**

PNEC aqua (freshwater)	0.08 mg/l
PNEC aqua (marine water)	0.008 mg/l
PNEC aqua (intermittent, freshwater)	0.08 mg/l

##### **PNEC (Sediment)**

PNEC sediment (freshwater)	136.6 mg/kg dwt
PNEC sediment (marine water)	13.7 mg/kg dwt

##### **PNEC (Soil)**

PNEC soil	27.3 mg/kg dwt
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##### **PNEC (STP)**

PNEC sewage treatment plant	3.2 mg/l
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#### Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia (9046-10-0)

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##### **DNEL/DMEL (Workers)**

Long-term - systemic effects, dermal	2.5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	5.29 mg/m <sup>3</sup>

##### **PNEC (Water)**

PNEC aqua (freshwater)	0.015 mg/l
PNEC aqua (marine water)	0.014 mg/l
PNEC aqua (intermittent, freshwater)	0.15 mg/l

##### **PNEC (Sediment)**

PNEC sediment (freshwater)	0.132 mg/kg dwt
PNEC sediment (marine water)	0.125 mg/kg dwt

##### **PNEC (Soil)**

PNEC soil	0.018 mg/kg dwt
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##### **PNEC (Oral)**

PNEC oral (secondary poisoning)	6.93 kg/kg food
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##### **PNEC (STP)**

PNEC sewage treatment plant	7.5 mg/l
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#### fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines (68410-23-1)

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##### **DNEL/DMEL (Workers)**

Long-term - systemic effects, dermal	1.1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	3.9 mg/kg bw/day

##### **DNEL/DMEL (General population)**

Long-term - systemic effects, oral	0.56 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.97 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	0.56 mg/kg bodyweight/day

##### **PNEC (Water)**

PNEC aqua (freshwater)	0.004 mg/l
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PNEC aqua (intermittent, freshwater)	0.041 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	411 mg/kg dwt
PNEC sediment (marine water)	41.1 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	82.18 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	3.14 mg/l

### 1,3-bis[3-(dimethylamino)propyl]urea (52338-87-1)

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<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	2.33 mg/kg bw/day
Long-term - systemic effects, inhalation	5.8 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	0.833 mg/kg bw/day
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	93 µg/L
PNEC aqua (marine water)	9.3 µg/L
PNEC aqua (intermittent, freshwater)	0.93 mg/l
PNEC aqua (intermittent, marine water)	93 µg/L
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.372 mg/kg dwt
PNEC sediment (marine water)	37.2 µg/kg dw
<b>PNEC (Soil)</b>	
PNEC soil	19.8 µg/kg dw
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	1.8 mg/l

### 3-aminopropyldimethylamine (109-55-7)

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<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, inhalation	1.2 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.073 mg/l
PNEC aqua (marine water)	0.007 mg/l
PNEC aqua (intermittent, freshwater)	0.34 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.735 mg/kg dwt
PNEC sediment (marine water)	0.073 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.104 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	10 mg/l

**DNEL/DMEL (Workers)**

Long-term - systemic effects, inhalation 0.054 mg/m<sup>3</sup>

**DNEL/DMEL (General population)**

Long-term - systemic effects, oral 0.14 mg/kg bodyweight/day

Long-term - systemic effects, inhalation 0.096 mg/m<sup>3</sup>

**PNEC (Water)**

PNEC aqua (freshwater) 0.027 mg/l

PNEC aqua (marine water) 0.003 mg/l

PNEC aqua (intermittent, freshwater) 0.2 mg/l

PNEC aqua (intermittent, marine water) 0.02 mg/l

**PNEC (Sediment)**

PNEC sediment (freshwater) 8.572 mg/kg dwt

PNEC sediment (marine water) 0.857 mg/kg dwt

**PNEC (Soil)**

PNEC soil 1.25 mg/kg dwt

**PNEC (STP)**

PNEC sewage treatment plant 0.13 mg/l

**8.1.5. Control banding**

No additional information available

**8.2. Exposure controls**

**8.2.1. Appropriate engineering controls**

**Appropriate engineering controls:**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**8.2.2. Personal protection equipment**

**Personal protective equipment:**

Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the protective equipment.

**8.2.2.1. Eye and face protection**

**Eye protection:**

Safety glasses with side shields. EN 166.

**8.2.2.2. Skin protection**

**Skin and body protection:**

Wear suitable protective clothing. Long sleeved protective clothing. EN 14605. EN ISO 13982

**Hand protection:**

Protective gloves. ISO 374-1. The recommendation is only valid for the supplied product and the stated application. Special working conditions, like heat or mechanical strain, which deviate from the test conditions, can reduce the protective effect provided by the recommended glove

Material	Permeation	Thickness (mm)	Comments
Nitrile rubber (NBR)	6 (> 480 minutes)	0,4	Glove recommendation: Camatril Velours® 730 (Kächele-Cama GmbH, source of supply see www.kcl.de) or comparable product.
In case of splash contact: Nitrile rubber (NBR)	6 (> 480 minutes)	0,4	Glove recommendation: Camatril Velours® 730 (Kächele-Cama GmbH, source of supply see www.kcl.de) or comparable product.



## Other skin protection

### Materials for protective clothing:

Personal protective equipment should be chosen according to the GEN standards and in discussion with the supplier of the protective equipment

### 8.2.2.3. Respiratory protection

#### Respiratory protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Extra personal protection: A/P2 filter respirator for organic vapour and harmful dust

### 8.2.2.4. Thermal hazards

#### Thermal hazard protection:

Wear appropriate thermal protective clothing, when necessary.

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases.

#### Other information:

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Colour	: Grey.
Appearance	: Paste.
Odour	: Characteristic.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not applicable
Flammability	: Not available
Explosive properties	: Not applicable.
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: > 93 °C
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not applicable
pH	: 10 – 11 (10%) @ 20°C (68 °F)
Viscosity, kinematic	: > 20.5 mm <sup>2</sup> /s @ 40°C (104 °F)
Viscosity, dynamic	: 1000 – 3000 mPa·s
Solubility	: Material nearly insoluble in water.
Log Kow	: Not available
Vapour pressure	: < 1 hPa
Vapour pressure at 50°C	: Not available
Density	: 1 g/cm <sup>3</sup> @ 20°C (68 °F)
Relative density	: > 1 @ 20°C (68 °F)
Relative vapour density at 20°C	: Not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

## 9.2.2. Other safety characteristics

VOC content : 0 %

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Refer to Section 10 on Incompatible Materials.

### 10.5. Incompatible materials

Strong oxidizing agents.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. During fire, gases hazardous to health may be formed.

## SECTION 11: Toxicological information

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

Acute toxicity (oral) : Harmful if swallowed.  
Acute toxicity (dermal) : Based on available data, the classification criteria are not met  
Acute toxicity (inhalation) : Based on available data, the classification criteria are not met

<b>Metal Adhesive H Component B</b>	
ATE CLP (oral)	> 300 – < 2000 mg/kg bodyweight
ATE CLP (dermal)	> 2000 mg/kg bodyweight
<b>Formaldehyde, polymer with benzenamine, hydrogenated (135108-88-2)</b>	
LD50 oral rat	300 mg/kg
<b>4,4'-methylenebis(cyclohexylamine) (1761-71-3)</b>	
LD50 oral rat	380 mg/kg (EPA OPP 81-1)
<b>3-aminopropyldimethylamine (109-55-7)</b>	
LD50 oral rat	410 mg/kg bodyweight
<b>Amines, polyethylenepoly-, triethylenetetramine fraction (90640-67-8)</b>	
LD50 oral rat	1716 mg/kg bodyweight
LD50 dermal rat	1465 mg/kg bodyweight
Skin corrosion/irritation	: Causes severe skin burns. pH: 10 – 11 (10%) @ 20°C (68 °F)
Serious eye damage/irritation	: Causes serious eye damage. pH: 10 – 11 (10%) @ 20°C (68 °F)
Respiratory or skin sensitisation	: May cause an allergic skin reaction
Germ cell mutagenicity	: Based on available data, the classification criteria are not met
Carcinogenicity	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Based on available data, the classification criteria are not met
STOT-single exposure	: Based on available data, the classification criteria are not met
<b>3-aminopropyldimethylamine (109-55-7)</b>	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure

<b>Formaldehyde, polymer with benzenamine, hydrogenated (135108-88-2)</b>	
STOT-repeated exposure	May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).
<b>4,4'-methylenebis(cyclohexylamine) (1761-71-3)</b>	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Based on available data, the classification criteria are not met
<b>Metal Adhesive H Component B</b>	
Viscosity, kinematic	> 20.5 mm <sup>2</sup> /s @ 40°C (104 °F)

## 11.2. Information on other hazards

### 11.2.1. Endocrine disrupting properties

### 11.2.2. Other information

Potential adverse human health effects and symptoms : Exposure may produce an allergic reaction, Information on Effects: refer to section 4

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.  
 Hazardous to the aquatic environment, short-term (acute) : Based on available data, the classification criteria are not met  
 Hazardous to the aquatic environment, long-term (chronic) : Harmful to aquatic life with long lasting effects.

#### **Poly(oxy-1,4-butanediyl), alpha-hydro-omega-hydroxy-, polymer with ammonia (960525-56-8)**

LC50 - Fish [1] > 100 mg/l (OECD 203 method)  
 EC50 - Crustacea [1] 15 mg/l (OECD 202 method)

#### **Formaldehyde, polymer with benzenamine, hydrogenated (135108-88-2)**

LC50 - Fish [1] 63 mg/l (OECD 203 method)  
 EC50 - Crustacea [1] 15.4 mg/l (OECD 202 method)

#### **Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia (9046-10-0)**

LC50 - Fish [1] 772.14 mg/l (OECD 203 method)  
 EC50 - Crustacea [1] 80 mg/l (OECD 202 method)

#### **fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines (68410-23-1)**

LC50 - Fish [1] 7.07 mg/l (OECD 203 method)  
 EC50 - Crustacea [1] 5.18 mg/l (OECD 202 method)  
 EC50 72h - Algae [1] 4.11 mg/l (OECD 201 method)

#### **1,3-bis[3-(dimethylamino)propyl]urea (52338-87-1)**

LC50 - Fish [1] > 1000 mg/l (OECD 203 method)  
 EC50 - Crustacea [1] 93 mg/l (OECD 202 method)  
 EC50 72h - Algae [1] > 100 mg/l (OECD 201 method)  
 NOEC chronic algae 100 mg/l

#### **Amines, polyethylenepoly-, triethylenetetramine fraction (90640-67-8)**

LC50 - Fish [1] 330 mg/l  
 EC50 - Crustacea [1] 31 mg/l (OECD 202 method)

## 12.2. Persistence and degradability

No additional information available

## 12.3. Bioaccumulative potential

No additional information available

## 12.4. Mobility in soil

No additional information available

## 12.5. Results of PBT and vPvB assessment

### Metal Adhesive H Component B

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.

## 12.6. Endocrine disrupting properties

No additional information available

## 12.7. Other adverse effects

Other adverse effects : No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this product

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste) : Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Dispose of in accordance with local regulations.

Waste treatment methods : Collect and reclaim or dispose in closed containers at licensed waste disposal site. Do not contaminate ponds, waterways or ditches with chemical or used container. Do not allow to enter drains or water courses. Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations : Do not contaminate ponds, waterways or ditches with chemical or used container.

Product/Packaging disposal recommendations : Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Additional information : Dispose in accordance with all applicable regulations.

European List of Waste (LoW) code : The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.  
08 04 09\* - waste adhesives and sealants containing organic solvents or other dangerous substances  
15 01 10\* - packaging containing residues of or contaminated by dangerous substances

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

### 14.1. UN number or ID number

UN-No. (ADR) : UN 3259  
UN-No. (IMDG) : UN 3259  
UN-No. (IATA) : UN 3259  
UN-No. (ADN) : UN 3259  
UN-No. (RID) : UN 3259

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : AMINES, SOLID, CORROSIVE, N.O.S. (4,4'-methylenebis(cyclohexylamine) ; Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia)

Proper Shipping Name (IMDG) : AMINES, SOLID, CORROSIVE, N.O.S. (4,4'-methylenebis(cyclohexylamine) ; Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia)

Proper Shipping Name (IATA) : Amines, solid, corrosive, n.o.s. (4,4'-methylenebis(cyclohexylamine) ; Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia)

Proper Shipping Name (ADN) : AMINES, SOLID, CORROSIVE, N.O.S. (4,4'-methylenebis(cyclohexylamine) ; Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia)

Proper Shipping Name (RID) : AMINES, SOLID, CORROSIVE, N.O.S. (4,4'-methylenebis(cyclohexylamine) ; Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia)

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : 8  
Danger labels (ADR) : 8

#### IMDG

Transport hazard class(es) (IMDG) : 8  
Danger labels (IMDG) : 8

#### IATA

Transport hazard class(es) (IATA) : 8  
Hazard labels (IATA) : 8

#### ADN

Transport hazard class(es) (ADN) : 8  
Danger labels (ADN) : 8

#### RID

Transport hazard class(es) (RID) : 8  
Danger labels (RID) : 8

### 14.4. Packing group

Packing group (ADR) : II  
Packing group (IMDG) : II  
Packing group (IATA) : II  
Packing group (ADN) : II  
Packing group (RID) : II

### 14.5. Environmental hazards

Dangerous for the environment : No  
Marine pollutant : No  
Other information : No supplementary information available.

### 14.6. Special precautions for user

#### Overland transport

Classification code (ADR) : C8  
Special provisions (ADR) : 274  
Limited quantities (ADR) : 1kg  
Packing instructions (ADR) : P002, IBC08  
Hazard identification number (Kemler No.) : 80  
Tunnel restriction code (ADR) : E  
EAC code : 2X

#### Transport by sea

Special provisions (IMDG) : 274  
Limited quantities (IMDG) : 1 kg  
Packing instructions (IMDG) : P002  
EmS-No. (Fire) : F-A  
EmS-No. (Spillage) : S-B  
Stowage category (IMDG) : A

#### Air transport

PCA Excepted quantities (IATA) : E2  
PCA Limited quantities (IATA) : Y844  
PCA limited quantity max net quantity (IATA) : 5kg  
PCA packing instructions (IATA) : 859  
PCA max net quantity (IATA) : 15kg  
CAO packing instructions (IATA) : 863  
CAO max net quantity (IATA) : 50kg  
Special provisions (IATA) : A3, A803

ERG code (IATA) : 8L

#### Inland waterway transport

Classification code (ADN) : C8  
Special provisions (ADN) : 274  
Limited quantities (ADN) : 1 kg

#### Rail transport

Classification code (RID) : C8  
Special provisions (RID) : 274  
Limited quantities (RID) : 1kg  
Packing instructions (RID) : P002, IBC08  
Hazard identification number (RID) : 80

#### 14.7. Maritime transport in bulk according to IMO instruments

IBC code : Not applicable.

### SECTION 15: Regulatory information

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

##### 15.1.1. EU-Regulations

##### EU restriction list (REACH Annex XVII)

Reference code	Applicable on
3(a)	3-aminopropyl dimethylamine
3(b)	Poly(oxy-1,4-butanediyl), alpha-hydro-omega-hydroxy-, polymer with ammonia ; Formaldehyde, polymer with benzenamine, hydrogenated ; 4,4'-methylenebis(cyclohexylamine) ; Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia ; fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines ; 1,3-bis[3-(dimethylamino)propyl]urea ; 3-aminopropyl dimethylamine ; Amines, polyethylenepoly-, triethylenetetramine fraction
3(c)	Poly(oxy-1,4-butanediyl), alpha-hydro-omega-hydroxy-, polymer with ammonia ; Formaldehyde, polymer with benzenamine, hydrogenated ; Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia ; fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines ; 1,3-bis[3-(dimethylamino)propyl]urea ; Amines, polyethylenepoly-, triethylenetetramine fraction
40.	3-aminopropyl dimethylamine

Contains no substance(s) listed on the REACH Candidate List  
Contains no substance(s) listed on REACH Annex XIV (Authorisation List)  
Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)  
Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)  
VOC content : 0 %  
Other information, restriction and prohibition regulations : Directive 94/33/EC on the protection of young people at work, as amended. Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work, as amended. Directive 92/85/EEC on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding as amended. For details, refer to section 3 and 8.

##### Directive 2012/18/EU (SEVESO III)

Seveso Additional information : Not applicable

##### 15.1.2. National regulations

No additional information available

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

### SECTION 16: Other information

#### Indication of changes:

Composition/information on ingredients. SECTION 2 : Section 9. SECTION 11. SECTION 12. SECTION 15.

#### Abbreviations and acronyms

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR European Agreement concerning the International Carriage of Dangerous Goods by Road  
STEL Short-term Exposure Limit

VOC	Volatile organic compounds
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative
OEL	Occupational Exposure Limit
RRN	REACH Registration no.
TWA	Time Weighted Average. The average concentration of a chemical in air over the total exposure time-usually an 8-hour workday.

Data sources	:	REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Training advice	:	Normal use of this product shall imply use in accordance with the instructions on the packaging.

#### Full text of H- and EUH-statements

Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]**

Acute Tox. 4 (Oral)	H302	Calculation method
Skin Corr. 1B	H314	Calculation method
Eye Dam. 1	H318	Expert judgement
Skin Sens. 1	H317	Calculation method
STOT RE 2	H373	Calculation method
Aquatic Chronic 3	H412	Calculation method

*The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.*





## Attachment to the Safety Data Sheet

**Product Name:** Metal Adhesive H Component B

**Ford Int. Ref. No.:** 193356

**Revision Date:** 26.05.2023

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### Involved Products:

Finiscode	Part number	Container Size:
1	FU7J M2G400 BA	65 ml
<b>Part of Kit:</b> 1 947 915	FU7J M11P47 AA	Metal Adhesive Kit H – 2 Component