ADHESIVE H-PU1



SAFETY DATA SHEET

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

ISSUE DATE: 07.05.2015 REVISION DATE: 17.06.2025 SUPERSEDES: 29.03.2023

VERSION: 4.0

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

1.1. Product identifier

Product form : Mixture

Trade name : Adhesive H-PU1

Product code : Ford Internal Ref.: 195087

SDS Number : 5890

Unique Formula Identifier (UFI) : D39E-SJQ3-3003-KT7E
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 Distributor

Ford-Werke GmbH Ford Motor Company Ltd.
Edsel-Ford-Str. 2-14 Parts Distribution Centre
50769 Cologne Royal Oak Way South
Germany NN11 8NT Daventry, Northants

+49 221 90-33333 United Kingdom sdseu@ford.com +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 Respiratory sensitisation, Category 1 H334 May cause allergy or asthma symptoms or

breathing difficulties if inhaled.

Skin sensitisation, Category 1 H317 May cause an allergic skin reaction.

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 4,4'-methylenediphenyl diisocyanate; Adipic acid, polymer with 1,6-hexanediol and 1,1'-

methylenebis[4-isocyanato benzene]

Hazard statements

H317 May cause an allergic skin reaction.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements

Prevention

P261 Avoid breathing vapours.
P280 Wear protective gloves.

Response

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P342+P311 If experiencing respiratory symptoms: Call a doctor, a POISON CENTER.

Extra phrases As from 24 August 2023 adequate training is required before industrial or professional use.

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 substance(s) are 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
Adipic acid, polymer with 1,6-hexanediol and 1,1'-methylenebis[4-isocyanato benzene]	31075-20-4	1-<3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335 STOT RE 2, H373	
Oxydipropyl dibenzoate	27138-31-4 248-258-5 01-2119529241-49-XXXX	0.25 - < 2.5	Aquatic Chronic 3, H412	
4,4'-methylenediphenyl diisocyanate	101-68-8 202-966-0 615-005-00-9 01-2119457014-47-XXXX	0.1 - < 1	Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h) 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	$(0.1 \le C \le 100)$ Resp. Sens. 1; H334 $(5 \le C \le 100)$ Eye Irrit. 2; H319 $(5 \le C \le 100)$ Skin Irrit. 2; H315 $(5 \le C \le 100)$ STOT SE 3; H335 (Note C)(Note 2)

Note 2 - The concentration of isocyanate stated is the percentage by weight of the free monomer calculated with reference to the total weight of the mixture.

Note C - Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

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 : Call a poison center or a doctor if you feel unwell. Never give anything by mouth to an unconscious

person.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory

symptoms: Call a poison center or a doctor.

First-aid measures after skin contact : Wash skin with plenty of water. If skin irritation occurs: 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. Consult an

ophthalmologist if irritation persists.

First-aid measures after ingestion : Rinse mouth out with water. Do not induce vomiting. Call a poison center or a doctor if you feel

unwell.

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

Symptoms/effects after inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled. Cough. Shortness of

breath. May cause irritation or asthma-like symptoms.

Symptoms/effects after skin contact : Repeated or prolonged skin contact may cause irritation. irritation (itching, redness, blistering).

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

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 : During fire, gases hazardous to health may be formed. Carbon oxides (CO, CO2).

5.3. Advice for firefighters

Precautionary measures fire : In case of fire and/or explosion do not breathe fumes.

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 recommended personal protective equipment. For personal protection, see section 8 of the

SDS.

Emergency procedures : Ventilate spillage area. Avoid breathing fume, mist, gas, vapours. Avoid contact with skin, eyes and

clothing.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to

section 8: "Exposure controls/personal protection".

Emergency procedures : Keep unnecessary personnel away.

6.2. Environmental precautions

Avoid release to the environment. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Leave the product to solidify. Mechanically recover the product. Large Spills: Stop the flow of

material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills

in original containers for re-use.

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 : Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Ensure good

ventilation of the work station.

Hygiene measures : Do not eat, drink or smoke when using this product. 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.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

Storage conditions : Store in a well-ventilated place. Keep out of frost.

Incompatible materials : Water. Amines. Alcohol.

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

No additional information available

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

Oxydipropyl dibenzoate (27138-31-4)

Acute - systemic effects, dermal 170 mg/kg bw/day

Acute - systemic effects, inhalation 35.08 mg/m³

Long-term - systemic effects, dermal 10 mg/kg bw/day

Long-term - systemic effects, inhalation 8.8 mg/m³

DNEL/DMEL (General population)

Acute - systemic effects, dermal 80 mg/kg bw/day

Acute - systemic effects, inhalation 8.7 mg/m³

Acute - systemic effects, oral 80 mg/kg bw/day

Long-term - systemic effects,oral 5 mg/kg bw/day

Long-term - systemic effects, inhalation 8.69 mg/m³

Long-term - systemic effects, dermal 2.5 mg/kg bw/day

PNEC (Water)

PNEC aqua (freshwater)

PNEC aqua (marine water)

PNEC aqua (intermittent, freshwater)

PNEC aqua (intermittent, marine water)

0.02 mg/l

0.002 mg/l

0.04 mg/l

0.01 mg/l

PNEC (Sediment)

PNEC sediment (freshwater) 8.03 mg/kg dwt
PNEC sediment (marine water) 0.803 mg/kg dwt

PNEC (Soil)

PNEC soil 1 mg/kg dwt

PNEC (Oral)

PNEC oral (secondary poisoning) 333 mg/kg food

PNEC (STP)

PNEC sewage treatment plant 10 mg/l

4,4'-methylenediphenyl diisocyanate (101-68-8)

DNEL/DMEL (Workers)

Acute - local effects, inhalation 0.1 mg/m³
Long-term - local effects, inhalation 0.05 mg/m³

DNEL/DMEL (General population)

Acute - local effects, inhalation 0.05 mg/m³

Long-term - local effects, inhalation 0.025 mg/m³

PNEC (Water)

PNEC aqua (freshwater) 3.7 mg/l
PNEC aqua (marine water) 0.37 mg/l
PNEC aqua (intermittent, freshwater) 37 mg/l

PNEC (Sediment)

PNEC sediment (freshwater) 11.7 mg/kg dwt
PNEC sediment (marine water) 1.17 mg/kg dwt

PNEC (Soil)

PNEC soil 2.33 mg/kg dwt

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:

Wear suitable protective clothing.

8.2.2.1. Eye and face protection

Eve protection:

EN 166. Safety glasses. Wear security glasses which protect from splashes

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing. Long sleeved protective clothing

Hand protection:

Protective gloves. DIN ISO 374. 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 protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal 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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

: Solid Physical state Colour : Black. **Appearance** : Paste. Odour : Characteristic. Odour threshold Not available Melting point : Not available : Not available Freezing point Boiling point : Not available : Not available Flammability Not applicable **Explosive limits** : Not applicable Lower explosive limit (LEL) : Not applicable Upper explosive limit (UEL) Flash point : Not applicable : Not applicable Auto-ignition temperature : > 140 °C Decomposition temperature : Not available : Not available pH solution Viscosity, kinematic : Not applicable Viscosity, dynamic : 4606 mPa·s Solubility insoluble in water. : Not available Log Kow Vapour pressure : < 0.1 hPa @ 20°C Vapour pressure at 50°C : Not available

Density : 1.23 – 1.29 g/cm³ @ 20°C

Relative density Not available Relative vapour density at 20°C : Not applicable : Not available Particle size Particle size distribution : Not available Not available Particle shape Not available Particle aspect ratio : Not available Particle aggregation state Particle agglomeration state : Not available : Not available Particle specific surface area

Particle dustiness : Not available

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 : 0.3 %

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with water. Possible pressure build-up. Reacts with: Water. Alcohol. Amines.

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

Do not allow contact with water. humidity. Moisture.

10.5. Incompatible materials

Water. Amines. alcohols.

10.6. Hazardous decomposition products

During fire, gases hazardous to health may be formed. Isocyanates. On contact with humidity, releases: Carbon oxides (CO, CO2). pressure rise and possible bursting of container.

SECTION 11: Toxicological information

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

Acute toxicity (oral)

: Based on available data, the classification criteria are not met
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
Skin corrosion/irritation

: Based on available data, the classification criteria are not met
Serious eye damage/irritation

: Based on available data, the classification criteria are not met

Respiratory or skin sensitisation : May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic

skin reaction

Additional information : Persons suffering from allergic reactions to isocyanates should avoid contact with the product.

Germ cell mutagenicity : Based on available data, the classification criteria are not met Carcinogenicity : Based on available data, the classification criteria are not met

4,4'-methylenediphenyl diisocyanate (101-68-8)	
IARC group	3 - Not classifiable
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	

4,4"-methylenediphenyl diisocyanate (101-68-8)	methylenediphenyl diisocyanate (101-68-8)	
STOT-single exposure	May cause respiratory irritation.	
Adipic acid, polymer with 1,6-hexanediol and 1,1'-methylenebis[4-isocyanato benzene] (31075-20-4)		
STOT-single exposure May cause respiratory irritation.		
STOT-repeated exposure :	Based on available data, the classification criteria are not met	

4,4'-methylenediphenyl diisocyanate (101-68-8)	
STOT-repeated exposure	May cause damage to organs (respiratory system) through prolonged or repeated exposure (inhalation).

	Adipic acid, polymer with 1,6-hexanediol and 1,1'-methylenebis[4-isocyanato benzene] (31075-20-4)		
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	
Adhesive H-PU1 Viscosity, kinematic Not applicable			
		Not applicable	

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

11.2.2. Other information

Potential adverse human health effects and symptoms : Avoid pro

: Avoid prolonged exposure : Isocyanates, Exposure may produce an allergic reaction

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general

Hazardous to the aquatic environment, short–term (acute)

Hazardous to the aquatic environment, long-term (chronic)

: The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

: Based on available data, the classification criteria are not met

: Based on available data, the classification criteria are not met

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

Adhesive H-PU1

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 waste regulation

: Dispose of in accordance with local regulations. 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).

Waste treatment methods

Sewage disposal recommendations

Dispose of contents/container in accordance with licensed collector's sorting instructions.
Do not contaminate ponds, waterways or ditches with chemical or used container.

. Do not contaminate portos, waterways or ditories with chemical or used contaminate

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID Not regulated for transport

 Product code: Ford Internal Ref.: 195087
 GB - en
 Revision date: 6/17/2025
 8/10

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(b) Adhesive H-PU1; Adipic acid, polymer with 1,6-hexanediol and 1,1'-methylenebis[4-isocyanato benzene]

3(c) Oxydipropyl dibenzoate

56(a) 4,4'-methylenediphenyl diisocyanate
74. 4,4'-methylenediphenyl diisocyanate
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 : 0.3 %

Other information, restriction and prohibition regulations: Directive 92/85/EEC on the safety and health of pregnant workers and workers who have recently

given birth or are breastfeeding 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

94/33/EC on the protection of young people at work, 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:

SECTION 2. P-statements for label. Physical and chemical properties.

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

ATE Acute Toxicity Estimate
BCF Bioconcentration factor
BLV Biological limit value

BOD Biochemical oxygen demand (BOD)
COD Chemical oxygen demand (COD)
DMEL Derived Minimal Effect level
DNEL Derived-No Effect Level
EC-No. European Community number
EC50 Median effective concentration

EN European Standard

 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

OECD Organisation for Economic Co-operation and Development

OEL Occupational Exposure Limit

PBT Persistent Bioaccumulative Toxic

PNEC Predicted No-Effect Concentration

RID Regulations concerning the International Carriage of Dangerous Goods by Rail

SDS Safety Data Sheet STP Sewage treatment plant

ThOD Theoretical oxygen demand (ThOD)

TLM Median Tolerance Limit

VOC Volatile organic compounds

CAS-No. Chemical Abstract Service number

N.O.S. Not Otherwise Specified

vPvB Very Persistent and Very Bioaccumulative

ED Endocrine disruptor

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 : Follow training instructions when handling this material.

Full text of H- and EUH-statements

Acute Tox. 4 (Inhalation) Acute toxicity (inhal.), Category 4

Aquatic Chronic 3 Hazardous to the aquatic environment – Chronic Hazard, Category 3

Carc. 2 Carcinogenicity, Category 2

Eye Irrit. 2 Serious eye damage/eye irritation, Category 2

Resp. Sens. 1 Respiratory sensitisation, Category 1
Skin Irrit. 2 Skin corrosion/irritation, Category 2
Skin Sens. 1 Skin sensitisation, Category 1

STOT RE 2 Specific target organ toxicity – Repeated exposure, Category 2

STOT SE 3 Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

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.

H412 Harmful to aquatic life with long lasting effects.

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

Resp. Sens. 1 H334 Calculation method Skin Sens. 1 H317 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



Productname: Adhesive H-PU1

Ford Internal Ref.: 195087 **Revision Date:** 17.06.2025

Involved Products:

Finiscode **Part Number Packaging**

1 935 159 FU7J M2G316 AA 310 ml Part of Kit

Windscreen Adhesive Kit – 1 Component H1-310 2 053 958 FU7J T03863 AB