ADHESIVE H-PU1

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

ISSUE DATE: 07.05.2015
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1. SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name	Adhesive H-PU1
Product code	Ford Internal Ref.: 195087
SDS Number	5890
Product use	Professional use

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

Relevant identified uses	Adhesives, sealants
Uses advised against	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)

2. SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008

Health hazards	Respiratory sensitisation, Category 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008

Hazard pictograms

Signal word	Danger
Contains	4,4'-methylenediphenyl diisocyanate

Hazard statements

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

Precautionary statements

Prevention

P261	Avoid breathing vapours.

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.

Supplemental hazard information

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.

3. 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	Notes
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 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 ≤C ≤ 100) Resp. Sens. 1, H334 (5 ≤C ≤ 100) Eye Irrit. 2, H319 (5 ≤C ≤ 100) Skin Irrit. 2, H315 (5 ≤C ≤ 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-statements: see section 16

4. SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Call a poison center or a doctor if you feel unwell. Never give anything by mouth to an unconscious person.
Inhalation	Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
Skin contact:	Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention.
Eyes 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 ophtalmologist if irritation persists.
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.
Symptoms/effects after skin contact	Repeated or prolonged skin contact may cause irritation.

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

Treat symptomatically.

5. 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 combustion products 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.

6. SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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.

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

Methods for cleaning up Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small spills: Clean surface thoroughly to remove residual contamination. Wipe up with absorbent material (for example cloth). Spill area may be slippery. 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".

7. 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.

8. SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Contains no substances with occupational exposure limits.

DNEL: Derived no effect level

No data available

Components	Type	Route	Value	Form
Oxydipropyl dibenzoate (27138-31-4)	Worker	Dermal	170 mg/kg dwt	Acute - local effects
		Dermal	10 mg/kg bodyweight/day	Long-term - systemic effects
		Inhalation	8.8 mg/m³	Long-term - systemic effects
	Consumer	Inhalation	8.7 mg/m³	Acute - systemic effects
		Oral	80 mg/kg bodyweight	Acute - systemic effects
		Dermal	80 mg/kg bw/day	Acute - local effects
		Oral	5 mg/kg bodyweight/day	Long-term - systemic effects
		Inhalation	8.69 mg/m³	Long-term - systemic effects
		Dermal	0.22 mg/kg bodyweight/day	Long-term - systemic effects
4,4'-methylenediphenyl diisocyanate (101-68-8)	Worker	Inhalation	0.1 mg/m³	Acute - local effects
		Inhalation	0.05 mg/m³	Long-term - local effects
	Consumer	Inhalation	0.05 mg/m³	Acute - local effects
		Inhalation	0.025 mg/m³	Long-term - local effects

PNEC: Predicted no effect concentration

No data available

Components	Type	Route	Value	Form
Oxydipropyl dibenzoate (27138-31-4)	Not applicable	Freshwater	3.7 µg/L	
		Seawater	0.37 µg/L	
		Freshwater	37 µg/L	Intermittent release
		sediment	1.49 mg/kg dwt	Freshwater
		sediment	0.149 mg/kg dwt	Seawater
		Soil	1 mg/kg dwt	
		Oral	333 mg/kg food	Secondary Poisoning
		STP	10 mg/l	
4,4'-methylenediphenyl diisocyanate (101-68-8)	Not applicable	Freshwater	1 mg/l	
		Seawater	0.1 mg/l	
		Freshwater	10 mg/l	Intermittent release
		Soil	1 mg/kg dwt	
		STP	1 mg/l	

8.2. Exposure 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

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
Individual protection measures, such as personal protective equipment (PPE)	
Eye protection	EN 166. Safety glasses. Wear security glasses which protect from splashes
Skin protection	
Hand protection	EN 374. Protective gloves. 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 protective measures	No additional information available.
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
Skin and body protection	Wear suitable protective clothing,Long sleeved protective clothing
Thermal hazard protection	Wear appropriate thermal protective clothing, when necessary.
Environmental exposure controls	Avoid release to the environment.

9. SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Paste.
Colour	Black.
Odour	Characteristic.
Odour threshold	No data available
pH	No data available
Relative evaporation rate (butylacetate=1)	No data available
Melting point	Not applicable
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	Not applicable
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	No data available
Density	1.24 g/cm³ @ 20°C
Solubility	insoluble in water.
Log Pow	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	4606 mPa·s
Explosive properties	No data available
Oxidising properties	No data available
Explosive limits	No data available

9.2. Other information

VOC (EU) 0.3 %

10. 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.

11. SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity Based on available data, the classification criteria are not met.

Mixture

Name	Method	Type	Exposure route	Value	Unit	Species	Remarks
Adhesive H-PU1	(calculated value)	ATE	Inhalation	> 20	mg/l		
	(calculated value)	ATE	Inhalation	> 5	mg/l		

Substance

Name	Method	Type	Exposure route	Value	Unit	Species	Remarks
4,4'-methylenediphenyl diisocyanate (101-68-8)	(acc. CLP 3.1.2)	ATE	Inhalation	11	mg/l/4h		vapours
	(acc. CLP 3.1.2)	ATE	Inhalation	1,5	mg/l/4h		dust, mist

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.

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

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

STOT-repeated exposure Based on available data, the classification criteria are not met

Aspiration hazard Based on available data, the classification criteria are not met

Potential adverse human health effects and symptoms Avoid prolonged exposure : Isocyanates. Exposure may produce an allergic reaction.

12. SECTION 12: Ecological information

12.1. Toxicity

Ecology - general 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.

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. 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.

13. SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) 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 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.

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

14. SECTION 14: Transport information

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

Not regulated for transport

15. SECTION 15: Regulatory information

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

EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006

Adhesive H-PU1	3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10

Oxydipropyl dibenzoate	3(c) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
4,4'-methylenediphenyl diisocyanate	56. Methylenediphenyl diisocyanate (MDI)
4,4'-methylenediphenyl diisocyanate	56(a) Methylenediphenyl diisocyanate (MDI) isomers: 4,4'-Methylenediphenyl diisocyanate

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

VOC (EU)	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.
Seveso Information	Not applicable

National regulations

No additional information available.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

16. SECTION 16: Other information

Indication of changes

Section 1 - Section 16.

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
AGW	Occupational exposure limit value
ATE	Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
BAM	Federal Institute for Materials Research and Testing, Germany
BAT	Maximum permissible concentration of biological working substances.
BCF	Bio-concentration factor.
BLV	Biological limit values
BLV	Biological limit values (BGW, Austria)
BMGV	Biological Monitoring Guidance Value (EH40,UK).
BOD5	Biochemical oxygen demand within 5 days
BOD	Biochemical oxygen demand
bw	Body weight.
calcd.	Calculated
CAS	Chemical Abstract Service.
CEN	European Committee for Standardization
CESIO	European Committee on Organic Surfactants and their Intermediates.
COD	Chemical oxygen demand
CLP	Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.
CMR	Carcinogenic, Mutagenic or Reproduction Toxic Substances
CSA	Chemical safety assessment
CSR	Chemical Safety Report.

DMEL	Derived Minimum Effect Level.
DNEL	Derived no effect level
EAC	European waste catalogue
EC	European community
EC50	Effective concentration
EINECS	European Inventory of Existing Commercial Chemical Substances.
ELINCS	European List of Notified Chemical Substances.
EN	European norm.
ERC	ERC (Environmental Release category)
EU	European Union
GLP	Good Laboratory Practice.
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.
GW/VL	Occupational exposure limit value.
GW-kw/VL-cd	Occupational exposure limit value - short term.
GW-M/VL-M	Occupational exposure limit value – "Ceiling".
IATA	International Air Transport Association
IBC code	International Bulk Chemical (Code) (International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk).
ICAO	International Civil Aviation Organization
IC50	Inhibition Concentration 50%.
IECSC	Inventory of Existing Chemical Substances in China.
IMDG	International Maritime Dangerous Goods
ISO	International Standards Organization.
IUPAC	International Union of Pure and Applied Chemistry
LC50	Lethal Concentration 50%.
LCLo	Lowest published lethal concentration.
LD50	Lethal Dose 50%.
LOAEL	Lowest Observed Adverse Effect Level
LOEC	Lowest observable effect concentration.
LOEL	Lowest observable effect level.
LQ	Limited quantities
TRK-Kzw	Threshold limit value - Short-term exposure limit / Technical reference concentration - short-time value, Austria.
MAK-Mow	Maximum allowable workplace concentration – instantaneous value, Austria.
MAK-Tmw, TRK-Tmw	Maximum allowable workplace concentration – daily mean value / Technical standard concentration – daily mean value, Austria.
MAK	Threshold limit values Germany.
MARPOL	International Convention for the Prevention of Pollution from Ships.
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
NOEL	no-observed-effect level
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limits
PBT	Persistent Bioaccumulative Toxic
PC (Chemical product category)	PC (Chemical product category)

PNEC	Predicted No-Effect Concentration
POCP	Photochemical ozone creation potential.
POP	Persistent Organic Pollutants
PPE	Personal protective equipment
Process category	Process category
REACH	Registration, Evaluation and Authorization of Chemicals (REGULATION (EC) No 1907/2006 concerning Registration, Evaluation Authorization and Restriction of Chemicals).
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SCL	Specific concentration limit.
STEL	Short-term Exposure Limit
STP	Sewage treatment plant
SU (Sector of use)	SU (Sector of use)
SVHC	Substance of Very High Concern.
TLV	Threshold Limit Value
TRGS	Technical Rules for Hazardous Substances (German Standard).
TWA	Time Weighted Average
UVCB	Substances of Unknown or Variable composition, Complex reaction products or Biological materials
VbF	Ordinance on Flammable Liquids, Austria
VOC	Volatile organic compounds
vPvB	Very Persistent and Very Bioaccumulative
WEL-TWA	Workplace Exposure Limit-Long term exposure limit (8-hour TWA(=time weighted average)reference period).
WEL-STEL	Workplace Exposure Limit-Short term exposure limit (15-minute reference period).
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. 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

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: Adhesive H-PU1

Ford Int. Ref. No.: 195087 REVISION DATE: 09.04.2021

Involved Products:

	Finiscode	Part number	Container Size:
. 1	1 935 159	FU7J M2G316 AA	310 ml
Part of Kit:			
	2 053 958	FU7J T03863 AB	Windscreen Adhesive Kit – 1 Component H1-310
. 2		FU7J M2G316 BA	400 ml
Part of Kit:			
	2 053 960	FU7J T03863 CB	Windscreen Adhesive Kit – 1 Component H1-400