TRANSMISSION FLUID AWD-FVA

SAFETY DATA SHEET

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

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VERSION: 1.0

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

1.1. Product identifier

Product form	:	Mixture
Trade name	:	Transmission Fluid AWD-FVA
Product code	:	Ford Int. Ref. No.: 505687
SDS Number	:	9253
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	:	Lubricant

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

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

2.2. Label elements

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

EUH-statements	EUH208 - Contains C14-18 alpha-olefin epoxide, reaction products with boric acid. May produce an allergic reaction. EUH210 - Safety data sheet available on request.

2.3. Other hazards

Other hazards which do not result in classification	:	Defatting of the skin.

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.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Comments : Highly refined mineral oil, < 3% (w/w) DMSO-extract, IP346
Additives

Chemical name	CAS- No EC- No Index No RRN	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Notes
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	72623-87-1 276-738-4 649-483-00-5 01-2119474889-13-XXXX	70 - < 90	Asp. Tox. 1, H304	(Note L)
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	4259-15-8 224-235-5 01-2119493635-27-XXXX	1 - < 2,5	Eye Dam. 1, H318 Aquatic Chronic 2, H411	(50 ≤C ≤ 100) Eye Dam. 1, H318
C14-18 alpha-olefin epoxide, reaction products with boric acid	1471314-23-4 939-580-3 01-2119976364-28-XXXX	0,1 - < 1	Skin Sens. 1B, H317	

Note L: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method" Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.
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 immediately all 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 after skin contact : May cause an allergic skin reaction. Repeated or prolonged skin contact may cause dermatitis and defatting.
Symptoms/effects after eye contact : Direct contact with the eyes is likely to be irritating. Exposure may cause temporary irritation, redness, or discomfort.
Symptoms/effects after ingestion : Nausea. Diarrhea.

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 : Foam. dry chemical powder. carbon dioxide (CO2).
Unsuitable extinguishing media : Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Heat may cause pressure rise with explosion of tanks/drums.
Hazardous decomposition products in case of fire : Carbon oxides (CO, CO2). Phosphorus oxides. Sulphur 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 protective equipment as required.
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	:	Large Spills: Stop leak if safe to do so. 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.
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	:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid release to the environment. Avoid contact with skin, eyes and clothing.
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. Do not handle, store or open near an open flame, sources of heat or sources of ignition.

7.3. Specific end use(s)

Lubricant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

Mineral oil, mist	
United Kingdom - Occupational Exposure Limits	
Local name	Mineral oil - unspecified
WEL TWA (OEL TWA) [1]	5 mg/m³
WEL STEL (OEL STEL)	10 mg/m³

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

Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based (72623-87-1)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	0.97 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2.73 mg/m³
Long-term - local effects, inhalation	5.58 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, oral	0.74 mg/kg bodyweight
PNEC (Oral)	
PNEC oral (secondary poisoning)	9.33 mg/kg food

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	9.6 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	6.6 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	0.19 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.67 mg/m³
Long-term - systemic effects, dermal	4.8 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	4 µg/L
PNEC aqua (marine water)	4.6 µg/L
PNEC aqua (intermittent, freshwater)	44 µg/L
PNEC (Sediment)	
PNEC sediment (freshwater)	0.322 mg/kg dwt
PNEC sediment (marine water)	0.032 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.062 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	8.33 mg/kg food

PNEC (STP)

PNEC sewage treatment plant	3.8 mg/l

C14-18 alpha-olefin epoxide, reaction products with boric acid (1471314-23-4)

DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	16.7 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	5.88 mg/m³

DNEL/DMEL (General population)

Long-term - systemic effects,oral	0.83 µg/kg wet weight
Long-term - systemic effects, inhalation	1.45 mg/m³
Long-term - systemic effects, dermal	8.3 mg/kg bodyweight/day

PNEC (Water)

PNEC aqua (freshwater)	0.2 mg/l
PNEC aqua (marine water)	0.02 mg/l

PNEC (Sediment)

PNEC sediment (freshwater)	8556 mg/kg dwt
PNEC sediment (marine water)	855.6 mg/kg dwt

PNEC (Soil)

PNEC soil	1706.3 mg/kg dwt

PNEC (Oral)

PNEC oral (secondary poisoning)	33.3 mg/kg food

PNEC (STP)

PNEC sewage treatment plant	100 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. EN 374

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 CEN 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. Wear a respirator conforming to EN140 with Type A filter or better. Wear a half-mask respirator, selected in accordance with EN529

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
Appearance	:	Liquid.
Colour	:	amber.
Odour	:	No data available
Odour threshold	:	No data available
pH	:	Not applicable
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	No data available
Pour point	:	-54 °C
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	212 °C Open cup [Cleveland]
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Density	:	< 1 g/cm³ @ 15°C
Solubility	:	insoluble in water.
Log Pow	:	No data available
Viscosity, kinematic	:	25.5 – 31.5 mm²/s @ 40°C 5.2 – 6.8 mm²/s @ 100°C
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

9.2. Other information

VOC (EU)	:	Not applicable.

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

Avoid heat, sparks, open flames and other ignition sources.

10.5. Incompatible materials

Oxidising agents.

10.6. Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)	
LD50 oral rat	3100 mg/kg (OECD 401 method)

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

Serious eye damage/irritation : Based on available data, the classification criteria are not metEye irritation classification does not apply based on test data. Expert judgment
pH: Not applicable

Respiratory or skin sensitisation : Based on available data, the classification criteria are not met
Germ cell mutagenicity : Based on available data, the classification criteria are not met
Carcinogenicity : Based on available data, the classification criteria are not met (All hydrocarbons in this mixture: Note L is applicable (DMSO <3%), therefore no classification as carcinogen)
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

Transmission Fluid AWD-FVA	
Viscosity, kinematic	25.5 – 31.5 mm²/s @ 40°C

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

12.2. Persistence and degradability

Transmission Fluid AWD-FVA

Persistence and degradability	Expected to be biodegradable.

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)

Biodegradation	5 % 28 days (OECD 301B methode)

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

Transmission Fluid AWD-FVA

Ecology - soil — Spillages may penetrate the soil causing ground water contamination.

12.5. Results of PBT and vPvB assessment

Transmission Fluid AWD-FVA

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.

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.

Product/Packaging disposal recommendations : Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken for recycling, recovery or waste in accordance with local regulation.

European List of Waste (LoW) code : The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
13 02 05* - mineral-based non-chlorinated engine, gear and lubricating oils
15 01 10* - packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

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

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)	Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based ; Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) ; C14-18 alpha-olefin epoxide, reaction products with boric acid
3(c)	Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : Not applicable.

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:

None.

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

Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
EUH208	Contains C14-18 alpha-olefin epoxide, reaction products with boric acid. May produce an allergic reaction.
EUH210	Safety data sheet available on request.

Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H411	Toxic to aquatic life with long lasting effects.
Skin Sens. 1B	Skin sensitisation, category 1B

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: Transmission Fluid AWD-FVA

Ford Int. Ref. No.: 505687 REVISION DATE: 07.12.2021

Involved Products:

	Finiscode	Part number	Container Size:
1	2 605 444	MU7J 8708687 AA	850 ml