



SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

SDS # : 083215

TRANSMISSION AXLE 8 75W-90

Date of the previous version: 2015-03-24

Revision Date: 2016-12-29

Version 1.01

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name	TRANSMISSION AXLE 8 75W-90
Number	DEJ
Substance/mixture	Mixture

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

Identified uses	Transmission fluid.
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1.3. Details of the supplier of the safety data sheet

Supplier	TOTAL LUBRIFIANTS 562 Avenue du Parc de L'île 92029 Nanterre Cedex FRANCE Tél: +33 (0)1 41 35 40 00 Fax: +33 (0)1 41 35 84 71
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For further information, please contact:

Contact Point	HSE
E-mail Address	rm.msds-lubs@total.com

1.4. Emergency telephone number

Emergency telephone: +44 1235 239670
 France - ORFILA (INRS) Tél : +33 (0)1 45 42 59 59
 In France - Poison centers:
 ANGERS : 02 41 48 21 21
 BORDEAUX : 05 56 96 40 80
 LILLE : 08 00 59 59 59
 LYON : 04 72 11 69 11
 MARSEILLE : 04 91 75 25 25
 NANCY : 03 83 22 50 50
 PARIS : 01 40 05 48 48
 STRASBOURG : 03 88 37 37 37
 TOULOUSE : 05 61 77 74 47

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture**REGULATION (EC) No 1272/2008**

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For the full text of the H-Statements mentioned in this Section, see Section 2.2.

Classification

The product is not classified as dangerous according to Regulation (EC) No. 1272/2008

2.2. Label elements

Labelled according to REGULATION (EC) No 1272/2008

Hazard Statements

None

Precautionary Statements

None***

Supplemental Hazard Statements

EUH210 - Safety data sheet available on request***

Contains Polysulfides, di-tert-butyl, Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentoxide, and salted by amines, C12-14- tert-alkyl May produce an allergic reaction

2.3. Other hazards

Physical-Chemical Properties Contaminated surfaces will be extremely slippery.***

Environmental properties Should not be released into the environment.***

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixture

Chemical nature

The product is made from refined mineral base oils and synthetic oils .
The product is made from synthetic base oils (Polyalphaolefins) .***

Chemical Name	EC-No	REACH registration No	CAS-No	Weight %	Classification (Reg. 1272/2008)
Polysulfides, di-tert-butyl***	273-103-3***	no data available	68937-96-2	2.5-<5	Skin Sens. 1 (H317) Aquatic Chronic 4 (H413)
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentoxide, and salted by amines, C12-14- tert-alkyl***	931-384-6***	01-2119493620-38	^	1-<2.5	Acute Tox. 4 (H302) Aquatic Chronic 2 (H411) Eye Dam. 1 (H318) Skin Sens. 1 (H317)***

Additional information Product containing mineral oil with less than 3% DMSO extract as measured by IP 346.

For the full text of the H-Statements mentioned in this Section, see Section 16.

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Section 4: FIRST AID MEASURES

4.1. Description of first-aid measures

General advice	IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids.
Skin contact	Remove contaminated clothing and shoes. Wash off with soap and water. Wash contaminated clothing before reuse.
Inhalation	Move to fresh air.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.

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

Eye contact	Not classified. The supplier of some components contained within this formulation has indicated that the classification as irritant is not required.***
Skin contact	Not classified. May produce an allergic reaction.
Inhalation	Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.
Ingestion	Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. ***

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

Notes to physician	Treat symptomatically.
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Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media	Carbon dioxide (CO ₂). ABC powder. Foam. Water spray or fog.
Unsuitable Extinguishing Media	Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Special Hazard	Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.
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5.3. Advice for fire-fighters

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Special protective equipment for fire-fighters Wear self-contained breathing apparatus and protective suit.

Other information Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

General Information Do not touch or walk through spilled material. Contaminated surfaces will be extremely slippery. Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.

6.2. Environmental precautions

General Information Do not allow material to contaminate ground water system. Try to prevent the material from entering drains or water courses. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Dam up. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

Personal Protective Equipment See Section 8 for more detail.

Waste treatment See section 13.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling When using, do not eat, drink or smoke. For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing.

Prevention of fire and explosion Take precautionary measures against static discharges: Ground/bond containers, tanks and transfer/receiving equipment.

Hygiene measures Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.

7.2. Conditions for safe storage, including any incompatibilities

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Technical measures/Storage conditions

Keep away from food, drink and animal feedingstuffs. Keep in a banded area. Keep container tightly closed. Keep preferably in the original container. Otherwise reproduce all indication of the regulation label on the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Protect from frost, heat and sunlight. Protect from moisture.

Materials to Avoid

Strong oxidizing agents.

7.3. Specific end uses

Specific use(s)

No information available.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

Mineral oil mist:
USA: OSHA (PEL) TWA 5 mg/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH (TLV) TWA 5 mg/m³ (highly refined)

Legend

See section 16

DNEL Worker (Industrial/Professional)

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Polysulfides, di-tert-butyl*** 68937-96-2			14.5 mg/m ³ Inhalation 3.33 mg/kg bw/day Dermal	
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14-tert-alkyl*** ^			12.5 mg/kg/8h (dermal) 8.56 mg/m ³ /8h (inhalation) (ECHA CHEM)	

DNEL Consumer

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Polysulfides, di-tert-butyl*** 68937-96-2			2.6 mg/m ³ Inhalation 1.66 mg/kg bw/day Dermal	
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide,			6.25 mg/kg/24h (dermal) 2.2 mg/m ³ /24h (inhalation) 0.25 mg/kg/24h (oral)	

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propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14-tert-alkyl*** ^			(ECHA CHEM)	
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Predicted No Effect Concentration (PNEC)

Chemical Name	Water	Sediment	Soil	Air	STP	Oral
Polysulfides, di-tert-butyl*** 68937-96-2	0.00024 mg/l fw 0000024 mg/l mw 0.0000024 mg/l or	7589 mg/kg dw fw 758.9 mg/kg dw mw	1513 mg/kg dw		4.51 mg/l	6.66 mg/kg food
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl*** ^	0.0012 mg/l fw 0.00012 mg/l mw 0.064 mg/ or	3.13 mg/kg fw 0.313 mg/kg mw	2.54 mg/kg soil dw		24.33 mg/l	10 mg/kg food

8.2. Exposure controls**Occupational Exposure Controls****Engineering Measures**

Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Personal Protective Equipment**General Information**

If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Respirator with combination filter for vapour/particulate (EN 14387). Type A/P1. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.

Eye Protection

If splashes are likely to occur, wear: Safety glasses with side-shields.

Skin and body protection

Wear suitable protective clothing. Protective shoes or boots. Long sleeved clothing.

Hand Protection

Hydrocarbon-proof gloves: Fluorinated rubber, Nitrile rubber. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. If used in solution, or mixed with other substances, and under conditions which differ from EN 374,

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contact the supplier of the EC approved gloves.

Environmental exposure controls

General Information The product should not be allowed to enter drains, water courses or the soil.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Color		yellow To amber	
Physical State @20°C		liquid	
Odor		Characteristic	
Odor Threshold		No information available	
Property	Values	Remarks	Method
pH		No information available	
Melting point/range		No information available	
Boiling point/boiling range		No information available	
Flash point	> 200 °C > 392 °F		Cleveland Open Cup (COC) Cleveland Open Cup (COC)
Evaporation rate		No information available	
Flammability Limits in Air		No information available	
Vapor Pressure		No information available	
Vapor density		No information available	
Relative density		No information available	
Density	875 kg/m ³	Not applicable	
Water solubility		Insoluble	
Solubility in other solvents		No information available	
logPow		No information available	
Autoignition temperature		No information available	
Decomposition temperature		No information available	
Viscosity, kinematic	118.2 mm ² /s 17 mm ² /s	@ 40 °C @ 100 °C	ISO 3104 ISO 3104
Explosive properties	Not explosive		
Oxidizing Properties	No information available		
Possibility of hazardous reactions	No information available		

9.2. Other information

Freezing Point No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

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General Information No information available.10.2. Chemical stability**Stability** Stable under recommended storage conditions.10.3. Possibility of hazardous reactions**Hazardous Reactions** None under normal processing.10.4. Conditions to Avoid**Conditions to Avoid** Heat (temperatures above flash point), sparks, ignition points, flames, static electricity.10.5. Incompatible materials**Materials to Avoid** Strong oxidizing agents.10.6. Hazardous Decomposition Products**Hazardous Decomposition Products** None under normal use.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects**Acute toxicity Local effects Product Information**

Skin contact	. Not classified. May produce an allergic reaction.
Eye contact	. Not classified. The supplier of some components contained within this formulation has indicated that the classification as irritant is not required.***
Inhalation	. Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.
Ingestion	. Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. ***
ATEmix (oral)	46,383.00 mg/kg
ATEmix (dermal)	33,035.00 mg/kg
ATEmix (inhalation-dust/mist)	56.60 mg/l
ATEmix (inhalation-vapor)	1,442.90 mg/l

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Polysulfides, di-tert-butyl***	= 6500 mg/kg (Rat)		
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14-tert-alkyl***	LD50 2000 mg/kg bw (Rat - OECD TG 401)		-

Sensitization

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Sensitization

Not classified as a sensitizer. Contains sensitizer(s). May produce an allergic reaction. The supplier of one of the components contained within this formulation has indicated that they have data, which confirms that at the concentration used, no sensitisation classification is required.

Specific effects

Carcinogenicity

This product is not classified carcinogenic.

Mutagenicity

This product is not classified as mutagenic.

Reproductive toxicity

This product does not present any known or suspected reproductive hazards.

Repeated Dose Toxicity

Subchronic toxicity

No information available.

Target Organ Effects (STOT)

Other information

Other adverse effects

Characteristic skin lesions (pimples) may develop following prolonged and repeated exposures (contact with contaminated clothing).

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Not classified.

Acute aquatic toxicity - Product Information

No information available.

Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
Polysulfides, di-tert-butyl*** 68937-96-2		EC50 (48h) > 1000 mg/L Daphnia magna	LC50 (96h) 250-500 mg/L Pimephales promelas (static) LC50 (96h) > 1000 mg/L Pimephales promelas (semi-static)	
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl*** ^	EL50 (96h) > 15 mg (Selenastrum capricornutum - OECD 201) EC50 (96h) 6.4 mg/l (Pseudokirchnerella subcapitata - OECD 201) EC50 (96h) 15 mg/l (Pseudokirchnerella subcapitata - OECD 201) EC50 (96h) 6.4 mg/L (Selenastrum	EL50 (48h) ca. 91.4 mg/l (Daphnia magna - OECD 202)	LL50 (96h) ca. 24 mg/l (Oncorhynchus mykiss - OECD 203)	

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	capricornutum- OECD TG 201) (ECHA CHEM)			
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Chronic aquatic toxicity - Product Information

No information available.

Chronic aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl*** ^	NOEC (96h) 1.7 mg/l (Pseudokirchnerella subcapitata - OECD 201) par NOEC (96h) 3.3 mg/l (Pseudokirchnerella subcapitata - OECD 201)	EL50 (21d) 0.91 mg/l (Daphnia magna - OECD 211) NOEL (21d) 0.12 mg/l (Daphnia magna - OECD 211) EL50 (21d) 0.66 mg/l (Daphnia magna - OECD 211)	-	EC50 (3h) ca. 2433 mg/L (Activated Sludge, domestic - OECD TG 209) (ECHA CHEM)

Effects on terrestrial organisms

No information available.

12.2. Persistence and degradability

General Information

No information available.

12.3. Bioaccumulative potential

Product Information

No information available.***

logPow

No information available

Component Information

Chemical Name	log Pow
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl*** - ^	< 0.30 to >7.10 (OECD TG 117) (ECHA CHEM)

12.4. Mobility in soil

Soil

Given its physical and chemical characteristics, the product generally shows low soil mobility.

Air

Loss by evaporation is limited.

Water

Insoluble. The product spreads on the surface of the water.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

No information available.

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12.6. Other adverse effects

General Information No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues / Unused Products	Should not be released into the environment. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations. Where possible recycling is preferred to disposal or incineration. After use, this oil must be sent to a licensed waste oil facility. Incorrect disposal of used oil poses a risk to the environment. Mixture with other waste types such as solvents, brake- and cooling liquids is forbidden.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.
EWC Waste Disposal No.	The following Waste Codes are only suggestions: 13 02 05, 13 02 06. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORT INFORMATION

<u>ADR/RID</u>	Not regulated
<u>IMDG/IMO</u>	Not regulated
<u>ICAO/IATA</u>	Not regulated
<u>ADN</u>	Not regulated

Section 15: REGULATORY INFORMATION

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

European Union

Further information

No information available

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15.2. Chemical Safety Assessment

Chemical Safety Assessment No information available

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

H317 - May cause an allergic skin reaction
 H413 - May cause long lasting harmful effects to aquatic life
 H302 - Harmful if swallowed
 H411 - Toxic to aquatic life with long lasting effects
 H318 - Causes serious eye damage
 H226 - Flammable liquid and vapor

Abbreviations, acronyms

ACGIH = American Conference of Governmental Industrial Hygienists
 bw = body weight
 bw/day = body weight/day
 EC x = Effect Concentration associated with x% response
 GLP = Good Laboratory Practice
 IARC = International Agency for Research of Cancer
 LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one half) of a group of test animals
 LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals
 LL = Lethal Loading
 NIOSH = National Institute of Occupational Safety and Health
 NOAEL = No Observed Adverse Effect Level
 NOEC = No Observed Effect Concentration
 NOEL = No Observed Effect Level
 OECD = Organization for Economic Co-operation and Development
 OSHA = Occupational Safety and Health Administration
 UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material
 DNEL = Derived No Effect Level
 PNEC = Predicted No Effect Concentration
 dw = dry weight
 fw = fresh water
 mw = marine water
 or = occasional release

Legend Section 8

TWA: Time Weight Average
 STEL: Short Time Exposure Limit
 PEL: Permissible exposure limit
 REL: Recommended exposure limit
 TLV: Threshold Limit Values

+	Sensitizer	*	Skin designation
**	Hazard Designation	C:	Carcinogen
M:	Mutagen	R:	Toxic to reproduction

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Revision Note *** Indicates updated section.

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This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

End of the Safety Data Sheet

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