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## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 PRODUCT IDENTIFIER PRODUCT TRADE NAME: TUTELA TRANSMISSION FE-GEAR PRODUCT CODE: 2313
- 1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE: Lubricant for gearbox.

USES ADVISED AGAINST

This product should not be used for other purposes than those specified without the advice of an expert.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

COMPANY IDENTIFICATION:

PETRONAS LUBRICANTS ITALY S.P.A.

 Via Santena 1
 10029
 Villastellone
 (Torino) - ITALY

 Tel: 0039 01196131
 Fax: 0039 0119613313

COMPETENT PERSON RESPONSIBLE FOR SAFETY DATA OF PRODUCT:

Information on the legislation compliance info\_regulation@it.petronas.com

## 1.4 EMERGENCY TELEPHONE NUMBER

0039 0382 24444 Pavia Poison Centre - IRCCS Maugeri Foundation, Italy (24/24 h, 7/7 d)

## 2. HAZARDS IDENTIFICATION

## 2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Directives 67/548/EEC or 1999/45/EC:

This product is not considered hazardous for people or for environment according to EC directives (see headings 11 and 12, too).

Regulation (EC) No 1272/2008

The classification of the product has been determined in conformity of Directives 67/548/EEC and 99/45/EC and following adjustments.

## 2.2 LABEL ELEMENTS

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INDICATIONS OF DANGER Not applicable. CONTAINS: RISK PHRASES Not applicable.

SAFETY PHASES

Not applicable.

OTHER INDICATIONS:

Contains phosphoric acid esters/amine salt, acrylate ester, 2-ethylhexyl methacrylate, lauryl methacrylate. May produce an allergic reaction.

## 2.3 OTHER HAZARDS

Prolonged or repeated skin contact sometimes may cause irritations and dermatitis.

Experimental data shown that the concentration of potentially sensitizing components present in this product does not induce skin sensitization (see heading 11, too).

The product is not readily biodegradable. In case of large accidental spills, it is a potential source of soil, watercourse and groundwater pollution.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

## 3.2 MIXTURES

Additive package containing nitrogen, sulphur, phosphorus, antioxidants and polymers.

Directive 67/548/EEC:

HAZARDOUS COMPONENTS	EINECS	CAS	REG_NUM	QUANTITY	SYMBOL	R- PHRASES
Reaction products of Benzeneamine, N- phenyl- with nonene (branched)	253-249-4	N.D.	01- 2119488911 - 28- XXXX	0.5-2%	-	53
Reaction products of bis(4-methylpentan-2- yl) dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched)	931-384-6	-	01- 2119493620 - 38- XXXX	0.5-1.5%	Xn, N	22 - 41 - 43 - 51/53
Alkylphenyl ether	Polymer	Polymer		<0.5%	Xi, N	36/38 - 51/53
Dodecyl methacrylate	205-570-6	142-90-5		<0.25%	Xi-N	43 - 36/37/38 - 50/53

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OTHER COMPONENTS	EINECS	CAS	REG_NUM	QUANTITY	SYMBOL	R- PHRASES
Severely refined paraffinic synthetic oils (EINECS n° 265- 157-1 / 500-183-1; Registration n° 01- 2119484627-25 / 01- 2119486452-34)	Mixture	Mixture		75-85%	-	-

Regulation (EC) No 1272/2008

HAZARDOUS COMPONENTS	EINECS	CAS	REG_NUM	QUANTITY	CLASS	H- PHRASES
Reaction products of Benzeneamine, N- phenyl- with nonene (branched)	253-249-4	N.D.	01- 2119488911 - 28- XXXX	0.5-2%	Aquatic Chronic 4	413
Reaction products of bis(4-methylpentan-2- yl) dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched)	931-384-6	-	01- 2119493620 - 38- XXXX	0.5-1.5%	Acute Tox. 4 Aquatic Chronic 2 Eye Dam. 1 Flam. Liq. 3 Skin Sens. 1	318 - 302 - 411 - 226 - 317
Alkylphenyl ether	Polymer	Polymer		<0.5%	Eye Irrit.2 Skin Irrit.2 Aquatic Chronic 2	319 - 315 - 411
Dodecyl methacrylate	205-570-6	142-90-5		<0.25%	Eye Irrit. 2 Skin Irrit. 2 Skin Sens. 1 STOT SE 3 Aquatic Acute 1 Aquatic Chronic 1	400 - 410 - 319 - 315 - 335 - 317

OTHER COMPONENTS	EINECS	CAS	REG_NUM	QUANTITY	CLASS	H- PHRASES
Severely refined synthetic and hydrotreated base oils	Mixture	Mixture	Mixture	75-85%	-	-

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R-phrases, H-phrases and list of abbreviations: see heading 16.

## 4. FIRST AID MEASURES

- 4.1 DESCRIPTION OF FIRST AID MEASURES
  - INGESTION:

Do not induce vomiting to avoid aspiration into the respiratory tracts. Obtain medical attention.

EYE CONTACT:

Rinse thoroughly with plenty of water for at least 10 minutes keeping eyelids open. Obtain medical attention if any pain or redness develops or persists.

SKIN CONTACT:

Remove contaminated clothes and shoes and rinse thoroughly with plenty of water and soap.

#### INHALATION:

Expose affected person to fresh air and obtain medical attention if necessary.

- 4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED Refer to section 11.
- 4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED Refer to section 4.1.

## 5. FIREFIGHTING MEASURES

## FLASH POINT: >200°C (ASTM D 92)

5.1 EXTINGUISHING MEDIA

This product has no special fire risk. In case of fire use foam, carbon dioxide, dry chemical powder and water mist.

Avoid high pressure water jet. Use water jet only to cool down surfaces exposed to fire.

#### 5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Don't breathe combustion fumes: fire can form harmful compounds.

COMBUSTION PRODUCTS:

Oxides of carbon, compounds of sulphur, phosphorus, nitrogen and products of incomplete combustion.

## 5.3 ADVICE FOR FIREFIGHTERS

Protective clothing complete with autobreathing feature.

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## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Avoid contact with skin and eyes by wearing appropriate protective clothing. Surfaces on which the product has been spilled may become slippery.

#### 6.2 ENVIRONMENTAL PRECAUTIONS

Prevent the material from entering soil, sewers and water courses. Contact the appropriate authorities if necessary.

## 6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

In case of large spills dike and pump into suitable containers for disposal. Contain small spills with absorbent material. Put dirty material in suitable container. Dispose of dirty material in accordance with local or national regulations.

## 6.4 REFERENCE TO OTHER SECTIONS

Refer to sections 8 and 13 for more information.

## 7. HANDLING AND STORAGE

#### 7.1 PRECAUTIONS FOR SAFE HANDLING

Avoid frequent and prolonged skin contact and contact with eyes. Provide adequate ventilation to avoid mist or aereosol. Practice reasonable personal cleanliness. Avoid the risk of sliding.

## 7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Store under cover in the original container securely closed away from heat and sources of ignition. Do not store in the open air. Assure a correct ventilation of premises and the control of possible leak.

#### 7.3 SPECIFIC END USE(S)

Refer to the uses listed in Section 1.2.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### 8.1 CONTROL PARAMETERS

OCCUPATIONAL EXPOSURE LIMITS:

About monitoring procedures, refer to relevant national and European legislation.

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The recommended exposure limits (ACGIH) are:

CHEMICAL AGENT		LIMIT
oil mists	TLV/TWA (8 h)	5 mg/m3
oil mists	TLV/STEL	10 mg/m3

## 8.2 EXPOSURE CONTROLS

## TECHNICAL PRECAUTIONS:

Avoid production and diffusion of mist and aereosol with utilization of localized ventilation/aspiration or other required precautions. If necessary, adopt all required precaution to avoid product immission in environment (e.g., blasting systems, catch basins, ...).

## **RESPIRATORY PROTECTION:**

None required under normal conditions of use. Use approved full face respirator with organic vapour filter cartridge if the recommended exposure limits are exceeded.

## HAND AND SKIN PROTECTION:

Wear suitable gloves in oil-proof material (i.e. neoprene, nitrile). Gloves should be changed when they show wear. The kind of gloves and the term of use must be decided from employer with regard to processing and to allow for legislation on personal protection equipment and glove producer's indications. Wear gloves only with clean hands.

Wear suitable protective clothing (for further information, refer to CEN-EN 14605); change it immediately in case of large contamination and wash it before subsequent use.

Practice reasonable personal cleanliness.

## EYE PROTECTION:

Chemical goggles and face shield in case of oil splashes.

#### ENVIRONMENTAL EXPOSURE CONTROLS:

Refer to technical precautions and also to sections 6.2, 6.3, 7.2, 12 and 13.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

## 9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

CHEMICAL AND PHYSICAL PROPERTIES	VALUE	METHOD
APPEARANCE	CLEAR LIQUID	
DENSITY 15°C	0.860 G/CM3	ASTM D 4052
WATER SOLUBILITY	INSOLUBLE	
VISCOSITY @ 100°C	9.65 CST	ASTM D 445

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INITIAL BOILING POINT	>250°C	ASTM D 1120
FLASH POINT	>200°C	ASTM D 92
ODOUR	NOT DETERMINED	
ODOUR THRESHOLD	NOT DETERMINED	
РН	NOT APPLICABLE	
MELTING POINT/FREEZING POINT	NOT DETERMINED	
EVAPORATION RATE	NOT DETERMINED	
FLAMMABILITY (SOLID, GAS)	NOT APPLICABLE	
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS	NOT DETERMINED	
VAPOUR PRESSURE	NOT DETERMINED	
VAPOUR DENSITY	NOT DETERMINED	
PARTITION COEFFICIENT: N- OCTANOL/WATER	NOT DETERMINED	
AUTO-IGNITION TEMPERATURE	NOT DETERMINED	
DECOMPOSITON TEMPERATURE	NOT DETERMINED	
EXPLOSIVE PROPERTIES	NONE	
OXIDISING PROPERTIES	NOT DETERMINED	

## 9.2 OTHER INFORMATION

CHEMICAL AND PHYSICAL PROPERTIES	VALUE	METHOD
POUR POINT	-42°C	ASTM D 97

## 10. STABILITY AND REACTIVITY

## 10.1 REACTIVITY

Read carefully all information provided in other sections of heading 10.

## 10.2 CHEMICAL STABILITY

The product is stable under normal conditions of use.

## 10.3 POSSIBILITY OF HAZARDOUS REACTIONS

Not expected under normal conditions of use.

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### 10.4 CONDITIONS TO AVOID

This product must be kept far from heat sources. In any case, avoid exposing product to temperatures above the flash point.

## 10.5 INCOMPATIBLE MATERIALS

Strong oxidizing agents, hard acids and bases.

## 10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Oxides of carbon, compounds of sulphur, phosphorus, nitrogen and hydrogen sulfide.

## 11. TOXICOLOGICAL INFORMATION

## 11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

## INGESTION:

Unlike to cause harm if accidentally swallowed in small doses, though ingestion of large quantities may cause gastro-intestinal effects.

#### INHALATION:

Inhalation of mists and vapours generated at elevated temperatures may cause respiratory irritation.

## EYE CONTACT:

Contact may cause slight irritations.

#### SKIN CONTACT:

Product is not an irritant, but prolonged or repeated contacts may cause irritations or dermatitis.

Experimental data, made by supplier of additive package, show that the concentration of potentially sensitizing components present in this product does not induce skin sensitization.

#### CARCINOGENICITY:

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

#### MUTAGENICITY:

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

## TOXICITY FOR REPRODUCTION:

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

## 12. ECOLOGICAL INFORMATION

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## 12.1 TOXICITY

This product is not classified dangerous for the environment.

Some product components are harmful to aquatic organisms and with long-term adverse effects in the aquatic environment.

## 12.2 PERSISTENCE AND DEGRADABILITY

This product is not classified dangerous for the environment, but it is considered not readily biodegradable.

The product is not soluble in water. In case of large spills, it is a potential source of soil, watercourse and groundwater pollution.

## 12.3 BIOACCUMULATIVE POTENTIAL

Not available.

## 12.4 MOBILITY IN SOIL

Given its physical and chemical characteristics, the product generally shows weak tendency to evaporation, little mobility in the ground and it can be adsorbed from soil.

## 12.5 RESULTS OF PBT AND VPVB ASSESSMENT

Not available.

## 12.6 OTHER ADVERSE EFFECTS

No effect known.

## 13. DISPOSAL CONSIDERATIONS

## 13.1 WASTE TREATMENT METHODS

Prevent contamination of soil, drains and surface waters.

Do not discharge in sewers, tunnels or water courses. Dispose in accordance with local or national regulations via authorised person/licensed waste disposal contractor.

The used product is to be considered a special waste to be classified in accordance to Directive 2008/98/EC on wastes and related legislation.

## 14. TRANSPORT INFORMATION

#### 14.1 UN NUMBER

Not applicable

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14.2 UN PROPER SHIPPING NAME

Not applicable

14.3 TRANSPORT HAZARD CLASS(ES)

Not applicable

14.4 PACKING GROUP

Not applicable

14.5 ENVIRONMENTAL HAZARDS

Not applicable

14.6 SPECIAL PRECAUTIONS FOR USER

Not applicable

14.7 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL73/78 AND THE IBC CODE Not applicable

## 15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

Regulation (EC) No 1272/2008, with all National and European related legislations - on classification, labelling and packaging of substances and mixtures - and following adjustments to technical and scientific progress.

Regulation (EC) No 790/2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

Directive 1999/45/EC and all following updates, together with its national realization, about classification, packaging and labelling of dangerous preparations

Regulation (EC) No 1907/2006, with all National and European related legislations - concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Regulation (EU) No 453/2010 amending Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Directives 89/391/EC, 89/654/EC, 89/655/EC, 89/656/EC, 90/269/EC, 90/270/EC, 90/394/EC, 90/679/EC and all following updates, togeher with its national realization, about improvement of worker safety and health

Directives 98/24/EC and all following updates, together with its national realization, about protection of worker safety and health against chemical agent risks

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Directive 1991/156/EC and all following updates, together with national waste legislation EC directives and national environment protection legislation (air, water and soil)

## 15.2 CHEMICAL SAFETY ASSESSMENT

This product contains substances for which chemical safety assessments are not yet available.

## 16. OTHER INFORMATION

The mineral base oils contained in this product are severely refined and contain less than 3% DMSO extract according to IP 346 method, and are therefore not classified as carcinogen according to Regulation (EC) No 1272/2008, note L.

Sheet complies with the criteria of Annex I of Regulation (EU) No. 453/2010 as well as with Regulation (EC) No. 1272/2008 and Directive 99/45/EC and following adjustments.

This product must not be used in applications other than recommended without first seeking the advice of the Technical Department.

As regard as the previous version this sheet has been changed at following headings: 3.

Caption about heading 3, R-phrases and H-statements:

- R 22 Harmful if swallowed.
- R 41 Risk of serious damage to eyes.
- R 43 May cause sensitisation by skin contact.
- R 53 May cause long-term adverse effects in the aquatic environment.
- R 36/38 Irritating to eyes and skin.
- R 36/37/38 Irritating to eyes, respiratory system and skin.
- R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- H 318 Causes serious eye damage
- H 400 Very toxic to aquatic life
- H 410 Very toxic to aquatic life with long lasting effects
- H 319 Causes serious eye irritation
- H 315 Causes skin irritation
- H 302 Harmful if swallowed
- H 335 May cause respiratory irritation

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H 413 May cause long lasting harmful effects to aquatic life
H 411 Toxic to aquatic life with long lasting effects
H 226 Flammable liquid and vapour
H 317 May cause an allergic skin reaction

List of abbreviations used:

- N.A. Not applicable
- N.D. Not available
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: Very Persistent and very Bioaccumulative
- DNEL: Derived No-Effect Levels
- PNEC: Predicted No-Effect Concentration

This product must be stored, handled and used according to correct industrial hygienic practices and in compliance with laws in force.

The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be considered as any guarantee of specific properties.