



SAFETY DATA SHEET
In accordance with ICOP
REPSOL TRANSMISSION EPM 140 (RA301K)

SECTION 1. IDENTIFICATION OF THE HAZARDOUS CHEMICAL AND OF THE SUPPLIER

- 1.1 Product identifier** : REPSOL TRANSMISSION EPM 140 (RA301K)
- 1.2 Recommended use of the chemical and restrictions on use:**
Relevant uses : Lubricant
Uses advised against : All uses not specified in this section or in section 7.3
- 1.3 Supplier details (including name, address, phone number, etc.):**
REPSOL LUBRICANTES Y ESPECIALIDADES, S.A.
Méndez Álvaro, 44
28045 MADRID - Madrid - Spain
Phone: +34 917538000 /+34 917538100
Fax: +34 902303145
FDSRLESA@repsol.com
- 1.4 Emergency phone number:**
UMW Lubricant International Sdn Bhd: +603 5163 5000
Carechem 24: +44 (0) 1235 239 670, +1 215 207 0061, 001866 928 0789

SECTION 2. HAZARD IDENTIFICATION

- 2.1 Classification of the hazardous chemical:**
P.U. (A) 310/2013:
The product is not classified as hazardous chemical according to the Industry Code of Practice on Chemical Classification and Hazard Communication (ICOP).
- 2.2 Label elements**
P.U. (A) 310/2013:
None
- 2.3 Other hazards which do not result in classification:**
Not applicable

SECTION 3. COMPOSITION AND INFORMATION OF THE INGREDIENTS OF THE HAZARDOUS CHEMICAL

- 3.1 Substances:**
Not applicable
- 3.2 Mixtures:**
Chemical descriptions: Mixture based on hydrocarbons and additives
Components:
In accordance with Fifth Schedule of the P.U. (A) 310/2013, the product contains:

Identification	Chemical name/ Classification	Concentration
CAS: 68937-96-2	Polysulfides, di-tert-Bu Aquatic Chronic 4: H413; Skin Sens.1:H317 - Warning	0.29 - <0.9%

To obtain more information on the risk of the substances consult sections 8, 11, 12 and 16.



SAFETY DATA SHEET
In accordance with ICOP
REPSOL TRANSMISSION EPM 140 (RA301K)

SECTION 4. FIRST-AID MEASURES

4.1 Description of necessary first-aid measures

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/ aspiration:

In case of consumption, seek immediate medical assistance showing the SDS of this product.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Not applicable

SECTION 5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Physicochemical hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.



SAFETY DATA SHEET
In accordance with ICOP
REPSOL TRANSMISSION EPM 140 (RA301K)

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:

Avoid spillage into an aqueous medium as it contains substances potentially dangerous for this. Contain the product absorbed in hermetically sealed containers. In the case of serious spillage into an aqueous medium notify the relevant authority.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See section 8 and 13.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3).

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Store in a cool, dry, well-ventilated location.

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5.

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SAFETY DATA SHEET
In accordance with ICOP
REPSOL TRANSMISSION EPM 140 (RA301K)

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the work environment, according to Occupational safety and health (use and standards of exposure of chemicals hazardous to health) regulations 2000, P.U. (A) 131/2000. There are no environmental limits for the substances contained in the product.

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as PPE


As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.


B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the professional exposure limits are exceeded.

C.- Specific protection for the hands

Pictogram	PPE	Remarks
 Hand Protection	Chemical protective gloves	Replace the gloves at any sign of deterioration.

D.- Ocular and facial protection

Pictogram	PPE	Remarks
 Face Protection	Panoramic glasses against liquid splash	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.



E.- Bodily protection

Pictogram	PPE	Remarks
	Work clothing	For professional use only.
	Anti-slip work shoes	None.

F.- Additional emergency measures

SAFETY DATA SHEET
In accordance with ICOP
REPSOL TRANSMISSION EPM 140 (RA301K)

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION (continue)

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2002	 Eyewash stations	DIN 12 899 ISO 3864-1:2002

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance:

Physical state at 20 °C: Liquid
Appearance: Characteristic
Color: Characteristic
Odor: Characteristic

Volatility:

Boiling point at atmospheric pressure: Not applicable *
Vapour pressure at 20 °C: Not applicable *
Vapour pressure at 50 °C: Not applicable *
Evaporation rate at 20 °C: Not applicable *

Product description:

Density at 20 °C: 889 - 915 kg/m³
Relative density at 20 °C: Not applicable *
Dynamic viscosity at 20 °C: Not applicable *
Kinematic viscosity at 20 °C: Not applicable *
Kinematic viscosity at 40 °C: 395 cSt
Kinematic viscosity at 100 °C: 26.3 – 29.1 cSt
Concentration: Not applicable *
pH: Not applicable *
Vapour density at 20 °C: Not applicable *
Partition coefficient n-octanol/ water 20 °C: Not applicable *
Solubility in water at 20 °C: Not applicable *
Solubility properties: Not applicable *
Decomposition temperature: Not applicable *
Melting point/freezing point: Not applicable *

Flammability:

Flash Point: 220 °C
Autoignition temperature: Not applicable *
Lower flammability limit: Not applicable *
Upper flammability limit: Not applicable *

9.2 Other information:

Surface tension at 20 °C: Not applicable *
Refraction index: Not applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.



SAFETY DATA SHEET
In accordance with ICOP
REPSOL TRANSMISSION EPM 140 (RA301K)

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected if the following technical instructions storage of chemicals. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with water	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

10.5 Incompatible materials:

Acids	Water	Combustive materials	Combustible materials	Others
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A.- Ingestion:

- Acute toxicity: Based on available data, the classification criteria are not met.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met.

B- Inhalation:

- Acute toxicity: Based on available data, the classification criteria are not met.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met.

C- Contact with the skin and the eyes:

- Contact with the skin: Based on available data, the classification criteria are not met.
- Contact with the eyes: Based on available data, the classification criteria are not met.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met.
- Mutagenicity: Based on available data, the classification criteria are not met.
- Reproductive toxicity: Based on available data, the classification criteria are not met.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met.
- Cutaneous: Based on available data, the classification criteria are not met.

F- Specific target organ toxicity (STOT)-time exposure:

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

G- Specific target organ toxicity (STOT)-repeated exposure:



SAFETY DATA SHEET
In accordance with ICOP
REPSOL TRANSMISSION EPM 140 (RA301K)

SECTION 11. TOXICOLOGICAL INFORMATION (continue)

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met.

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

H- Aspiration hazard:

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

Other information:

Not applicable

Specific toxicology information on the substances:

Identification	Acute Toxicity		Genus
	LD50 oral	LD50 dermal	
Polysulfides, di-tert-Bu CAS: 68937-96-2	>2000 mg/kg	>2000 mg/kg	
	>2000 mg/kg	>2000 mg/kg	
	Not applicable	Not applicable	

SECTION 12. ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

12.1 Ecotoxicity:

Not available

12.2 Persistence and degradability:

Not available

12.3 Bioaccumulative potential:

Not available

12.4 Mobility in soil:

Not available

12.5 Results of PBT and vPvB assessment:

Not applicable

12.6 Other adverse effects:

Not described

SECTION 13. DISPOSAL INFORMATION

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Malaysia legislation related to waste management:

ACT 127 - ENVIRONMENTAL QUALITY ACT 1974

ACT A1102 - ENVIRONMENTAL QUALITY (AMENDMENT) ACT 2001



SAFETY DATA SHEET
In accordance with ICOP
REPSOL TRANSMISSION EPM 140 (RA301K)

SECTION 14. TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to UNRTDG:

- 14.1 **UN Number:** Not applicable
- 14.2 **UN proper shipping name:** Not applicable
- 14.3 **Transport hazard class(es):** Not applicable
- Labels: Not applicable
- 14.4 **Packing group, if applicable:** Not applicable
- 14.5 **Environmental hazard:** No
- 14.6 **Special precautions which a user needs to be aware of, or needs to comply with, in connection either within or outside their premises**
Physico-Chemical properties: see section 9
- 14.7 **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:**
Not applicable

Transport of dangerous goods by sea:

With regard to IMDG 37-14:

- 14.1 **UN Number:** Not applicable
- 14.2 **UN proper shipping name:** Not applicable
- 14.3 **Transport hazard class(es):** Not applicable
- Labels: Not applicable
- 14.4 **Packing group, if applicable:** Not applicable
- 14.5 **Environmental hazard:** No
- 14.6 **Special precautions which a user needs to be aware of, or needs to comply with, in connection either within or outside their premises**
Physico-Chemical properties: see section 9
- 14.7 **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:**
Not applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2015:

- 14.1 **UN Number:** Not applicable
- 14.2 **UN proper shipping name:** Not applicable
- 14.3 **Transport hazard class(es):** Not applicable
- Labels: Not applicable
- 14.4 **Packing group, if applicable:** Not applicable
- 14.5 **Environmental hazard:** No
- 14.6 **Special precautions which a user needs to be aware of, or needs to comply with, in connection either within or outside their premises**
Physico-Chemical properties: see section 9
- 14.7 **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:**
Not applicable

SECTION 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

Occupational safety and health (classification, labelling and safety data sheet of hazardous chemicals) regulations 2013



SAFETY DATA SHEET
In accordance with ICOP
REPSOL TRANSMISSION EPM 140 (RA301K)

SECTION 15. REGULATORY INFORMATION (continue)

Occupational safety and health (notification of accident, dangerous occurrence, occupational poisoning and occupational disease) regulations 2004
Occupational safety and health (use and standards of exposure of chemicals hazardous to health) regulations 2000
Occupational safety and health (safety and health officer) regulations 1997
Occupational safety and health (safety and health committee) regulations 1996
Occupational safety and health (control of industrial major accident hazards) regulations 1996

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16. OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Part 3 of the INDUSTRY CODE OF PRACTICE ON CHEMICALS CLASSIFICATION AND HAZARDS COMMUNICATION 2014.

Texts of the legislative phrases mentioned in section 3.:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3.

P.U. (A) 310/2013:

Aquatic Chronic 4: H413 - May cause long lasting harmful effects to aquatic life

Skin Sens. 1: H317 - May cause allergic skin reaction

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

Department of Occupational Safety and Health, Ministry of Human Resources of Malaysia:
<http://www.dosh.gov.my/>

Abbreviations and acronyms:

ICOP: The Industry Code of Practice on Chemical Classification and Hazard Communication

UNRTDG: UN Recommendations on the Transport of Dangerous Goods

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5-day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

CL50: Lethal Concentration 50

EC50: Effective concentration 50

Log-POW: Octanol–water partition coefficient

Koc: Partition coefficient of organic carbon

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.