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

1.1. Product identifier

Product form: Mixture
Product name: 80W90 GL-5
Product code: 401020, 401021, 401023, 401024
Product group: Transmission Fluids
UFI CODE: 2XHY-7QRQ-F17F-V6MR

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

1.2.1. Relevant identified uses

Main use category: Industrial use, Professional use, Consumer use
Industrial/Professional use spec: Non-dispersive use
Function or use category: Lubricants and additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Valeo Service
70 Rue Pleyel
93200 Saint Denis France
Tel. +33 (0)1 49 45 32 32
Email: vsao.contact.mailbox@valeo.com

1.4. Emergency telephone number

Emergency number / Poison Center: +33 1 49 45 32 32 (working hours) / +33 3 83 85 21 92
OR Please contact local poison center ([https://apps.who.int/poisoncentres/PoisonCentres_201902.pdf](https://apps.who.int/poisoncentres/PoisonCentres_201902.pdf))

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Sensitisation — Skin, Category 1 H317

Full text of H statements: see section 16

2.2. Label elements

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

Hazard pictograms (CLP):

Signal word (CLP): Warning
Hazardous ingredients: Polysulphides, di-tert-Bu; Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl

Hazard statements (CLP): H317 - May cause an allergic skin reaction
Precautionary statements (CLP): P101 - If medical advice is needed, have product container or label at hand
P280 - Wear protective gloves, protective clothing
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

2.3. Other hazards

No additional information available
**SECTION 3: Composition/information on ingredients**

### 3.1. Substance
Not applicable

### 3.2. Mixture
Comments: The mineral oils in the product contain < 3% DMSO extract (IP 346)

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polysulphides, di-tert-Bu</td>
<td>(CAS No) 68937-96-2</td>
<td>1 - 4,9</td>
<td>Skin Sens. 1B, H317 Aquatic Chronic 3, H412</td>
</tr>
<tr>
<td>Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentoxide, and salted by amines, C12-14- tert-alkyl</td>
<td>(EC no) 931-384-6</td>
<td>0,1 - 0,75</td>
<td>Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411</td>
</tr>
<tr>
<td>N-Cis-9-octadecenyl-1,3-propanediamine</td>
<td>(CAS No) 7173-62-8</td>
<td>0,01 - 0,099</td>
<td>Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT RE 1, H372 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410</td>
</tr>
</tbody>
</table>

**Specific concentration limits:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>Specific concentration limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentoxide, and salted by amines, C12-14- tert-alkyl</td>
<td>(EC no) 931-384-6</td>
<td>(C &gt;= 50) Eye Dam. 1, H318</td>
</tr>
</tbody>
</table>

Full text of H-statements: see section 16

**SECTION 4: First aid measures**

#### 4.1. Description of first aid measures
- First-aid measures after inhalation: Not expected to require first aid measures.
- First-aid measures after skin contact: Wash skin with mild soap and water.
- First-aid measures after eye contact: In case of eye contact, immediately rinse with clean water for 10-15 minutes.
- First-aid measures after ingestion: Do not induce vomiting. Rinse mouth. Get immediate medical advice/attention.

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

- Symptoms/injuries after inhalation: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.
- Symptoms/injuries after skin contact: May cause sensitization by skin contact.
- Symptoms/injuries after eye contact: Not expected to present a significant eye contact hazard under anticipated conditions of normal use.
- Symptoms/injuries after ingestion: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

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

No additional information available

**SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media
- Unsuitable extinguishing media: Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

No additional information available

**SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel
- Protective equipment: Wear suitable protective clothing and gloves.
### 6.1.2. For emergency responders

**Protective equipment:**

Wear suitable protective clothing and gloves.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

**For containment:**

Impound and recover large spill by mixing it with inert granular solids.

**Methods for cleaning up:**

Detergent. Take up liquid spill into absorbent material sand, saw dust, kieselguhr.

**Other information:**

Spill area may be slippery. Use suitable disposal containers.

### 6.4. Reference to other sections

No additional information available

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- **Precautions for safe handling:**
  
  Avoid all unnecessary exposure. Both local exhaust and general room ventilation are usually required.

- **Handling temperature:**
  
  < 40 °C

- **Hygiene measures:**
  
  Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

#### 7.2. Conditions for safe storage, including any incompatibilities

- **Storage temperature:**
  
  < 40 °C

- **Storage area:**
  
  Store in dry, cool, well-ventilated area.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

- **Additional information:**
  
  5 mg/m3 for oil mists (TWA, 8h-workday) recommended, based upon the ACGIH TLV (Analysis according to US NIOSH Method 5026, NIOSH Manual of Analytical Methods, 3rd Edition).

#### 8.2. Exposure controls

**Personal protective equipment:**

Safety glasses. Gloves.

**Hand protection:**

Permeation time: minimum >480 min long term exposure; material / thickness [mm]: >0.35 mm. Nitrile rubber (NBR) /

**Skin and body protection:**

No special clothing/skin protection equipment is recommended under normal conditions of use

**Respiratory protection:**

No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Oily liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Yellow-brown</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
</tbody>
</table>
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Boiling point: No data available
Flash point: > 200 °C @ ASTM D92
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: 893 kg/m³ @15°C
Solubility: Slightly soluble, the product remains on the water surface.
Log Pow: No data available
Viscosity, kinematic: 144 mm²/s @ 40°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

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
None under normal conditions.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
None under normal conditions.

10.4. Conditions to avoid
No data available.

10.5. Incompatible materials
Strong oxidizers, acids, Bases.

10.6. Hazardous decomposition products
None under normal conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Not classified
Skin corrosion/irritation: Not classified
Serious eye damage/irritation: Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation: May cause an allergic skin reaction.
Germ cell mutagenicity: Not classified
Carcinogenicity: Not classified
Reproductive toxicity: Not classified
Specific target organ toxicity (single exposure) classified: Not
Specific target organ toxicity (repeated exposure): Not classified

Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl

NOAEL (oral, rat, 90 days) 150 mg/kg bodyweight/day @28d (OECD 407)
Aspiration hazard: Not classified

80W90 GL 5
Viscosity, kinematic 144 mm²/s @ 40°C
Hydrocarbon: Yes
SECTION 12: Ecological information

12.1. Toxicity

**Polysulphides, di-tert-Bu (68937-96-2)**

<table>
<thead>
<tr>
<th>EC50 Daphnia 1</th>
<th>63 mg/l @2d</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50 other aquatic organisms 1</td>
<td>&gt; mg/l</td>
</tr>
<tr>
<td>EC50 72h algae (2)</td>
<td>&gt; 100 mg/l</td>
</tr>
<tr>
<td>EC50 96h algae (1)</td>
<td>&gt; 10000 mg/l Slb @0.1DY</td>
</tr>
</tbody>
</table>

**Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl**

| LC50 fish 1 | 24 mg/l @4d Oncorhynchus mykiss |
| LC50 fish 2 | 8,5 mg/l Pimephales promelas @4d |
| EC50 Daphnia 1 | 91,4 mg/l Daphnia magna |
| EC50 72h algae (1) | 6,4 mg/l Selenastrum capricornutum |
| NOEC (chronic) | 3,2 mg/l Oncorhynchus mykiss @4d |
| NOEC chronic crustacea | 0,12 mg/l Daphnia magna @2d |
| NOEC chronic algae | 1,7 mg/l Selenastrum capricornutum @4d |

**N-Cis-9-octadecenyl-1,3-propanediamine (7173-62-8)**

| LC50 fish 1 | > 0,1 mg/l (Brachydanio rerio) |
| EC50 Daphnia 1 | > 0,01 mg/l (Daphnia magna) |
| EC50 72h algae (1) | > 0,01 mg/l |
| NOEC chronic crustacea | > 0,001 @21DY (Daphnia maga) |

12.2. Persistence and degradability

**80W90 GL 5**

Persistence and degradability: Not soluble in water, so only minimally biodegradable.

**Polysulphides, di-tert-Bu (68937-96-2)**

Biodegradation: 13 % % @OECD TG @28d

**Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl**

BOD (% of ThOD): 3,6 % ThOD @28d inherent sediment

Biodegradation: 7,4 % Sturm (28d) OECD TG 301B

12.3. Bioaccumulative potential

**Polysulphides, di-tert-Bu (68937-96-2)**

Log Kow: 6

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Additional information: Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

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

14.1. UN number

UN-No. (ADR): Not applicable
UN-No. (IMDG): Not applicable
UN-No. (IATA): Not applicable
UN-No. (ADN): Not applicable
UN-No. (RID): Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR): Not applicable
Proper Shipping Name (IMDG): Not applicable
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Proper Shipping Name (IATA) : Not applicable
Proper Shipping Name (ADN) : Not applicable
Proper Shipping Name (RID) : Not applicable

14.3. Transport hazard class(es)
ADR
Transport hazard class(es) (ADR) : Not applicable

IMDG
Transport hazard class(es) (IMDG) : Not applicable

IATA
Transport hazard class(es) (IATA) : Not applicable

ADN
Transport hazard class(es) (ADN) : Not applicable

RID
Transport hazard class(es) (RID) : Not applicable

14.4. Packing group
Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards
Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user
- Overland transport
Not applicable
- Transport by sea
Not applicable
- Air transport
Not applicable
- Inland waterway transport
Not applicable
- Rail transport
Not applicable

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code
Not applicable
SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 4)


Netherlands

SZW-lijst van kankerverwekkende stoffen : Polysulphides, di-tert-Bu is listed
SZW-lijst van mutagene stoffen : Polysulphides, di-tert-Bu is listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the substance or the mixture by the supplier
SECTION 16: Other information

Abbreviations and acronyms:

- ACGIH: American Conference of Governmental Industrial Hygienists
- TWA: Time Weighted Average
- TLV: Threshold Limit Value
- ASTM: American Society for Testing and Materials
- ADR: Accord Européen Relatif au Transport International des Marchandises Dangereuses par Route
- RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- ICAO: International Civil Aviation Organization
- IATA: International Air Transport Association
- STEL: Short Term Exposure Limit
- LD50: median Lethal Dose for 50% of subjects
- ATE: acute toxicity estimate
- LC50: median Lethal Concentration for 50% of subjects
- EC50: concentration producing 50% effect

Other information: The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

Full text of H- and EUH-statements:

<table>
<thead>
<tr>
<th>Acute Tox. 4 (Oral)</th>
<th>Acute toxicity (oral), Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Acute 1</td>
<td>Hazardous to the aquatic environment — Acute Hazard, Category 1</td>
</tr>
<tr>
<td>Aquatic Chronic 1</td>
<td>Hazardous to the aquatic environment — Chronic Hazard, Category 1</td>
</tr>
<tr>
<td>Aquatic Chronic 2</td>
<td>Hazardous to the aquatic environment — Chronic Hazard, Category 2</td>
</tr>
<tr>
<td>Aquatic Chronic 3</td>
<td>Hazardous to the aquatic environment — Chronic Hazard, Category 3</td>
</tr>
<tr>
<td>Eye Dam. 1</td>
<td>Serious eye damage/eye irritation, Category 1</td>
</tr>
<tr>
<td>Skin Corr. 1B</td>
<td>Skin corrosion/irritation, Category 1B</td>
</tr>
<tr>
<td>Skin Sens. 1</td>
<td>Sensitisation — Skin, Category 1</td>
</tr>
<tr>
<td>Skin Sens. 1B</td>
<td>Sensitisation — Skin, category 1B</td>
</tr>
<tr>
<td>STOT RE 1</td>
<td>Specific target organ toxicity — Repeated exposure, Category 1</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>H372</td>
<td>Causes damage to organs through prolonged or repeated exposure</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects</td>
</tr>
<tr>
<td>H412</td>
<td>Harmful to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.