

## Safety Data Sheet

### 1. Identification of the substance/preparation and of the company/undertaking

#### 1.1 Product Identifier

Trade Name : **PSL Rheotek PAO 2 Oil**  
 Substance name : 1-Decene, dimer, hydrogenated  
 CAS-No. : 68649-11-6  
 EC-No. : 500-228-5  
 EU REACH-Reg. No. : 01-2119493069-28-xxxx  
 REACH Status : Each component of the product is either registered or exempted from registration obligations according to REACH Regulation (EC) No.1907/2006

#### 1.2 Relevant Identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Manufacture of substances, distribution, Intermediate, Formulation, use in coatings, Lubricants, greases, release Products, Metal working fluids, use in functional fluids, Polymer, Use in Agrochemicals  
 Uses advised against : At this moment we have not identified any uses advised against

#### 1.3 Details of the Supplier

: Poulten Selfe and Lee Ltd. - PSL Calibration Laboratory  
 Russell House  
 Burnham Business Park  
 Burnham-on-Crouch  
 Essex  
 CM0 8TE  
 United Kingdom  
 +44 (0) 1621 787100

**1.4 Emergency telephone Number** : +44 (0) 1270 502 894 (24-hour transport emergency)

## 2. Hazards identification

### 2.1 Classification of the substance or mixture

Classification According to Regulation S.I 2019/720 (GB CLP)

Regulation S.I. 2019/720 (GB CLP)			
Hazard Class	Hazard Category	Target Organs	Hazard Statements
Acute toxicity (Inhalation)	Category 4	---	H332
Aspiration hazard	Category 1	---	H304

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

### Most important adverse effects

- Human Health : See Section 11 for toxicological information
- Physical and chemical Hazards : See Section 9/10 for physiological information
- Potential Environmental effects : See Section 12 for environmental information

## 2.2 Label elements

### Labelling according to Regulation S.I. 2019/720 (GB CLP)

Hazard Symbols	:	 
Signal Word	:	Danger
Hazard statements	:	H304 May be fatal if swallowed and enters airways H332 Harmful if inhaled
Precautionary Statements		
Prevention	:	P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P271 Use only outdoors or in a well-ventilated area
Response	:	P331 Do NOT induce vomiting P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell
Disposal	:	P501 Dispose of contents/container to an approved waste disposal plant.

### Hazardous components which must be listed on the label

- 1-Decene, dimer, hydrogenated

## 2.3 Other Hazards

This substance/mixture contains no components considered to be either persistent, bio-accumulative and toxic (PBT), or very persistent and very bio-accumulative (vPvB) at levels of 0.1% or higher.

### 3. Composition/information on ingredients

#### 3.1 Substances

Hazardous Components	Amount (%)	Classification (Regulation S.I. 2019/720 (GB CLP))	
		Hazard class/Hazard category	Hazard Statements
<b>1-Decene, dimer, Hydrogenated</b>			
CAS- No. : 68649-11-6	> = 90 - < = 100	Acute Tox.4 Inhalation Asp. Tox.1	H332 H304
EC-No. : 500-228-5			
EU REACH- : 01-2119493069-28-xxxx			
Reg No.			

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

### 4. First-aid measures

#### 4.1 Description of First Aid Measures

General Advice	: Take off all contaminated clothing immediately
If inhaled	: Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.
In case of skin contact	: Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.
In case of eye contact	: Rinse immediately with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.
If swallowed	: Clean mouth with water and drink plenty of water afterwards. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician

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

Symptoms	: See Section 11 for more detailed information on health effects and symptoms
Effects	: See Section 11 for more detailed information on health effects and symptoms

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

Treatment : Treat symptomatically

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### 5. Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media : Using extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : High volume water jet

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

Specific hazards during firefighting : Incomplete combustion may form toxic pyrolysis products

Hazardous combustion products : Carbon Monoxide, Carbon Dioxide (CO<sub>2</sub>)

#### 5.3 Advice for Firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus  
Wear personal protective equipment.

Further advice : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

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### 6. Accidental release measures

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

Personal precautions : Use personal protective equipment. Keep away unprotected persons. Ensure adequate ventilation. Avoid contact with skin and eyes. Do not breathe vapours or spray mist.

#### 6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

### 6.3 Methods and materials for containment and cleaning up

- |   |   |   |
|---|---|---|
| Methods and materials for containment and cleaning up | : | Use mechanical handling equipment. Keep in suitable, closed containers for disposal.  |
|   | : | Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders). Keep in suitable, closed containers for disposal. |
| Further information                                   | : | Treat recovered material as described in the section "Disposal considerations".   |

### 6.4 Reference to other sections

See Section 1 for emergency contact information  
See Section 8 for information on personal protective equipment  
See Section 13 for waste treatment information

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## 7. Handling and storage

### 7.1 Precautions for safe handling

- |                         |   |   |
|-------------------------|---|---|
| Advice on safe handling | : | Keep container tightly closed. Avoid formation of aerosol. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes, and clothing. Do not breathe vapours or spray mist. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity. |
| Hygiene measures        | : | Keep away from food, drink, and animal feeding stuffs. Smoking, eating, and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off all contaminated clothing immediately.  |

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

- |   |   |   |
|---|---|---|
| Requirements for storage areas and containers   | : | Store in original container.  |
| Advice on protection against fire and explosion | : | Normal measures for preventive fire protection.                               |
| Further information on storage conditions       | : | Keep tightly closed in a dry and cool place. Keep in a well-ventilated place. |
| Advice on common storage                        | : | Keep away from food, drink, and animal feeding stuffs                         |

- |                          |   |                          |
|--------------------------|---|--------------------------|
| <b>7.3 Specific uses</b> | : | No Information available |
|--------------------------|---|--------------------------|
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## 8. Exposure Controls/Personal Protection

### 8.1 Control parameters

#### Other occupational Exposure Limit Values

(Additional) Information : Contains no substances with occupational exposure limit values.  
 Contains no substances with occupational limit values

Component:	1-Decene, dimer, hydrogenated	CAS-No. 68649-11-6
<b>Derived No Effect Level (DNEL)/Derived Minimal Effect Level (DMEL)</b>		

DNEL : 60 mg/m<sup>3</sup>  
 Workers, short-term, Inhalation

DNEL : 50 mg/m<sup>3</sup>  
 Consumers, short-term, Inhalation

#### Derived No Effect Level (DNEL)/Derived Minimal Effect Level (DMEL)

DNEL : 60 mg/m<sup>3</sup>  
 Workers, short-term, Inhalation

DNEL : 50 mg/m<sup>3</sup>  
 Consumers, short-term, Inhalation

#### Predicted No Effect Concentration (PNEC)

No PNEC value was derived

### 8.2 Exposure controls

#### Appropriate engineering Controls

Refer to protective measures listed in sections 7 and 8.

#### Personal Protective equipment

##### *Respiratory Protection*

Advice : Required, if exposure limit is exceeded (e.g. OEL). When aerosol or mist is formed use suitable respiratory protection.

##### *Hand Protection*

Advice : Protective gloves complying with EN 374.  
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. Protective gloves should be replaced at first signs of wear.

*Eye Protection*

Advice : Safety glasses with side-shields conforming to EN166

*Skin and body protection*

Advice : Wear personal protective equipment

**Environmental exposure controls**

General Advice : Do not flush into surface water or sanitary sewer system.  
Avoid subsoil penetration

**9. Physical and Chemical Properties**

**9.1 Information on basic physical and chemical properties**

Form	: Liquid
Physical state	: Liquid
Colour	: Clear Colourless
Odour	: Odourless
Odour threshold	: No data available
Freezing point/range	: -73°C
Initial boiling point & boiling range	: 223°C
Flammability	: No data available
Upper explosion limit / upper flammability limit	: No data available
Lower explosion limit / lower flammability limit	: No data available
Flash Point	: 160°C Method: open cup

Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Self-Accelerating decomposition temperature (SADT)	: No data available
pH	: Not applicable
Viscosity - Dynamic	: No data available
Viscosity - kinematic	: No data available
Flow time	: No data available
Solubility (ies) Water solubility	: Insoluble
Solubility in other solvents	: No data available
Dissolution rate	: No data available
Partition coefficient: n-octanol/water	: No data available
Dispersion Stability	: No data available
Vapour pressure	: 1.3 hPa (75°C)
Relative density	: 0.8 (15.6°C)
Density	: 0.796 g/cm <sup>3</sup>
Bulk density	: No data available
Relative vapour density	: 9 (Air = 1.0)
Particle characteristics	: No data available

## 9.2 Other information

No data available

## 10. Stability and Reactivity

### 10.1 Reactivity

Advice : No Decomposition if stored and applied as directed

### 10.2 Chemical Stability

Advice : Stable under recommended storage conditions

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions



#### 10.4 Conditions to avoid

Conditions to avoid : No data available

#### 10.5 Incompatible materials

Materials to avoid : No data available

#### 10.6 Hazardous decomposition products

Hazardous decomposition products : No Decomposition if stored and applied as directed

## 11. Toxicological Information

### 11.1. Information on toxicological effects

Component:	1 Decene, dimer, hydrogenated	CAS-No. 68649-11-6
<b>Acute toxicity</b>		
<b>Oral</b>		
LD50	>5000mg/kg (Rat, male and female)	
<b>Inhalation</b>		
LC50	>1.81mg/l (Rat, male and female; 4 h; dust/mist) (OECD Test guideline 403)	
<b>Dermal</b>		
LD50	>3000mg/kg (Rabbit, male and female) (OECD Test Guideline 402)	
<b>Irritation</b>		
<b>Skin</b>		
Result	:	No skin irritation (Rabbit)
<b>Eyes</b>		
Result	:	No eye irritation (Rabbit)
<b>Sensitisation</b>		
Result	:	Not sensitizing (Maximisation Test: Guinea Pig) (OECD Test Guideline 406)
<b>CMR Effects</b>		
<b>CMR Properties</b>		
Carcinogenicity	:	No data available
Mutagenicity	:	In vitro tests did not show mutagenic effects In Vivo tests did not show mutagenic effects

Teratogenicity	: No data available
Reproductive Toxicity	: No toxicity to reproduction Information given is based on data obtained from similar substances
<b>Specific Target Organ Toxicity</b>	
<b>Single Exposure</b>	
Remarks	: No data available
<b>Repeated Exposure</b>	
Remarks	: No data available
<b>Other toxic properties</b>	
<b>Aspiration hazard</b>	
No data available	

## 11.2. Information on other hazards

<b>Data for the product</b>	
<b>Endocrine disrupting properties</b>	
No data available	

## 12. Ecological Information

### 12.1. Toxicity

<b>Component:</b>	<b>1 Decene, dimer, hydrogenated</b>	<b>CAS-No. 68649-11-6</b>
<b>Acute toxicity</b>		
<b>Fish</b>		
LL50	>1,000mg/l (Oncorhynchus mykiss ( rainbow trout); 96 h ) ( Semi-static test :OECD Test guideline 203)	
<b>Toxicity to daphnia and other aquatic invertebrates</b>		
EL50	>1,000mg/l (Daphnia magna (water flea) ; 48 h) (static test; OECD Test guideline 202)	
<b>Algae</b>		
EL50	> 1000 mg/l (Scenedesmus capricornutum (freshwater algae); 72 h) (static test; OECD Test Guideline 201)	

## 12.2 Persistence and degradability

<b>Component:</b>	<b>1 Decene, dimer, hydrogenated</b>	<b>CAS-No. 68649-11-6</b>
<b>Persistence and degradability</b>		
<b>Persistence</b>		
Result	:	No data available
<b>Biodegradability</b>		
Result	:	15 % (aerobic; activated sludge; Exposure Time: 28 d)(OECD Test Guideline 301D)Not readily biodegradable.

## 12.3 Bioaccumulative potential

<b>Component:</b>	<b>1 Decene, dimer, hydrogenated</b>	<b>CAS-No. 68649-11-6</b>
<b>Bioaccumulation</b>		
Result	:	No data available

## 12.4 Release to waters / Mobility in soil

<b>Component:</b>	<b>1 Decene, dimer, hydrogenated</b>	<b>CAS-No. 68649-11-6</b>
<b>Mobility</b>		
Result	:	No data available

## 12.5 Results of PBT and vPvB assessment

<b>Data for the Product</b>		
<b>Results of PBT and vPvB assessment</b>		
Result	:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
<b>Component:</b>	<b>1 Decene, dimer, hydrogenated</b>	<b>CAS-No. 68649-11-6</b>
<b>Results of PBT and vPvB assessment</b>		
Result	:	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent and very bioaccumulating (vPvB).

## 12.6 Endocrine disrupting properties

No data available

## 12.7 Other Adverse effects

Data for the Product	
Additional ecological information	
Result	: Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.
<b>Component:</b>	<b>1 Decene, dimer, hydrogenated</b> <span style="float: right;"><b>CAS-No. 68649-11-6</b></span>
Additional ecological information	
Result	: Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

## 13. Disposal Considerations

### 13.1. Waste treatment methods

Product	: Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services.
Contaminated packaging	: Empty contaminated packaging thoroughly. They can be recycled after thorough and proper cleaning. If recycling is not practicable, dispose of in compliance with local regulations.
European Waste Catalogue Number	: No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

## 14. Transport Information

Not Dangerous goods for ADR, RID, IMDG and IATA.

### 14.1. UN Number

Not applicable

### 14.2. UN Proper Shipping name

Not applicable

**14.3. Transport hazard class(es)**

Not applicable

**14.4. Packaging group**

Not applicable

**14.5. Environmental hazards**

Not applicable

**14.6 Special precautions for user**

Not applicable

**14.7 Maritime transport in bulk according to IMO instruments**

Not applicable for product as supplied.

**15. Regulatory Information**

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

**Data for the Product**

WGK (DE) : WGK 1 : slightly hazardous to water

WGK (DE) : WGK 1: slightly hazardous to water : 1

<b>Component:</b>	<b>1 Decene, dimer, hydrogenated</b>	<b>CAS-No. 68649-11-6</b>
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**Notification Status**

**1 -Decene, dimer, hydrogenated**

Regulatory List	Notification	Notification number
AICS	YES	
DSL	YES	
ENCS (JP)	YES	(6)-1109
EU NLP	YES	5002285
IECSC	YES	
ISHL (JP)	YES	(6)-1109
KECI (KR)	YES	KE-09501
NZIOC	YES	
ONT INV	YES	
PICCS (PH)	YES	
TCSI	YES	
TSCA	YES	
VN INVL	YES	

## 15.2. Chemical Safety Assessment

No data available

## 16. Other Information

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

H304	May be fatal if swallowed and enters airways
H332	Harmful if inhaled

### Abbreviations and Acronyms

<b>AU AIICL</b>	Australia. Industrial Chemicals Act (AIIC) List
<b>BCF</b>	bioconcentration factor
<b>BOD</b>	biochemical oxygen demand
<b>CAS</b>	Chemical Abstracts Service
<b>CLP</b>	Classification, Labelling and Packaging
<b>CMR</b>	carcinogenic, mutagenic or toxic to reproduction
<b>COD</b>	chemical oxygen demand
<b>DNEL</b>	derived no-effect level
<b>DSL</b>	Canada. Environmental Protection Act, Domestic Substances List
<b>EINECS</b>	European Inventory of Existing Commercial Chemical Substances
<b>ELINCS</b>	European List of Notified Chemical Substances
<b>ENCS (JP)</b>	Japan. Kashin-Hou Law List
<b>GHS</b>	Globally Harmonized System of Classification and Labelling of Chemicals
<b>IECSC</b>	China. Inventory of Existing Chemical Substances
<b>INSQ</b>	Mexico. National Inventory of Chemical Substances
<b>ISHL (JP)</b>	Japan. Inventory of Industrial Safety & Health
<b>KECI (KR)</b>	Korea. Existing Chemicals Inventory
<b>LC50</b>	median lethal concentration
<b>LOAEC</b>	lowest observed adverse effect concentration
<b>LOAEL</b>	lowest observed adverse effect level
<b>LOEL</b>	lowest observed effect level
<b>NDSL</b>	Canada. Environmental Protection Act. Non-Domestic Substances List
<b>NLP</b>	no-longer polymer
<b>NOAEC</b>	no observed adverse effect concentration
<b>NOAEL</b>	no observed adverse effect level
<b>NOEC</b>	no observed effect concentration
<b>NOEL</b>	no observed effect level
<b>NZIOC</b>	New Zealand. Inventory of Chemicals
<b>OECD</b>	Organisation for Economic Cooperation and Development
<b>OEL</b>	occupational exposure limit
<b>ONT INV</b>	Canada. Ontario Inventory List
<b>PBT</b>	persistent, bioaccumulative and toxic
<b>PHARM (JP)</b>	Japan. Pharmacopoeia Listing
<b>PICCS (PH)</b>	Philippines. Inventory of Chemicals and Chemical Substances

<b>PNEC</b>	predicted no-effect concentration
<b>REACH Auth. No.:</b>	REACH Authorisation Number
<b>REACH AuthAppC.No.</b>	REACH Authorisation Application Consultation Number
<b>STOT</b>	specific target organ toxicity
<b>SVHC</b>	substance of very high concern
<b>TCSI</b>	Taiwan. Existing Chemicals Inventory
<b>TH INV</b>	Thailand. Existing Chemicals Inventory from FDA
<b>TSCA</b>	US. Toxic Substances Control Act
<b>UVCB</b>	substance of unknown or variable composition, complex reaction products or biological materials
<b>VN INVL</b>	Vietnam. National Chemical Inventory
<b>vPvB</b>	very persistent and very bioaccumulative

### Further Information

Key literature references and sources for data	: Supplier information and data from the "Database of registered substances" of the European Chemicals Agency (ECHA) were used to create this safety data sheet.
Methods used for product classification	: The classification for human health, physical and chemical hazards and environmental hazards were derived from a combination of calculation methods and if available test data.
Hints for trainings	: The workers have to be trained regularly on the safe handling of the products based on the information provided in the Safety Data Sheet and the local conditions of the workplace. National regulations for the training of workers in the handling of hazardous materials must be adhered to.
Other information	: The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship.  The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.