

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## ARDEE <sup>TM/MC</sup> 100

000003000417

Version 6.0

Revision Date 29.09.2023

Print Date 29.09.2023

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

#### 1.1 Product identifier

Product name : ARDEE <sup>TM/MC</sup> 100

Product code : RDE100IBC, RDE100P20, RDE100DRM, RDE100DCT,  
RDE100, RDE100BLK

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

Use of the Sub- : Ardee oils are designed for use in lubricating pneumatic rock  
stance/Mixture drill equipment and other air-operated machinery.

#### 1.3 Details of the supplier of the safety data sheet

Manufacturer or supplier's details  
Petro-Canada Europe Lubricants Limited  
3rd Floor, 1 Ashley Road  
Altrincham Cheshire WA14 2DT  
United Kingdom

Telephone : +44 (0) 121 781 7264

E-mail address of person : EUSDS@hfsinclair.com  
responsible for the SDS

#### 1.4 Emergency telephone number

Emergency telephone num- : CHEMTREC: +1-703-741-5970;  
ber Poison Control Centre: Consult local telephone directory for  
emergency number(s).

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK  
SI 2019/720, and UK SI 2020/1567)**

Not a hazardous substance or mixture.

#### 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI  
2019/720, and UK SI 2020/1567)**

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) re-  
quired

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### 2.3 Other hazards

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.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Components

| Chemical name   | CAS-No.<br>EC-No.<br>Index-No.<br>Registration number | Classification   | Concentration<br>(% w/w) |
|---|---|--|--------------------------|
| Polysulfides, di-tert-Bu  | 68937-96-2<br>273-103-3                               | Aquatic Chronic 3;<br>H412<br>Skin Sens. 1B; H317  | 0.25 - 1                 |
| Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 alkyl (branched) | 931-384-6   | Acute Tox. 4; H302<br>Aquatic Chronic 2;<br>H411<br>Eye Dam. 1; H318<br>Skin Sens. 1B; H317<br><hr/> specific concentration limit<br>Eye Dam. 2<br>50.01 - 100 % | 0.1 - 0.25               |

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- If inhaled : Move to fresh air.  
Artificial respiration and/or oxygen may be necessary.  
Seek medical advice.
- In case of skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.  
Wash skin thoroughly with soap and water or use recognized skin cleanser.  
Wash clothing before reuse.  
Seek medical advice.
- In case of eye contact : Remove contact lenses.  
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Obtain medical attention.

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If swallowed : Rinse mouth with water.  
DO NOT induce vomiting unless directed to do so by a physician or poison control center.  
Never give anything by mouth to an unconscious person.  
Seek medical advice.

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

Risks : First aider needs to protect himself.

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

Treatment : Treat symptomatically.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

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

Unsuitable extinguishing media : No information available.

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

Specific hazards during fire-fighting : Cool closed containers exposed to fire with water spray.

Hazardous combustion products : Carbon oxides (CO, CO<sub>2</sub>), sulphur oxides (SO<sub>x</sub>), sulphur compounds (H<sub>2</sub>S), sulfides, aldehydes, alkyl mercaptans, smoke and irritating vapours as products of incomplete combustion.

### 5.3 Advice for firefighters

Further information : Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## SECTION 6: Accidental release measures

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

Personal precautions : Use personal protective equipment.  
Ensure adequate ventilation.  
Evacuate personnel to safe areas.  
Material can create slippery conditions.  
Mark the contaminated area with signs and prevent access to unauthorized personnel.  
Only qualified personnel equipped with suitable protective equipment may intervene.

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### 6.2 Environmental precautions

Environmental precautions : Do not allow uncontrolled discharge of product into the environment.

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

Methods for cleaning up : Prevent further leakage or spillage if safe to do so.  
Remove all sources of ignition.  
Soak up with inert absorbent material.  
Non-sparking tools should be used.  
Ensure adequate ventilation.  
Contact the proper local authorities.

### 6.4 Reference to other sections

For personal protection see section 8.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Use only with adequate ventilation.  
In case of insufficient ventilation, wear suitable respiratory equipment.  
Avoid contact with skin, eyes and clothing.  
Do not ingest.  
Keep away from heat and sources of ignition.  
Keep container closed when not in use.

Advice on protection against fire and explosion : None known.

Hygiene measures : Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash face, hands and any exposed skin thoroughly after handling.

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

Requirements for storage areas and containers : Store in original container. Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers. To maintain product quality, do not store in heat or direct sunlight.

### 7.3 Specific end use(s)

Specific use(s) : No data available

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

#### 8.2 Exposure controls

##### Engineering measures

No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

##### Personal protective equipment

- |                          |   |  |
|--------------------------|---|--|
| Eye/face protection      | : | Wear face-shield and protective suit for abnormal processing problems.   |
| Hand protection          | : |  |
| Material                 | : | neoprene, nitrile, polyvinyl alcohol (PVA), Viton®.  |
| Remarks                  | : | Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.  |
| Skin and body protection | : | Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.   |
| Respiratory protection   | : | Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. |
| Filter type              | : | organic vapour filter  |
| Protective measures      | : | Wash contaminated clothing before re-use.  |

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### SECTION 9: Physical and chemical properties

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

- |                |   |                          |
|----------------|---|--------------------------|
| Physical state | : | viscous liquid           |
| Colour         | : | dark brown               |
| Odour          | : | Mild petroleum oil like. |

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|  |   |   |
|--|---|---|
| Odour Threshold                                  | : | No data available   |
| Pour point                                       | : | -39 °C  |
| Boiling point/boiling range                      | : | No data available   |
| Flash point                                      | : | 241 °C<br>Method: Cleveland open cup                                      |
| Fire Point                                       | : | No data available   |
| Auto-Ignition Temperature                        | : | No data available   |
| Evaporation rate                                 | : | No data available   |
| Upper explosion limit / Upper flammability limit | : | No data available   |
| Lower explosion limit / Lower flammability limit | : | No data available   |
| Vapour pressure                                  | : | No data available   |
| Relative vapour density                          | : | No data available   |
| Relative density                                 | : | No data available   |
| Density  | : | 0.8680 kg/l (15 °C)   |
| Solubility(ies)<br>Water solubility              | : | insoluble   |
| Partition coefficient: n-octanol/water           | : | No data available   |
| Viscosity<br>Viscosity, kinematic                | : | 102.1 cSt (40 °C)<br>12.6 cSt (100 °C)                                    |
| Flammability                                     | : | Low fire hazard. This material must be heated before ignition will occur. |

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Explosive properties : Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

### 9.2 Other information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Hazardous polymerisation does not occur. Stable under normal conditions.

### 10.4 Conditions to avoid

Conditions to avoid : No data available

### 10.5 Incompatible materials

Materials to avoid : Reactive with oxidising agents, acids, reducing agents, halogens and halogen compounds.

### 10.6 Hazardous decomposition products

Hazardous decomposition products : May release CO<sub>x</sub>, SO<sub>x</sub>, PO<sub>x</sub>, H<sub>2</sub>S, hydrocarbons, alkyl mercaptans, sulfides, methacrylate monomers, asphyxiants, smoke and irritating vapours when heated to decomposition.

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Information on likely routes of exposure : Eye contact  
Ingestion  
Inhalation  
Skin contact

#### Acute toxicity

Not classified due to lack of data.

#### Product:

Acute oral toxicity : Remarks: No data available

Acute inhalation toxicity : Assessment: The substance or mixture has no acute inhalation toxicity  
Remarks: No data available

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Acute dermal toxicity : Assessment: The substance or mixture has no acute dermal toxicity  
Remarks: No data available

### **Skin corrosion/irritation**

Not classified due to lack of data.

#### **Product:**

Remarks : No data available

### **Serious eye damage/eye irritation**

Not classified due to lack of data.

#### **Product:**

Remarks : No data available

### **Respiratory or skin sensitisation**

Skin sensitisation: Not classified due to lack of data.  
Respiratory sensitisation: Not classified due to lack of data.

### **Germ cell mutagenicity**

Not classified due to lack of data.

### **Carcinogenicity**

Not classified due to lack of data.

### **Reproductive toxicity**

Not classified due to lack of data.

### **STOT - single exposure**

Not classified due to lack of data.

### **STOT - repeated exposure**

Not classified due to lack of data.

### **Aspiration toxicity**

Not classified due to lack of data.

### **Aspiration toxicity**

Not classified due to lack of data.

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## **SECTION 12: Ecological information**

### **12.1 Toxicity**

#### **Product:**

Toxicity to fish : Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available



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Toxicity to algae/aquatic plants : Remarks: No data available

Toxicity to microorganisms :  
Remarks: No data available

### Components:

#### **Polysulfides, di-tert-Bu:**

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 63 mg/l  
Exposure time: 2 Days

Toxicity to algae/aquatic plants : EC50 (algae): > 100 mg/l  
Exposure time: 3 Days

## 12.2 Persistence and degradability

### Product:

Biodegradability : Remarks: No data available

## 12.3 Bioaccumulative potential

No data available

## 12.4 Mobility in soil

No data available

## 12.5 Results of PBT and vPvB assessment

### Product:

Assessment : 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.

## 12.6 Other adverse effects

No data available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.  
Offer surplus and non-recyclable solutions to a licensed disposal company.  
Waste must be classified and labelled prior to recycling or disposal.  
Send to a licensed waste management company.  
Dispose of product residue in accordance with the instructions of the person responsible for waste disposal.

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### SECTION 14: Transport information

#### 14.1 UN number or ID number

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

#### 14.2 UN proper shipping name

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

#### 14.3 Transport hazard class(es)

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

#### 14.4 Packing group

IMDG : Not regulated as a dangerous good

IATA (Cargo) : Not regulated as a dangerous good

IATA (Passenger) : Not regulated as a dangerous good

#### 14.5 Environmental hazards

Not regulated as a dangerous good

#### 14.6 Special precautions for user

Not applicable

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

Remarks : ADR: Not Regulated  
ADN: Not Regulated  
RID: Not Regulated

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### SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation : Not applicable

The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain) : Not applicable

Regulation (EC) No 1005/2009 on substances that de- : Not applicable

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plete the ozone layer

UK REACH List of substances subject to authorisation : Not applicable  
(Annex XIV)

### The components of this product are reported in the following inventories:

DSL : On the inventory, or in compliance with the inventory

TSCA : All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

### 15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this mixture.

## SECTION 16: Other information

### Full text of H-Statements

H302 : Harmful if swallowed.  
H317 : May cause an allergic skin reaction.  
H318 : Causes serious eye damage.  
H411 : Toxic to aquatic life with long lasting effects.  
H412 : Harmful to aquatic life with long lasting effects.

### Full text of other abbreviations

Acute Tox. : Acute toxicity  
Aquatic Chronic : Long-term (chronic) aquatic hazard  
Eye Dam. : Serious eye damage/eye irritation  
Skin Sens. : Skin sensitisation

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECS - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - Interna-

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tional Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

For Copy of SDS : Internet: [lubricants.petro-canada.com/sds](http://lubricants.petro-canada.com/sds)  
Order Email for packed goods: [pcepackage@hfsinclair.com](mailto:pcepackage@hfsinclair.com)  
Order Email for bulk: [pceorders@hfsinclair.com](mailto:pceorders@hfsinclair.com)  
Telephone: +31 88313 0365 / +31 88313 0366  
For Product Safety Information: 1 905-491-0565

Prepared by : Product Safety: +1 905-491-0565

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