Air Force VPO LV

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law, and based on EU 2020/878.
SDS Reference Number: 22844
Issue date: 27/04/2023 Revision date: 17/07/2026 Supersedes version of: 26/06/2023 Version: 1.2

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

1.1. Product identifier

Product form	:	Mixture
Product name	:	Air Force VPO LV
Product code	:	7596-18
Type of product	:	Vacuum Pump Oil
Product group	:	Trade product

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

Relevant identified uses

Main use category	:	Industrial use,Professional use
Use of the substance/mixture	:	Lubricants and additives
Function or use category	:	Lubricants and additives

Title	Life cycle stage	Use descriptors
General industrial use of lubricants and greases in vehicles or machinery. Includes filling and draining of containers and enclosed machinery (including engines)	Professional, Consumer	SU3, PC17, PC24, PROC1, PROC8b, ERC4, ERC7

Full text of use descriptors: see section 16

1.3. Details of the supplier of the safety data sheet

Manufacturer
Morris Lubricants
Castle Foregate
SY1 2EL Shrewsbury, Shropshire
United Kingdom
T +44 (0) 1743 232200
sds@morris-lubricants.co.uk

1.4. Emergency telephone number

Emergency number	:	+44 (0) 1743 232200 08.45 - 17.00 GMT

Country/Area	Organisation	Emergency number
United Kingdom	NHS 111/NHS 24/NHS Direct.	111 0845 4647 or call a doctor

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Precautionary statements (CLP) : P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

EUH-statements : EUH210 - Safety data sheet available on request.

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	Reaction products of diphenylamine with nonene, branched (36878-20-3)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	Reaction products of diphenylamine with nonene, branched (36878-20-3)

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Distillates, hydrotreated heavy paraffinic substance with national workplace exposure limit(s) (BE, BG, CZ, DK, FI, GB, GR, HU, IE, LT, LV, NL, PL, PT, RO, SE, SK, IS, NO, CH)	CAS-No.: 64742-54-7 EC-No.: 265-157-1 EC Index-No.: 649-467-00-8 REACH-no: UK-20-0823962999-X-XXXX, 01-2119484627-25, UK-01-1759217276-5	>80	Not classified
Reaction products of diphenylamine with nonene, branched	CAS-No.: 36878-20-3 EC-No.: 701-385-4 REACH-no: 01-2119488911-28, UK-01-6387653799-2	≥ 0.1 – < 1	Repr. 2, H361f Aquatic Chronic 4, H413

Comments : A petroleum product. DMSO extract < 3 % weight (IP 346)

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If you feel unwell, seek medical advice.

First-aid measures after inhalation : Move the affected person away from the contaminated area and into the fresh air. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Take off contaminated clothing and wash it before reuse. Gently wash with plenty of soap and water.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Get medical advice/attention if you feel unwell. Do NOT induce vomiting.

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

Symptoms/effects after inhalation : None under normal use. Inhalation may cause irritation (cough, short breathing, difficulty in breathing).
Symptoms/effects after skin contact : Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact : May cause slight irritation.
Symptoms/effects after ingestion : Although not classified, the product contains mineral oil. If aspirated into the lungs e.g. through vomiting after ingestion, admit to hospital immediately.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry chemical, CO2, dry sand, or alcohol-resistant foam.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.
Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon monoxide. Carbon dioxide.

5.3. Advice for firefighters

Precautionary measures fire : Keep container closed when not in use.
Firefighting instructions : Prevent fire fighting water from entering the environment. Use water spray or fog for cooling exposed containers.
Protection during firefighting : Self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Clean up any spills as soon as possible, using an absorbent material to collect it.

For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Evacuate unnecessary personnel. Caution : this product can cause the floor to be very slippery.

6.2. Environmental precautions

Do not allow to enter drains or water courses. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for cleaning up : Clear up rapidly by scoop or vacuum. Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid with sand or inert absorbent and remove to safe place. Notify authorities if product enters sewers or public waters. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	:	Not expected to present a significant hazard under anticipated conditions of normal use.
Precautions for safe handling	:	Do not eat, drink or smoke when using this product.
Hygiene measures	:	Wear personal protective equipment. Wash contaminated clothing before reuse. 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

Technical measures	:	Store in a well-ventilated place. Keep container tightly closed.
Storage conditions	:	Do not expose to temperatures exceeding 50 °C/ 122 °F. Keep container closed when not in use. Store in a dry place.
Incompatible products	:	Oxidizing agent. Strong acids. Strong bases.
Storage area	:	Store in a well-ventilated place.
Special rules on packaging	:	Store in a closed container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National occupational exposure and biological limit values

Distillates, hydrotreated heavy paraffinic (64742-54-7)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA)	5 mg/m³
WEL STEL (OEL STEL)*	15 mg/m³
Regulatory reference	EU OEL

*STEL value is calculated based on the TWA limit

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal protection equipment

Personal protective equipment symbol(s):



Eye and face protection

Eye protection:
Chemical goggles or face shield

Skin protection

Skin and body protection:
Wear protective clothing

Hand protection:
Gloves

Respiratory protection

Respiratory protection:
No respiratory protection needed under normal use conditions

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	amber.
Appearance	:	Liquid.
Odour	:	mild.
Odour threshold	:	Not available
Melting point	:	Not available
Freezing point	:	Not available
Boiling point	:	> 320 °C
Flammability	:	Not flammable,Heating may cause a fire.
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	220 °C PMCC
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	Not available
Viscosity, kinematic @ 40°C	:	66.3 mm²/s
Solubility	:	Material nearly insoluble in water. Soluble in organic solvents.
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	Not available
Vapour pressure at 50°C	:	Not available
Density	:	Not available
Relative density	:	0.871
Relative vapour density at 20°C	:	Not available
Particle characteristics	:	Not applicable

9.2. Other information

Other safety characteristics

Additional information	:	The product is a complex mixture, the majority of which would not be classed as a VOC. However it cannot be discounted that trace or low levels of VOCs may be present.

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Extremely high or low temperatures. Moisture.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Distillates, hydrotreated heavy paraffinic (64742-54-7)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)

Reaction products of diphenylamine with nonene, branched (36878-20-3)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 2000 mg/kg

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)
Additional information : Repeated exposure may cause skin dryness or cracking.
Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity : Not classified
Additional information : This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP346 test
Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

Reaction products of diphenylamine with nonene, branched (36878-20-3)	
NOAEL (animal/male, F0/P)	40 mg/kg
NOAEL (animal/female, F0/P)	40 mg/kg
NOAEL (animal/male, F1)	122 mg/kg
NOAEL (animal/female, F1)	122 mg/kg

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Distillates, hydrotreated heavy paraffinic (64742-54-7)	
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	> 0.98 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)

Aspiration hazard : Not classified
Additional information : Although not classified, the product contains mineral oil. If aspirated into the lungs e.g. through vomiting after ingestion, admit to hospital immediately.

Air Force VPO LV	
Viscosity, kinematic @ 40°C	66.3 mm²/s

Reaction products of diphenylamine with nonene, branched (36878-20-3)	
Viscosity, kinematic @ 40°C	3827 mm²/s

11.2. Information on other hazards

Other information

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute) : Not classified

Hazardous to the aquatic environment, long–term (chronic) : Not classified

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

Reaction products of diphenylamine with nonene, branched (36878-20-3)	
LC50 - Fish [1]	> 0.0013 mg/l Oncorhynchus mykiss (Salmo gairdneri)
EC50 - Crustacea [1]	> 100 mg/l Daphnia magna

12.2. Persistence and degradability

Air Force VPO LV	
Persistence and degradability	Not established.

Distillates, hydrotreated heavy paraffinic (64742-54-7)	
Persistence and degradability	Not rapidly degradable

Reaction products of diphenylamine with nonene, branched (36878-20-3)	
Persistence and degradability	Not rapidly degradable

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	Reaction products of diphenylamine with nonene, branched (36878-20-3)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	Reaction products of diphenylamine with nonene, branched (36878-20-3)

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to a hazardous or special waste collection point.

European List of Waste (LoW, EC 2000/532) : 13 01 13* - other hydraulic oils
15 01 10* - packaging containing residues of or contaminated by dangerous substances

HP Code : HP15 - “Waste capable of exhibiting a hazardous property listed above not directly displayed by the original waste”.

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
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. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (2024/590)

Not listed on the Ozone Depletion list (Regulation EU 2024/590)
Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (EC 273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

National regulations

Global Inventories

Australian Inventory of Industrial Chemicals (AICIS)	All disclosed substances are listed
Canada DSL (Domestic Substances List)	All disclosed substances are listed
EC inventory	All disclosed substances are listed, except (Reaction products of diphenylamine with nonene, branched)
National Inventory of Chemical Substances (INSQ)	Listed (Distillates, hydrotreated heavy paraffinic)
Inventory of Existing Chemical Substances in China (IECSC)	All disclosed substances are listed
Japanese Existing and New Chemical Substances (CSCL)	Listed (Reaction products of diphenylamine with nonene, branched)
Japanese Existing Chemical Substances (ISHL)	Listed (Reaction products of diphenylamine with nonene, branched)
Korea Existing Chemicals Inventory (KECI)(MCEE, Korea)	All disclosed substances are listed
New Zealand Inventory of Chemicals (NZIoC)	All disclosed substances are listed
Philippines Inventory of Chemicals and Chemical Substances	All disclosed substances are listed
Universe of REACH registered substances	Listed (Distillates, hydrotreated heavy paraffinic)
Taiwan Chemical Substance Inventory (TCSI)	All disclosed substances are listed
Thailand Existing Chemicals Inventory (DIW)	Listed (Distillates, hydrotreated heavy paraffinic)
National Chemical Inventory	All disclosed substances are listed
The United States TSCA (Toxic Substances Control Act)	All disclosed substances are listed
Inventory TR EAEU 041/2017	All disclosed substances are listed

United Kingdom

British National Regulations : GB MCL (Mandatory Classification and Labelling).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
CAS-No.	Chemical Abstracts Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DNEL	Derived-No Effect Level
EC-No.	European Community number
ED	Endocrine disruptor
IARC	International Agency for Research on Cancer
LC50	Median lethal concentration
LD50	Median lethal dose
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
SDS	Safety Data Sheet
STP	Sewage treatment plant
VOC	Volatile Organic Compounds
WGK	Water Hazard Class
vPvB	Very Persistent and Very Bioaccumulative

Data sources : ECHA (European Chemicals Agency). REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. Supplier's safety documents.

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

Full text of H- and EUH-statements:	
Aquatic Chronic 4	Hazardous to the aquatic environment – Chronic Hazard, Category 4
Repr. 2	Reproductive toxicity, Category 2
H361f	Suspected of damaging fertility.
H413	May cause long lasting harmful effects to aquatic life.
EUH210	Safety data sheet available on request.

Full text of use descriptors	
ERC4	Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
ERC7	Use of functional fluid at industrial site
PC17	Hydraulic Fluids

Full text of use descriptors	
PC24	Lubricants, greases, release products
PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
SU3	Industrial uses: Uses of substances as such or in preparations at industrial sites

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

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.