

Material Safety Data Sheet

1 - Preparation and company identification

Identification of the preparation: 1402 PAKELO AVIATION TURBO OIL EVO 2

Preparation use: Turbine lubricant.

Company: PAKELO MOTOR OIL srl
Via Fontanelle - 37047 S. Bonifacio (Verona) -Italy-
(Tel.+39 045-6101643)

Emergency telephone: +39 045 6101643 (Mon - Fri 8 - 12 / 14 - 18)
Urgently seek medical assistance. Transport to hospital or medical centre with MSDS.
If ingestion occurs contact Poisons Information Centre.

Business references: mail: schede.sicurezza@pakelo.it

2 - Hazards identification

Main risks to health/environment: No particular risks in normal working conditions. We recommend, however, to keep normal personal hygiene and to avoid frequent and prolonged contact. Use according to good working practice avoiding to disperse the product in the environment.

Hazards: The substance is not regarded as hazardous according to the Directive 1999/45/EEC.

3 - Composition / Information on ingredients

Ingredients composition

67/548/CEE o 1999/45/CE

lubricant oils (petroleum), C20-50, neutral oil based, hydrotreated No. EU: 276-738-4 No. CAS: 72623-87-1	<65.38 %		
Poly alpha olefin No. EU: 500-183-1 No. CAS: 68037-01-4	<19 %		
Reaction between Benzeneamine, N-phenyl with nonene (branched) No. EU: 253-249-4	<0.35 %	R53	01-2119488911-28
1-(tert-decylthio)-2-propanol No. EU: 266-582-5	<0.11 %	N, Xi R43, R50/53	

No. 1272/2008/CE

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Reaction between Benzeneamine, N-phenyl with nonene (branched) No. EU: 253-249-4	<0.35 %	Aquatic Chronic 4H413	01-2119488911-28
1-(tert-decylthio)-2-propanol No. EU: 266-582-5	<0.11 %	Aquatic Acute 1 Aquatic Chronic 1 Skin Sens. 1H400 H410 H317	

Please refer to section 16 for more information about R phrases referred to.

Components information: The content of DMSO extract, determined with the IP 346/92 method is lower than 3% in weight.

Chemical composition: Synthetic and paraffinic solvent highly refined base stocks blended with additive packages.

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4 - First aid measures

First aid measures required to treat the symptoms.

Inhalation	In case of exposure to high concentration of vapours or fogs move the person from contaminated area to well ventilated place. Seek medical assistance if necessary. If you suspect inhalation, urgently go to hospital.
Contact with the skin	Remove contaminated clothes and wash with soap and plenty of water. If irritation persists, get medical attention.
Contact with the eyes	Immediately flush eyes with plenty of water for a few minutes while keeping eyelids open. Get medical attention.
Ingestion	Do not induce vomit to avoid aspiration through the respiratory tract. Get medical attention.

5 - Fire-fighting measures

Fire-fighting equipment	Extinguish flames with foam, dry chemicals, CO ₂ .
Inappropriate extinguishers	Do not use direct water jets. Use water jets just to cool down surfaces exposed to fire.
Specific dangers in case of exposition to the chemicals, its combustion products or gases	Avoid breathing combustion fumes because can form dangerous gases as carbon monoxide and unburnt hydrocarbon fumes. When exposed to heat the product can emit fumes.
Specific protective equipment for fire-fighting personnel	Wear protective overalls with self-breathing equipment.

6 - Accidental release measures

Person - related safety precautions	Wear gloves, protecting clothes and glasses. In case of indoors significant spill avoid to breathe vapours by ventilating the area or by wearing breath protecting equipment. Remove possible ignition sources.
Environmental precautions	Avoid to disperse the product in ground, into sewers and into surface waters. If necessary inform local authorities.
Decontamination procedures	In case of significant spillage, stem and transfer product to suitable containers. Spillage on ground: stem spilled product with soil or sand, clean up spilled product and dispose according to local regulations. Spillage in water: stem immediately the spillage. Mechanically remove spilled product from the surface.

7 - Handling and storage

Handling	Avoid direct contacts with the product. Avoid breathing aerosol or product mist guaranteeing a suitable ventilation in working areas. Do not smoke and avoid any contact with ignition sources. Keep containers closed when not used.
Storage	Keep the product in original containers. Storage in a fresh place, away from heating sources and direct sun exposition. Avoid to accumulate electrostatic charge. Keep closed and covered the containers to avoid infiltrations of rain. Maintain suitable ventilation of the work place.
Empty containers	The containers contain product residues. Dispose the containers in safe ecological way according to the local regulations.

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8 - Exposure controls / personal protection

Exposure borderline values

	TLV - TWA (1)		TLV - STEL (2)	
	ppm	mg/m ³	ppm	mg/m ³
lubricant oils (petroleum), C20-50, neutral oil based, hydrotreated		5		10
Poly alpha olefin		5		10

(1) Long exposure limits

(2) Short exposure limits

Exposure control	Avoid the formation of hazes or aerosol and use engineering controls, ventilation or localized aspiration if necessary.
Breathing equipment	Not necessary under normal working conditions. Keep oil hazes within the TLV-TWA limit of 5 mg/m ³ . (A.C.G.I.H. 2000). Use masks with filters for organic vapours in case of exposure superior to the fixed limits.
Hands and skin protection	Wear gloves and protective overalls; change immediately contaminated clothes and wash them thoroughly before use. We recommend to keep normal personal hygiene and of working clothes. Wear gloves only after having thoroughly washed your hands.
Eyes protection	Wear safety protective glasses where it is possible to be in contact with the product.

9 - Physical and chemical properties

Physical status- :	Liquid
Colour- :	Amber
Odour- :	Typical
pH :	Not applicable
Water Solubility- :	Insoluble
Density at 15°Ckg/l :	0.859
Kinematic Viscosity at 40°CcSt :	44,5
Flash Point (C.O.C.)°C :	>220

10 - Stability and reactivity

Reactivity and materials to avoid	Avoid contacts with strong acid, strong bases and oxidation agents. Avoid extreme heat and high energy sources of ignition.
Stability	Stable product in normal applications.

11 - Toxicological information

Chronic toxicity	Exposure to oil vapour that exceeds Professional Inhalation Limits can cause respiratory system irritations.
Skin contact	LD50 skin (rabbit) > 2000 mg/kg (estimated). Frequent and continuous contacts could degrease skin and cause dermatitis.
Eyes contact	It can cause light irritation.
Oral toxicity	LD50 (rats): > 2000 mg/kg (estimated). The product if ingested can irritate the digestive apparatus and induce vomiting, cause nausea and diarrhea.
Inhalation	Long term exposure to the product mist can cause irritation to the respiratory system.

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12 - Ecological information

Mobility	The product keeps afloat.
Degradability	Not determined.
Accumulation	Not determined.
Ecotoxicity	In compliance with EEC Regulations the product is not regarded as hazardous to the environment.

13 - Disposal considerations

General information	Do not dispel the environment. Comply with the current laws.
Disposal	Avoid to disperse the product on ground, into sewers and surface waters. Discharge the exhausted products and the containers through the authorized industries in compliance with the state and local regulations for disposal of this type of waste.

14 - Transport information

Not hazardous for the transport.

Transport name	PAKELO AVIATION TURBO OIL EVO 2
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15 - Regulatory information

Reference Laws	This Safety Data Sheet complies with the Regulation 453/2010/EEC. Regulation (CE) 1272/2008 (GHS/CLP), D.E. 1999/45/CE, 2001/60/CE and related regulations on "Classification, labelling and packaging of substances and mixtures". Refer also to local laws.
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16 - Other information

Relevant R and H phrases	R 43 May cause sensitization by skin contact. R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R 53 May cause long-term adverse effects in the aquatic environment. H317 May cause an allergic skin reaction. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H413 May cause long lasting harmful effects to aquatic life.
Warning	The information presented in this Material Safety Sheet is based on data believed to be accurate as of the date this Material Safety Data Sheet was prepared. The purpose of this data sheet is to inform and assume a correct technological use of the product. PAKELO MOTOR OIL does not take any responsibility resulting from any damage or injury resulting from abnormal use.