FNA S.p.A. - Via Einaudi, 6 - 10070 Robassomero (TO) - Italy

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2015/830 - Europe

SAFETY DATA SHEET **ROTENERGY PLUS ISO 46**

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

1.1 Product identifier	
Product name	: ROTENERGY PLUS ISO 46
Product code	: 60000007A; 60000009A; 600000012A; 600000018A
Product description	: Lubricating Oil.
Product type	: Liquid.
Other means of identification	: Not available.

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

Identified uses	
Industrial applications: Synthetic Compressor Lubricant	
Uses advised against Reason	
None known.	

1.3 Details of the supplier of the safety data sheet

FNA S.p.A. Via Einaudi, 6 10070 Robassomero Torino - Italy +39 011 9233000

e-mail address of person	: Anna Maria Chilò
responsible for this SDS	chilo@fnacompressors.com
	Telephone no.: +39 011 9233114

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number Supplier	: +31(0) 30274 8888 (24 hours per week and 7 days a week)
Telephone number	 In case of emergency: chilo@fnacompressors.com Telephone no.:+39 011 9233114 (08:00-12:00/14:00-18:00 - Monday to Friday)
	Medical service provided H24 Centro Antiveleni Milano: Telephone no.: +39 02 66101029 (CAV Ospedale Niguarda Ca`Granda-Milano) Information for other countries, ECHA website (European Chemicals Agency): https://echa.europa.eu/support/helpdesks
	Technical support Supplier +39 011 9233000 (08:00-12:00/14:00-18:00 - Monday to Friday)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

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

Not classified.

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended. Classification according to Directive 1999/45/EC [DPD]

SECTION 2: Hazards identification

The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : Not classified.

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements		
Signal word	1	No signal word.
Hazard statements	1	No known significant effects or critical hazards.
Precautionary statements		
Prevention	1	Not applicable.
Response	1	Not applicable.
Storage	1	Not applicable.
Disposal	:	Not applicable.
Supplemental label elements	1	Safety data sheet available on request.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	:	Not applicable.
Special packaging requirem	en	t <u>s</u>
Containers to be fitted with child-resistant fastenings	:	Not applicable.
Tactile warning of danger	:	Not applicable.

2.3 Other hazards

Other hazards which do : None known. not result in classification

SECTION 3: Composition/information on ingredients

3.2 Mixtures

: Mixture

			<u>Class</u>	ification	
Product/ingredient name	Identifiers	%	67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	Туре
Paraffin oils (petroleum), catalytic dewaxed light	EC: 265-176-5 CAS: 64742-71-8 Index: 649-478-00-8	≥10 - ≤25	Xn; R65	Asp. Tox. 1, H304	[1]
			See Section 16 for the full text of the R-phrases declared above.	See Section 16 for the full text of the H statements declared above.	

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Туре

SECTION 3: Composition/information on ingredients

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid m	neasures
Eye contact	 Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	 Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effec	<u>ts</u>
Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs/symp	<u>toms</u>
Eye contact	: No specific data.
Inhalation	: No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

: No specific data.

: No specific data.

Notes to physician	 In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the : In a fire or if heated, a pressure increase will occur and the container may burst. substance or mixture

Skin contact

Ingestion

SECTION 5: Firefighting measures

Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides
5.3 Advice for firefighters	
Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, pro	tective equipment and emergency procedures
For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
For emergency responders	: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
6.2 Environmental precautions	: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
6.3 Methods and material for	containment and cleaning up
Small spill	: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.
6.4 Reference to other sections	: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures	: Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

SECTION 7: Handling and storage

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations

Not available.Not available.

Industrial sector specific solutions

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Recommended monitoring procedures If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls		Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Individual protection measu	res	
Hygiene measures		Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection		Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Skin protection		

SECTION 8: Exposure controls/personal protection

Hand protection	: 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.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<u>Appearance</u>	
Physical state	: Liquid.
Colour	: Red.
Odour	: Characteristic.
Odour threshold	: Not available.
рН	: Not available.
Melting point/freezing point	: Not available.
Pour point	: -35°C
Initial boiling point and boiling range	: 343 to 427°C
Flash point	: Open cup: 249°C [Cleveland.]
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Upper/lower flammability or explosive limits	: Not available.
Vapour pressure	: Not available.
Vapour density	: Not available.
Relative density	: 0.88
Solubility(ies)	: Insoluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/ water	: Not available.
Auto-ignition temperature	: 288°C
Decomposition temperature	: Not available.
Viscosity	: Kinematic (40°C): 0.46 cm ² /s
Explosive properties	: Not available.
Oxidising properties	: Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: The product is stable.
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: No specific data.
10.5 Incompatible materials	: No specific data.
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 toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Paraffin oils (petroleum), catalytic dewaxed light	LC50 Inhalation Dusts and mists	Rat - Female	9.5 mg/l	4 hours
	LD50 Dermal LD50 Oral	Rabbit Rat	>2000 mg/kg >5000 mg/kg	-
Conclusion/Summary	Not available.			
Acute toxicity estimates				
Not available.				
Irritation/Corrosion				
Conclusion/Summary	Not available.			
Sensitisation				
Conclusion/Summary	Not available.			
Mutagenicity				
Conclusion/Summary	Not available.			
Carcinogenicity				
Conclusion/Summary	: Note L: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 'Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulphoxide extraction refractive index method', Institute of Petroleum, London. This note applies only to certain complex oilderived substances in Part 3.			
Reproductive toxicity				
Conclusion/Summary	Not available.			
Teratogenicity				
Conclusion/Summary	Not available.			
Specific target organ toxicity (single exposure)				
Not available.				
Specific target organ toxicity	(repeated exposure)			

Not available.

Aspiration hazard

Product/ingredient name	Result
Paraffin oils (petroleum), catalytic dewaxed light	ASPIRATION HAZARD - Category 1

SECTION 11: Toxicological information

Information on likely routes of exposure	:	Routes of entry anticipated: Oral, Dermal, Inhalation.
Potential acute health effects		
Eye contact	1	No known significant effects or critical hazards.
Inhalation	1	No known significant effects or critical hazards.
Skin contact	1	No known significant effects or critical hazards.
Ingestion	4	No known significant effects or critical hazards.
Symptoms related to the physical	sic	al, chemical and toxicological characteristics
Eye contact	1	No specific data.
Inhalation	:	No specific data.
Skin contact	1	No specific data.
Ingestion	4	No specific data.
Delayed and immediate effect	ts :	as well as chronic effects from short and long-term exposure
Potential immediate effects	1	Not available.
Potential delayed effects	1	Not available.
<u>Long term exposure</u>		
Potential immediate effects	1	Not available.
Potential delayed effects	4	Not available.
Potential chronic health effe	ct	<u>8</u>
Not available.		
Conclusion/Summary	:	Not available.
General	1	No known significant effects or critical hazards.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	1	No known significant effects or critical hazards.

- **Teratogenicity** : No known significant effects or critical hazards.
- **Developmental effects** : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Other information

: Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Paraffin oils (petroleum), catalytic dewaxed light	Acute EC50 >100 mg/l	Algae	72 hours
	Acute EC50 >100 mg/l Acute LC50 >100 mg/l	Daphnia Fish	48 hours 96 hours
Conclusion/Summary	: Not available.		

12.2 Persistence and degradability

Conclusion/Summary	: Not available.		
Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Paraffin oils (petroleum), catalytic dewaxed light	-	-	Inherent
Date of issue/Date of revision	: 01/03/2017		Version : 3.02 8/11

SECTION 12: Ecological information

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Paraffin oils (petroleum), catalytic dewaxed light	2 to 6	-	high

12.4 Mobility in soil Soil/water partition coefficient (Koc)	: Not available.
Mobility	: Not available.
12.5 Results of PBT and	vPvB assessment
PBT	: Not applicable.
vPvB	: Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product	
Methods of disposal	: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
Hazardous waste	 Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.
Packaging	
Methods of disposal	 The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Special precautions	 This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	ΙΑΤΑ
14.1 UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.

14.6 Special precautions for user
14.6 Special precautions for user
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
14.7 Transport in bulk according to Code
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

SECTION 15: Regulatory information

15.1 Safety, health and enviro	nmental regulations/legislation specific for the substance or mixture
EU Regulation (EC) No. 1907	//2006 (REACH)
Annex XIV - List of substan	ces subject to authorisation
Annex XIV	
None of the components are	e listed.
Substances of very high o	<u>concern</u>
None of the components are	e listed.
Annex XVII - Restrictions	: Not applicable.
on the manufacture,	
placing on the market and use of certain dangerous	
substances, mixtures and	
articles	
Other EU regulations	
Europe inventory	: At least one component is not listed in EINECS but all such components are listed in
	ELINCS.
	Please contact your supplier for information on the inventory status of this material.
Priority List Chemicals (793/93/EEC)	: Not determined
Seveso Directive	
This product is not controlled	under the Seveso Directive.
International regulations	
Chemical Weapon Convention	on List Schedules I, II & III Chemicals
Not listed.	
Montreal Protocol (Annexes	A B C E)
Not listed.	
Stockholm Convention on P	ersistent Organic Pollutants
Not listed.	
Rotterdam Convention on Pr	rior Informed Consent (PIC)
Not listed.	
UNECE Aarhus Protocol on	POPs and Heavy Metals
Not listed.	
International lists	
National inventory	
Australia	: All components are listed or exempted.
Canada	: At least one component is not listed in DSL but all such components are listed in NDSL.
China	: All components are listed or exempted.
Japan	: Japan inventory (ENCS): At least one component is not listed. Japan inventory (ISHL): Not determined.
Malaysia	: Not determined.
New Zealand	: All components are listed or exempted.
Philippines	: All components are listed or exempted.
Republic of Korea	: At least one component is not listed.
Taiwan	: Not determined.
United States	: All components are listed or exempted.
15.2 Chemical safety assessment	: Not yet complete.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms	:	CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement
		PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification Not classified.			Justification	
Full text of classifications [CLP/GHS]	:	Asp. Tox. 1, H304	ASPIRATION HAZARD - Category 1	
Full text of abbreviated R phrases	-	R65- Harmful: may cause lung damage if swallowed.		
Full text of classifications [DSD/DPD]	:	Xn - Harmful		
Date of issue/ Date of revision	-	01/03/2017		
Version	:	3.02		

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.