

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

1.1. Product identifier

Trade name or designation of the mixture	RSC ROV Fluid ISO 22
Registration number	-
Synonyms	None.
Part No.	ELHF22
Issue date	17-December-2018
Version number	01

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

Identified uses	Hydraulic fluid
Uses advised against	None known.

1.3. Details of the supplier of the safety data sheet

Supplier

Company name	RSC Bio Solutions	
Address	600 Radiator Road	
Division		
Telephone	Phone:	704-684-6100
	Fax:	704-257-8996
e-mail	Not available.	
Contact person	Not available.	

1.4. Emergency telephone number	EMERGENCY PH NO:	1-800-661-3558
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

This preparation does not meet the criteria for classification according to Directive 1999/45/EC as amended.

Classification according to Regulation (EC) No 1272/2008 as amended

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

Hazard summary

Physical hazards	Not classified for physical hazards.
Health hazards	Not classified for health hazards. However, occupational exposure to the mixture or substance(s) may cause adverse health effects.
Environmental hazards	Not classified for hazards to the environment.
Specific hazards	None known.
Main symptoms	Exposure may cause temporary irritation, redness, or discomfort.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains:	Synthetic Biodegradable Base Oil
Hazard pictograms	None.
Signal word	None.
Hazard statements	The mixture does not meet the criteria for classification.

Precautionary statements

Prevention	Observe good industrial hygiene practices.
Response	Wash hands after handling.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.

Supplemental label information 97,06 % of the mixture consists of component(s) of unknown acute oral toxicity. 97,06 % of the mixture consists of component(s) of unknown acute dermal toxicity. 97,06 % of the mixture consists of component(s) of unknown acute inhalation toxicity. 97,06 % of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

NOTE: This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling. The container label may not include the OSHA label elements listed in this document. Always carefully review the entire SDS and the product label prior to use in the workplace.

2.3. Other hazards Not a PBT or vPvB substance or mixture.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Synthetic Biodegradable Base Oil	30 - < 40	178603-64-0	-	-	
Classification:	DSD: -				
	CLP: Asp. Tox. 1;H304				
Distillates (petroleum), hydrotreated heavy paraffinic	< 1	64742-54-7 265-157-1	-	649-467-00-8	
Classification:	DSD: Carc. Cat. 2;R45				L
	CLP: Carc. 1B;H350				L
Other components below reportable levels	60 - < 70				

List of abbreviations and symbols that may be used above

DSD: Directive 67/548/EEC.

CLP: Regulation No. 1272/2008.

#: This substance has been assigned Union workplace exposure limit(s).

M: M-factor

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments The full text for all R- and H-phrases is displayed in section 16.

SECTION 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed Exposure may cause temporary irritation, redness, or discomfort.

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

SECTION 5: Firefighting measures

General fire hazards No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures

Move containers from fire area if you can do so without risk.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.

For emergency responders

Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

The product is immiscible with water and will spread on the water surface.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

6.4. Reference to other sections**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Avoid prolonged exposure. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits****Belgium. Exposure Limit Values.**

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Components	Type	Value
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	TWA	5 mg/m3

Czech Republic. OELs. Government Decree 361

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	Ceiling	10 mg/m3	Aerosol
	TWA	5 mg/m3	Aerosol

Denmark. Exposure Limit Values

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	TLV	1 mg/m3	Mist.

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	TWA	5 mg/m3	Respirable fraction.
Synthetic Biodegradable Base Oil (CAS 178603-64-0)	TWA	5 mg/m3	Respirable fraction.

Greece. OELs (Decree No. 90/1999, as amended)

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	TWA	5 mg/m3	Mist.

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	Ceiling	5 mg/m3	Mist.

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	TWA	1 mg/m3	Mist.

Ireland. Occupational Exposure Limits

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	TWA	5 mg/m3	Inhalable fraction.

Italy. Occupational Exposure Limits

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	TWA	5 mg/m3	Inhalable fraction.
Synthetic Biodegradable Base Oil (CAS 178603-64-0)	TWA	5 mg/m3	Inhalable fraction.

Latvia. OELs. Occupational exposure limit values of chemical substances in work environment

Components	Type	Value
Synthetic Biodegradable Base Oil (CAS 178603-64-0)	TWA	5 mg/m3

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	STEL	3 mg/m3	Fume and mist.
	TWA	1 mg/m3	Fume and mist.

Netherlands. OELs (binding)

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	TWA	5 mg/m3	Mist.

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	TLV	1 mg/m3	Mist.

Ordinance of the Minister of Labour and Social Policy on 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment, Journal of Laws 2014, item 817

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	TWA	5 mg/m ³	Inhalable fraction.
Synthetic Biodegradable Base Oil (CAS 178603-64-0)	TWA	5 mg/m ³	Inhalable fraction.

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	STEL	10 mg/m ³	Aerosol
	TWA	5 mg/m ³	Aerosol

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	STEL	10 mg/m ³	
	TWA	5 mg/m ³	

Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	STEL	3 mg/m ³	Fume and mist.
		15 ppm	Fume and mist.
	TWA	1 mg/m ³	Fume and mist.
		5 ppm	Fume and mist.
Synthetic Biodegradable Base Oil (CAS 178603-64-0)	STEL	3 mg/m ³	Fume and mist.
		15 ppm	Fume and mist.
	TWA	1 mg/m ³	Fume and mist.
		5 ppm	Fume and mist.

Spain. Occupational Exposure Limits

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	STEL	10 mg/m ³	Mist.
	TWA	5 mg/m ³	Mist.

Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	STEL	3 mg/m ³	Mist.
	TWA	1 mg/m ³	Mist.

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	TWA	5 mg/m ³	Inhalable dust.
Synthetic Biodegradable Base Oil (CAS 178603-64-0)	TWA	5 mg/m ³	Inhalable dust.

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs) Not available.

Predicted no effect concentrations (PNECs) Not available.

8.2. Exposure controls

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General information Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

- **Hand protection** Wear appropriate chemical resistant gloves.

- **Other** Wear suitable protective clothing.

Respiratory protection Chemical respirator with organic vapour cartridge and full facepiece. Dust Mask.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Hygiene measures Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental exposure controls Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance Clear.

Physical state Liquid.

Form Liquid.

Colour Red

Odour Mild

Odour threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point 180,0 °C (356,0 °F) Cleveland open cup

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Vapour pressure Not available.

Vapour density Not available.

Relative density Not available.

Solubility(ies)

Solubility (water) Insoluble

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity 22 cSt

Viscosity temperature 40 °C (104 °F) (Typical)

Explosive properties Not explosive.

Oxidising properties	Not oxidising.
9.2. Other information	
Density	0,88 g/cm ³
Percent volatile	0 %
Pour point	-42,22 °C (-44 °F)
Specific gravity	0,88
VOC	None

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials.
10.5. Incompatible materials	Strong oxidising agents.
10.6. Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

Symptoms Exposure may cause temporary irritation, redness, or discomfort.

11.1. Information on toxicological effects

Acute toxicity	Not known.
Skin corrosion/irritation	Due to partial or complete lack of data the classification is not possible.
Serious eye damage/eye irritation	Due to partial or complete lack of data the classification is not possible.
Respiratory sensitisation	Due to partial or complete lack of data the classification is not possible.
Skin sensitisation	Due to partial or complete lack of data the classification is not possible.
Germ cell mutagenicity	Due to partial or complete lack of data the classification is not possible.
Carcinogenicity	Based on available data, the classification criteria are not met.
Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)	
Not listed.	
Reproductive toxicity	Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity - single exposure	Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity - repeated exposure	Due to partial or complete lack of data the classification is not possible.
Aspiration hazard	Based on available data, the classification criteria are not met.
Mixture versus substance information	No information available.
Other information	This product has no known adverse effect on human health.

SECTION 12: Ecological information

12.1. Toxicity Based on available data, the classification criteria are not met for hazardous to the aquatic environment.

Product	Species	Test Results
RSC ROV Fluid ISO 22		
Aquatic		
Algae	EC50	Algae > 100 ppm

Product		Species	Test Results
Crustacea	EC50	Daphnia magna	> 100 ppm
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>)	> 10000 ppm

12.2. Persistence and degradability

Biodegradability

Percent Degradation (Aerobic Biodegradation)

RSC ROV Fluid ISO 22

> 60 % ASTM D7373

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow) Not available.

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB assessment Not a PBT or vPvB substance or mixture. Not available.

12.6. Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

EU waste code The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Disposal methods/information Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Special precautions Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. - 14.6.: Not regulated as dangerous goods.

RID

14.1. - 14.6.: Not regulated as dangerous goods.

ADN

14.1. - 14.6.: Not regulated as dangerous goods.

IATA

14.1. - 14.6.: Not regulated as dangerous goods.

IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Not listed.

Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

National regulations

Follow national regulation on the protection of workers from the risks of exposure to carcinogens and mutagens at work, in accordance with Directive 2004/37/EC.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

Not available.

References

Not available.

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any statements or R-phrases and H-statements under Sections 2 to 15

R45 May cause cancer.
H304 May be fatal if swallowed and enters airways.
H350 May cause cancer.

Revision information

None.

Training information

Follow training instructions when handling this material.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.