



## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

SDS # : 30430

### CIRKAN RO 150

Date of the previous version: 2018-06-14

Revision Date: 2020-05-25

Version 3.02

#### Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

##### 1.1. Product identifier

<b>Product name</b>	<b>CIRKAN RO 150</b>
<b>Number</b>	13L
<b>Substance/mixture</b>	Mixture

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

<b>Identified uses</b>	Circulating oil.
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##### 1.3. Details of the supplier of the safety data sheet

<b>Supplier</b>	<b>TOTAL LUBRIFIANTS</b> 562 Avenue du Parc de L'île 92029 Nanterre Cedex FRANCE Tél: +33 (0)1 41 35 40 00 Fax: +33 (0)1 41 35 84 71***
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##### For further information, please contact:

<b>Contact Point</b>	<b>HSE***</b>
<b>E-mail Address</b>	<b>rm.msds-lubs@total.com***</b>

##### 1.4. Emergency telephone number

Emergency telephone: +44 1235 239670  
 France - ORFILA (INRS) Tél : +33 (0)1 45 42 59 59  
 In France - Poison centers:  
 ANGERS : 02 41 48 21 21  
 BORDEAUX : 05 56 96 40 80  
 LILLE : 08 00 59 59 59  
 LYON : 04 72 11 69 11  
 MARSEILLE : 04 91 75 25 25  
 NANCY : 03 83 22 50 50  
 PARIS : 01 40 05 48 48  
 STRASBOURG : 03 88 37 37 37  
 TOULOUSE : 05 61 77 74 47

#### Section 2: HAZARDS IDENTIFICATION

##### 2.1. Classification of the substance or mixture

**REGULATION (EC) No 1272/2008**    \*\*\*

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*For the full text of the H-Statements mentioned in this Section, see Section 2.2.\*\*\**

**Classification**

The product is not classified as dangerous according to Regulation (EC) No. 1272/2008\*\*\*

2.2. Label elements

**Labelled according to** REGULATION (EC) No 1272/2008\*\*\*

**Signal word**

None\*\*\*

**Hazard Statements \*\*\***

None\*\*\*

**Precautionary Statements**

None\*\*\*

2.3. Other hazards

**Physical-Chemical Properties** Contaminated surfaces will be extremely slippery.\*\*\*

**Environmental properties** The product may form an oil film on the water surface that may stop the oxygen exchange.\*\*\*

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS
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3.2. Mixture\*\*\***Chemical nature**

Mineral oil of petroleum origin.\*\*\*

**Hazardous ingredients**

Do not contain hazardous substance nor substance with european workplace exposure limits in concentration above regulatory thresholds\*\*\*

**Additional information**

Product containing mineral oil with less than 3% DMSO extract as measured by IP 346.\*\*\*

**For the full text of the H-Statements mentioned in this Section, see Section 16.**

Section 4: FIRST AID MEASURES
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4.1. Description of first-aid measures**General advice**

IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.\*\*\*

**Eye contact**

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing.\*\*\*

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<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. High pressure jets may cause skin damage. Take victim immediately to hospital.***
<b>Inhalation</b>	Remove casualty to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration.***
<b>Ingestion</b>	Clean mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.***
<b>Protection of First-aiders</b>	First aider needs to protect himself. See Section 8 for more detail. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.***

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

<b>Eye contact</b>	Based on available data, the classification criteria are not met.***
<b>Skin contact</b>	Based on available data, the classification criteria are not met. High pressure injection of the products under the skin may have very serious consequences even though no symptom or injury may be apparent.***
<b>Inhalation</b>	Based on available data, the classification criteria are not met. Inhalation of vapors in high concentration may cause irritation of respiratory system.***
<b>Ingestion</b>	Based on available data, the classification criteria are not met. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.***

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

**Notes to physician** Treat symptomatically.\*\*\*

Section 5: FIRE-FIGHTING MEASURES
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5.1. Extinguishing media

<b>Suitable Extinguishing Media</b>	Carbon dioxide (CO <sub>2</sub> ). ABC powder. Foam. Water spray or fog.***
<b>Unsuitable Extinguishing Media</b>	Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

<b>Special Hazard</b>	Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration. Nitrogen oxides (NO <sub>x</sub> ).***
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5.3. Advice for fire-fighters

**Special protective equipment for** Wear self-contained breathing apparatus and protective suit.\*\*\*

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**fire-fighters****Other information**

Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Section 6: ACCIDENTAL RELEASE MEASURES
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6.1. Personal precautions, protective equipment and emergency procedures**General Information**

Do not touch or walk through spilled material. Contaminated surfaces will be extremely slippery. Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.\*\*\*

6.2. Environmental precautions**General Information**

Do not allow material to contaminate ground water system. Prevent entry into waterways, sewers, basements or confined areas. Local authorities should be advised if significant spillages cannot be contained.\*\*\*

6.3. Methods and material for containment and cleaning up**Methods for containment**

Dike to collect large liquid spills. If necessary dike the product with dry earth, sand or similar non-combustible materials.\*\*\*

**Methods for cleaning up**

Dispose of contents/container in accordance with local regulation. In case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations.\*\*\*

6.4. Reference to other sections

**Personal Protective Equipment** See Section 8 for more detail.

**Waste treatment** See section 13.

Section 7: HANDLING AND STORAGE
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7.1. Precautions for safe handling**Advice on safe handling**

For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing.\*\*\*

**Prevention of fire and explosion**

Take precautionary measures against static discharges.\*\*\*

**Hygiene measures**

Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Regular cleaning of equipment, work area and clothing is recommended. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.\*\*\*

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

#### Technical measures/Storage conditions

Keep away from food, drink and animal feedingstuffs. Keep in a banded area. Keep container tightly closed. Keep preferably in the original container. Otherwise reproduce all indication of the regulation label on the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Store at room temperature. Protect from moisture.\*\*\*

#### Materials to Avoid

Strong oxidizing agents.\*\*\*

### 7.3. Specific end uses

#### Specific use(s)

Please refer to Technical Data Sheet for further information.\*\*\*

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure limits

Mineral oil mist:  
USA: OSHA (PEL) TWA 5 mg/m<sup>3</sup>, NIOSH (REL) TWA 5 mg/m<sup>3</sup>, STEL 10 mg/m<sup>3</sup>, ACGIH (TLV) TWA 5 mg/m<sup>3</sup> (highly refined)

#### Legend

See section 16

### 8.2. Exposure controls

#### Occupational Exposure Controls

##### Engineering Measures

Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.\*\*\*

#### Personal Protective Equipment

##### General Information

Protective engineering solutions should be implemented and in use before personal protective equipment is considered. The personal protective equipment (PPE) recommendations apply to the product ITSELF. In case of mixtures or formulations, it is suggested that you contact the relevant PPE suppliers.\*\*\*

##### Respiratory protection

None under normal use conditions. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Respirator with combination filter for vapour/particulate (EN 14387). Type A/P1. Warning ! filters have a limited use duration. If exposure limits are exceeded a self-contained breathing apparatus has to be worn. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.\*\*\*

##### Eye Protection

If splashes are likely to occur, wear: Safety glasses with side-shields. EN 166.\*\*\*

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**Skin and body protection**

Wear suitable protective clothing. Protective shoes or boots. Long sleeved clothing. Type 4/6.\*\*\*

**Hand Protection**

Hydrocarbon-proof gloves. Fluorinated rubber. Nitrile rubber. In case of prolonged contact with the product, it is recommended to wear gloves complying with EN 420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the appropriateness of its use and its replacement frequency. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.\*\*\*

**Environmental exposure controls****General Information**

The product should not be allowed to enter drains, water courses or the soil.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

## 9.1. Information on basic physical and chemical properties

Appearance		limpid***	
Color		No information available***	
Physical State @20°C		liquid***	
Odor		Characteristic***	
Odor Threshold		No information available***	
<b>Property</b>	<b>Values</b>	<b>Remarks</b>	<b>Method</b>
pH		Not applicable***	
Melting point/range		Not applicable***	
Boiling point/boiling range		No information available***	
Flash point ***	>*** 200*** °C*** >*** 392*** °F***	***	ISO 2592*** ISO 2592***
Evaporation rate		No information available***	
Flammability Limits in Air		No information available	
upper ***		No information available***	***
Lower ***		No information available***	***
Vapor Pressure		No information available***	
Vapor density		No information available***	
Relative density ***	*** 0.885*** -*** 0.900***	@ 15 °C ***	***
Density	885*** - *** 900*** kg/m <sup>3</sup> ***	@ 15 °C***	
Water solubility		Insoluble***	
Solubility in other solvents		No information available***	
logPow		No information available***	
Autoignition temperature		No information available***	
Decomposition temperature		No information available	

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<b>Viscosity, kinematic</b> ***	*** 144*** -*** 165*** @ 40 °C ***	ISO 3104 ***
<b>Explosive properties</b>	mm <sup>2</sup> /s***	
<b>Oxidizing Properties</b>	Not explosive***	
<b>Possibility of hazardous reactions</b>	Not applicable***	
	None under normal processing***	

9.2. Other information**Freezing Point**

No information available

## Section 10: STABILITY AND REACTIVITY

10.1. Reactivity**General Information**

None under normal processing.\*\*\*

10.2. Chemical stability**Stability**

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions**Hazardous Reactions**

No dangerous reaction known under conditions of normal use.\*\*\*

10.4. Conditions to avoid**Conditions to avoid**

Keep away from open flames, hot surfaces and sources of ignition. Keep away from heat and sparks.\*\*\*

10.5. Incompatible materials**Materials to Avoid**

Strong oxidizing agents.\*\*\*

10.6. Hazardous Decomposition Products**Hazardous Decomposition Products**Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. Nitrogen oxides (NO<sub>x</sub>).\*\*\*

## Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects**Acute toxicity Local effects Product Information****Skin contact**

. Based on available data, the classification criteria are not met. High pressure injection of the products under the skin may have very serious consequences even though no symptom or injury may be apparent.\*\*\*

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<b>Eye contact</b>	. Based on available data, the classification criteria are not met.***
<b>Inhalation</b>	. Based on available data, the classification criteria are not met. Inhalation of vapors in high concentration may cause irritation of respiratory system.***
<b>Ingestion</b>	. Based on available data, the classification criteria are not met. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.***

**Acute toxicity - Component Information****Sensitization**

**Sensitization** Based on available data, the classification criteria are not met.\*\*\*

**Specific effects**

**Carcinogenicity** Based on available data, the classification criteria are not met.\*\*\*

**Mutagenicity**

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**Germ Cell Mutagenicity**

Based on available data, the classification criteria are not met.\*\*\*

**Reproductive toxicity** Based on available data, the classification criteria are not met.\*\*\*

**Repeated dose toxicity****Target Organ Effects (STOT)**

**Specific target organ systemic toxicity (single exposure)** Based on available data, the classification criteria are not met.\*\*\*

**Specific target organ systemic toxicity (repeated exposure)** Based on available data, the classification criteria are not met.\*\*\*

**Aspiration toxicity** Based on available data, the classification criteria are not met.\*\*\*

**Other information**

**Other adverse effects** Characteristic skin lesions (pimples) may develop following prolonged and repeated exposures (contact with contaminated clothing).\*\*\*

Section 12: ECOLOGICAL INFORMATION
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**12.1. Toxicity**

Based on available data, the classification criteria are not met.\*\*\*

**Acute aquatic toxicity - Product Information\*\*\***

No information available.\*\*\*

**Acute aquatic toxicity - Component Information**

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No information available.\*\*\*

**Chronic aquatic toxicity - Product Information**

No information available.\*\*\*

**Chronic aquatic toxicity - Component Information**

No information available.\*\*\*

**Effects on terrestrial organisms**

No information available.\*\*\*

12.2. Persistence and degradability**General Information**

No information available

12.3. Bioaccumulative potential**Product Information**

No information available.\*\*\*

**logPow****Component Information**

No information available\*\*\*

12.4. Mobility in soil**Soil**

Given its physical and chemical characteristics, the product generally shows low soil mobility.\*\*\*

**Air**

Loss by evaporation is limited.\*\*\*

**Water**

The product is insoluble and floats on water.\*\*\*

12.5. Results of PBT and vPvB assessment**PBT and vPvB assessment**

No information available.\*\*\*

12.6. Other adverse effects**General Information**

No information available.\*\*\*

**Section 13: DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods**Waste from Residues / Unused Products**

Should not be released into the environment. Do not empty into drains. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations. Where possible recycling is preferred to disposal or incineration.\*\*\*

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**Contaminated packaging**

Empty containers should be taken to an approved waste handling site for recycling or disposal.\*\*\*

**EWC Waste Disposal No.**

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used. The following Waste Codes are only suggestions: 13 01 10\* \*\*\*

**Other information**

Refer to section 8 for safety and protective measures for disposal personnel.\*\*\*

## Section 14: TRANSPORT INFORMATION

ADR/RID Not regulatedIMDG/IMO Not regulatedICAO/IATA Not regulatedADN Not regulated

## Section 15: REGULATORY INFORMATION

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

European Union

**REACH**

All substances contained in this mixture have been pre-registered, registered or are exempt from registration in accordance with Regulation (CE) No. 1907/2006 (REACH)\*\*\*

## International Inventories

All the substances contained in this product are listed or exempted from listing in the following inventories:

Korea (KECL)  
 China (IECSC)  
 Philippines (PICCS)  
 U.S.A. (TSCA)  
 Europe (EINECS/ELINCS/NLP)  
 Australia (AICS)\*\*\*

## Further information

No information available\*\*\*

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15.2. Chemical Safety Assessment**Chemical Safety Assessment**      No information available\*\*\*

## Section 16: OTHER INFORMATION

**Abbreviations, acronyms**

ACGIH = American Conference of Governmental Industrial Hygienists

bw = body weight

bw/day = body weight/day

EC x = Effect Concentration associated with x% response

GLP = Good Laboratory Practice

IARC = International Agency for Research of Cancer

LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one half) of a group of test animals

LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals

LL = Lethal Loading

NIOSH = National Institute of Occupational Safety and Health

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

NOEL = No Observed Effect Level

OECD = Organization for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material

ATE = Acute Toxicity Estimate

QSAR = Quantitative Structure-Activity Relationship

EL50 = median Effective Loading

NOELR = No Observed Effect Loading Rate

PAH = Polycyclic aromatic hydrocarbons

LOEC = Lowest Observed Effect Concentration

PVA = Polyvinyl alcohol

PVC = Polyvinyl chloride

ECOSAR = Ecological Structure Activity Relationships

CNS = Central nervous system

EPA = Environmental Protection Agency

ErL50 = effective loading on growth rate in algae test, to cause a 50% response

EbL50 = effective loading on growth with the control in algae test, to cause a 50% response

DNEL = Derived No Effect Level

PNEC = Predicted No Effect Concentration

dw = dry weight

fw = fresh water

mw = marine water

or = occasional release

**Legend** Section 8

OEL = Occupational Exposure Limit

TWA: Time Weight Average

STEL: Short Time Exposure Limit

PEL: Permissible exposure limit

REL: Recommended exposure limit

TLV: Threshold Limit Values



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+	Sensitizer	*	Skin designation
**	Hazard Designation	C:	Carcinogen
M:	Mutagen	R:	Toxic to reproduction

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Revision Note \*\*\* Indicates updated section.

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

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**This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.**

**End of the Safety Data Sheet**

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