



SAFETY DATA SHEET

According to the Hazard Communication Standard, 29 CFR 1910.1200

SDS # : 083335

CIRKAN RO 32

Date of the previous version: not applicable

Revision Date: 2015-04-17

Version 1

1. IDENTIFICATION

Product identifier

Product name CIRKAN RO 32

Other means of identification

Product Code(s) 083335

Number 13H
Substance/mixture Mixture

Recommended use of the chemical and restrictions on use

Identified uses Circulating oil.

Uses advised against Do not use for any purpose other than the one for which it is intended

Details of the supplier of the safety data sheet

Supplier Address TOTAL Specialties USA Inc
1201 Louisiana Street, Suite 1800
Houston, TX 77002
Phone: +1 800 323 3198

Contact Point Technical/ HSEQ

E-mail Address USRMLIN-info@total.com

Emergency telephone number

Company Phone Number +1 (908) 862-9300
Emergency telephone CHEMTREC: +1 800 424 9300 (24h)

2. HAZARDS IDENTIFICATION

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Label elements

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)



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Unknown Acute Toxicity

No information available

Hazards not otherwise classified (HNOC)

- None known

Other information

- Contaminated surfaces will be extremely slippery
- Should not be released into the environment

3. COMPOSITION/INFORMATION ON INGREDIENTS

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Additional information

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

4. FIRST AID MEASURES**First aid measures for different exposure routes**

| | |
|-----------------------|--|
| General advice | IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE. |
| Eye contact | Rinse immediately with plenty of water and seek medical advice. |
| Skin contact | Remove contaminated clothing and shoes. Wash off with soap and water. Wash contaminated clothing before reuse. |
| Inhalation | Inhalation of high concentrations of vapor or aerosols may cause irritation of the upper respiratory tract. |
| Ingestion | If swallowed, do not induce vomiting - seek medical advice. |

Most important symptoms/effects, acute and delayed

| | |
|---------------------|--|
| Skin contact | Not classified. |
| Eye contact | Not classified. |
| Inhalation | Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system. |
| Ingestion | Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. |
| Symptoms | Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. |



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Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media** Foam. Carbon dioxide (CO₂). ABC powder. Water spray.**Unsuitable Extinguishing Media** Do not use a solid water stream as it may scatter and spread fire.**Special Hazard** 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.**Explosion Data****Sensitivity to Mechanical Impact** none.**Sensitivity to Static Discharge** none.**Protective Equipment and Precautions for Firefighters** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Evacuate non-essential personnel.**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures****General Information** Do not touch or walk through spilled material. Contaminated surfaces will be extremely slippery. Avoid contact with the skin and the eyes. Use personal protective equipment. Evacuate personnel to safe areas. Ensure adequate ventilation.**Other information** See Section 12 for additional information.**Environmental precautions****General Information** Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. Try to prevent the material from entering drains or water courses. See Section 12 for additional Ecological Information.**Methods and materials for containment and cleaning up****Methods for cleaning up** Dam up. Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Use mechanical means such as pumps, skimmers and absorbent materials.**7. HANDLING AND STORAGE****Precautions for safe handling**



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| Advice on safe handling | When using, do not eat, drink or smoke. 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. |
| Hygiene measures | Regular cleaning of equipment, work area and clothing is recommended. 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. Use personal protective equipment as required. Wash hands before breaks and at the end of workday. Avoid breathing vapors, mist or gas. Avoid prolonged and repeated contact with the skin, especially with used or waste product. 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. |
| <u>Conditions for safe storage, including any incompatibilities</u> | |
| Technical measures/Storage conditions | Keep away from food, drink and animal feedingstuffs. Keep in a banded area. 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. Protect from frost, heat and sunlight. Protect from moisture. Store in original container. Keep in properly labeled containers. |
| Materials to Avoid | Strong oxidizing agents. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

| | |
|------------------------|--|
| Exposure limits | Mineral oil mist: USA: OSHA (PEL) TWA 5 mg/m ³ , NIOSH (REL) TWA 5 mg/m ³ , STEL 10 mg/m ³ , ACGIH (TLV) TWA 5 mg/m ³ (highly refined). |
|------------------------|--|

Exposure controls

| | |
|-----------------------------|--|
| Engineering Measures | Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment. |
|-----------------------------|--|

Individual protection measures, such as personal protective equipment

| | |
|---------------------------------|--|
| General Information | If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied. |
| Eye/Face Protection | If splashes are likely to occur, wear: Safety glasses with side-shields. |
| Skin and body protection | Wear suitable protective clothing. Protective shoes or boots. |



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Hand Protection

Protective gloves. Neoprene gloves. Nitrile rubber. 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. Hydrocarbon-proof gloves.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures

Regular cleaning of equipment, work area and clothing is recommended. 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. Use personal protective equipment as required. Wash hands before breaks and at the end of workday. Avoid breathing vapors, mist or gas. Avoid prolonged and repeated contact with the skin, especially with used or waste product. 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.

9. PHYSICAL AND CHEMICAL PROPERTIES**Physical and chemical properties**

| | |
|-----------------------------|--------------------------|
| Color | amber |
| Physical State @20°C | liquid |
| Odor | Petroleum distillates |
| Odor Threshold | No information available |

| <u>Property</u> | <u>Values</u> | <u>Remarks</u> | <u>Method</u> |
|-------------------------------------|-------------------------|--------------------------|---|
| pH | | Not applicable | |
| Melting point/range | | No information available | |
| Boiling point/boiling range | | Not applicable | |
| Flash point | 207 °C 405 °F | | Cleveland Open Cup (COC) Cleveland Open Cup (COC). |
| 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 | 0.868 | @ 15 °C | |
| Density | 868 kg/m ³ | @ 15 °C | |
| Water solubility | | Not applicable | |
| Solubility in other solvents | | No information available | |



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| logPow | | No information available | |
| Autoignition temperature | | Not applicable | |
| Decomposition temperature | | No information available | |
| Viscosity, kinematic | 32 mm ² /s | @ 40 °C | ISO 3104 |
| Explosive properties | Not explosive | | |
| Oxidizing Properties | Not applicable | | |
| Possibility of hazardous reactions | Not applicable | | |
| Other information | | | |
| Specific Gravity | 0.868 | @ 15 °C | |
| Freezing Point | | No information available | |
| Pour point | -17.7 °C | | ASTM D 97 |

10. STABILITY AND REACTIVITY**Reactivity****Chemical stability** Stable under recommended storage conditions.**Possibility of hazardous reactions** None under normal processing.**Conditions to Avoid** Heat, flames and sparks. Take precautionary measures against static discharges. Heat (temperatures above flash point), sparks, ignition points, flames, static electricity. Strong oxidizing agents.**Incompatible Materials** Strong oxidizing agents.**Hazardous Decomposition Products** Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.**11. TOXICOLOGICAL INFORMATION****Acute toxicity****Information on likely routes of exposure****Product Information**

| | |
|---------------------|--|
| Skin contact | Not classified. |
| Eye contact | Not classified. |
| Inhalation | Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system. |
| Ingestion | Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. |

Numerical measures of toxicity - Product Information

| | |
|----------------------|------------|
| ATEmix (oral) | 5027 mg/kg |
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| ATEmix (dermal) | 5027 mg/kg |
| Inhalation | |
| ATEmix (inhalation-dust/mist) | 5.1 mg/l |
| ATEmix (inhalation-vapor) | 20.2 mg/l |

Information on toxicological effects

Symptoms Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization Not classified as a sensitizer.
Carcinogenicity Contains no ingredient listed as a carcinogen.

Mutagenicity Contains no ingredient listed as a mutagen.
Reproductive toxicity This product does not present any known or suspected reproductive hazards.
Other adverse effects Characteristic skin lesions (pimples) may develop following prolonged and repeated exposures (contact with contaminated clothing).
Aspiration Hazard Not classified.

12. ECOLOGICAL INFORMATION**Ecotoxicity****Acute aquatic toxicity - Product Information**

No experimental data available

Acute aquatic toxicity - Component Information

No information available

Chronic aquatic toxicity - Product Information

No experimental data available

Chronic aquatic toxicity - Component Information

No information available

Effects on terrestrial organisms No experimental data available .

Persistence and degradability

General Information No information available.



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Bioaccumulative potential**Product Information** No information available.**logPow** No information available**Component Information** No information available.**Mobility****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**Other adverse effects****General Information** No information available**13. DISPOSAL CONSIDERATIONS****Waste treatment****Waste Disposal Methods** Dispose of in accordance with local regulations.**Contaminated packaging** Dispose of in accordance with local regulations.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. TRANSPORT INFORMATION**DOT** Not regulated**TDG** Not regulated**MEX** Not regulated**ICAO/IATA** Not regulated**IMDG/IMO** Not regulated**ADR/RID** Not regulated**ADN** Not regulated**15. REGULATORY INFORMATION**



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International Inventories

All the substances contained in this product are listed or exempted from listing in the following inventories:
U.S.A. (TSCA)

U.S. Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

| | |
|--|----|
| Acute Health Hazard | no |
| Chronic Health Hazard | no |
| Fire Hazard | no |
| Sudden Release of Pressure Hazard | no |
| Reactive Hazard | no |

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPS) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Chemical Name | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---|---------------|------------|--------------|----------|--------------|
| Paraffin oils (petroleum), catalytic dewaxed heavy 64742-70-7 | X | | | | |
| Distillates (petroleum), hydrotreated light paraffinic 64742-55-8 | X | | | | |

16. OTHER INFORMATION



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|--------------------|------------------------|-----------------------|--------------------------|--|
| <u>NFPA</u> | Health Hazard 1 | Flammability 1 | Instability 0 | Physical and chemical hazards - |
| <u>HMIS</u> | Health Hazard 1 | Flammability 1 | Physical Hazard 0 | Personal protection X |

NFPA (National Fire Protection Association)

HMIS (Hazardous Material Information System)

Hazards are split into categories each with a 0 to 4 rating, 0 meaning no hazard and 4 meaning high hazard

Revision Date: 2015-04-17
Revision Note No information available
Abbreviations, acronyms

Legend

Section 8
 ACGIH - American Conference of Governmental Industrial Hygienists
 OSHA - Occupational Safety and Health Administration
 NIOSH - National Institute for Occupational Safety and Health
 TLV - Threshold Limit Values
 PEL - Permissible Exposure Limits
 IDHL - Immediately Dangerous to Life or Health concentrations
 TWA - Time Weight Average
 STEL - Short Term Exposure Limits
 S* - Skin notation
 TSCA - Toxic Substance Control Act

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.

End of the safety data sheet