# Safety Data Sheet

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

## Rando MV 46, 68, 100

**Product Use:** Hydraulic Oil
**Product Number(s):** 520373, 520374, 520375
**Company Identification**
Chevron (Thailand) Ltd.
1404 Rama 3 Road
Chongnonsee, Yannawa
Bangkok 10120
Thailand

**Transportation Emergency Response**
Chevron Emergency & Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623
**Health Emergency**
Thailand: +66-2696-4125
**Product Information**
Product Information: +66-2696-4125
SDS Requests: +66-2696-4125

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:**
Not classified as hazardous according to the Hazard Classification and Communication System of Hazardous Substances B.E. 2555 (2012)

## SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

| COMPONENTS | CAS NUMBER | AMOUNT |
|---|---|---|
| Distillates, hydrotreated heavy paraffinic | 64742-54-7 | 70 - 99 %weight |

## SECTION 4 FIRST AID MEASURES

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.
**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.
**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.
**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**IMMEDIATE HEALTH EFFECTS**
**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.
Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.
**Ingestion:** Not expected to be harmful if swallowed.
**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

## SECTION 5 FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.
**Unusual Fire Hazards:** Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

**PROTECTION OF FIRE FIGHTERS:**
**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.
**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Protective Measures:** Observe all relevant local and international regulations. Eliminate all sources of ignition in vicinity of spilled material. Keep out unnecessary and unprotected personnel. Persons entering the contaminated area to correct the problem or to determine whether it is safe to resume normal activities must comply with all instructions in the Exposure Controls/PersonalProtection section.
**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.
**Reporting:** Report spills to local authorities as appropriate or required.

## SECTION 7 HANDLING AND STORAGE

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.
**Precautionary Measures:** DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.
**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**GENERAL CONSIDERATIONS:**
Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the workplace when designing engineering controls and selecting personal protective equipment (PPE). If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, refer to PPE information below.

Factors that affect PPE include, but are not limited to: properties of the chemical, other chemicals which may contact the same PPE, physical requirements (fit & sizing, cut/puncture protection, dexterity, thermal protection, etc.), and potential allergic reactions to the PPE material. It is the responsibility of the user to read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances. Refer to appropriate CEN standards.

**ENGINEERING CONTROLS:**
Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**
**Eye/Face Protection:** Wear protective equipment to prevent eye contact. Selection of protective equipment may include safety glasses, chemical goggles, face shields, or a combination depending on the work operations conducted.
**Skin Protection:** Wear chemical personal protective equipment (PPE) to prevent skin contact. Selection of chemical protective clothing should be performed by an Occupational Hygienist or Safety Professional and be based upon applicable standards (ASTM F739 or EN 374). Using chemical PPE depends upon operations conducted and may include chemical gloves, boots, chemical apron, chemical suit, and complete facial protection. **Refer to PPE manufacturers to obtain breakthrough time information to determine how long PPE can be used before it needs to be replaced.** Unless specific glove manufacturer data indicates otherwise, the below table is based upon available industry data to assist in the glove selection process and is intended to be used as reference only.

| Chemical Glove Material | Thickness (mm) | Typical Breakthrough Time (minutes) |
|---|---|---|
| Butyl | 0.7 | 120 |
| Nitrile | 0.8 | 240 |
| Viton Butyl | 0.3 | 240 |

**Respiratory Protection:** A site-specific risk assessment should be conducted by an Occupational Hygienist or a Safety Professional to determine the type and use of respiratory protective equipment. When a site-specific risk assessment determines that respiratory protection is required, use an approved respirator such as:

**Air purifying respirator -**
If an oil mist is generated (dependent upon job activity): use both an organic vapor cartridge & particulate filter (AP3 filter per EN 529:2005).
Refer to respirator manufacturers to obtain service life of cartridge / filter.

Refer to EN 529:2005, USA OSHA 1910.134, and/or other applicable local/regional/national/international standards for regulatory requirements.

**Occupational Exposure Limits:**No applicable occupational exposure limits exist for this material or its components. Consult local authorities for appropriate values.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Brown to yellow
**Physical State:** Liquid
**Odor:** Petroleum odor
**Odor Threshold:** No data available
**pH:** Not Applicable
**Vapor Pressure:** No data available
**Relative Vapor Density:** No data available
**Boiling Point:** No data available
**Solubility:** Soluble in hydrocarbon solvents; insoluble in water.
**Freezing Point:** Not Applicable
**Melting Point:** No data available
**Particle Characteristics:** Not applicable
**Density:** 0.8615 kg/l - 0.8737 kg/l @ 15°C (59°F) (Typical)
**Kinematic Viscosity:** 42 mm2/s - 104 mm2/s @ 40°C (104°F)
**Coefficient of Therm. Expansion / °F:** No data available
**Evaporation Rate:** No data available
**Partition coefficient n-octanol/water (logarithmic value):** No data available

**FLAMMABLE PROPERTIES:**
**Flashpoint:** (Cleveland Open Cup) 204 °C (399 °F) (Minimum)
**Autoignition:** No data available
**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

## SECTION 10 STABILITY AND REACTIVITY

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
**Incompatibility With Other Materials:** Not applicable
**Hazardous Decomposition Products:** None known (None expected)
**Hazardous Polymerization:** Hazardous polymerization will not occur.

## SECTION 11 TOXICOLOGICAL INFORMATION

**Eye Irritation:** The material is not considered an eye irritant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Acute Dermal Toxicity:** The material is not considered a dermal toxicant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Skin Irritation:** The material is not considered a skin irritant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Skin Sensitization:** The material is not considered a skin sensitizer. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Acute Oral Toxicity:** The material is not considered an oral toxicant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Acute Inhalation Toxicity:** The material is not considered an inhalation toxicant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.
**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The material is not considered a mutagen. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Carcinogenicity:** The material is not considered a carcinogen. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Reproductive Toxicity:** The material is not considered a reproductive toxicant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Specific Target Organ Toxicity - Single Exposure:** The material is not considered a target organ toxicant (single exposure). The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Specific Target Organ Toxicity - Repeated Exposure:** The material is not considered a target organ toxicant (repeated exposure). The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Aspiration Hazard:** The material is not considered an aspiration hazard.

**ADDITIONAL TOXICOLOGY INFORMATION:**
This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).
These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

## SECTION 12 ECOLOGICAL INFORMATION

**ECOTOXICITY**
This material is not expected to be harmful to aquatic organisms.
The product has not been tested. The statement has been derived from the properties of the individual components.

**MOBILITY**
No data available.

**PERSISTENCE AND DEGRADABILITY**
This material is not expected to be readily biodegradable. The product has not been tested. The statement has been derived from the properties of the individual components.

**POTENTIAL TO BIOACCUMULATE**
Bioconcentration Factor: No data available.
Partition coefficient n-octanol/water (logarithmic value): No data available

## SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**UN Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE UNITED NATIONS MODEL REGULATIONS/RECOMMENDATIONS

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:** Not applicable

## SECTION 15 REGULATORY INFORMATION

**REGULATORY LISTS SEARCHED:**
01-1=IARC Group 1
01-2A=IARC Group 2A
01-2B=IARC Group 2B
02-1=Thailand - Hazardous Substances - Department of Industrial Works Responsible Substances (Annex 5.1)
02-2=Thailand - Hazardous Substances - Department of Industrial Works Responsible Substances (Annex 5.2)
02-3=Thailand - Hazardous Substances - Department of Industrial Works Responsible Substances (Annex 5.3)
02-4=Thailand - Hazardous Substances - Department of Industrial Works Responsible Substances (Annex 5.4)
02-5=Thailand - Hazardous Substances - Department of Industrial Works Responsible Substances (Annex 5.5)
02-6=Thailand - Hazardous Substances - Department of Industrial Works Responsible Substances (Annex 5.6)

No components of this material were found on the regulatory lists above.

**CHEMICAL INVENTORIES:**
All components comply with the following chemical inventory requirements: AIIC (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (United States).

## SECTION 16 OTHER INFORMATION

**REVISION STATEMENT:** SECTION 03 - Composition information was modified.

**Revision Date:** July 01, 2025

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

| | |
|---|---|
| TLV - Threshold Limit Value | TWA - Time Weighted Average |
| STEL - Short-term Exposure Limit | PEL - Permissible Exposure Limit |
| | CAS - Chemical Abstract Service Number |
| ACGIH - American Conference of Governmental Industrial Hygienists | IMO/IMDG - International Maritime Dangerous Goods Code |
| API - American Petroleum Institute | SDS - Safety Data Sheet |
| CVX - Chevron | NFPA - National Fire Protection Association (USA) |
| | NTP - National Toxicology Program (USA) |
| IARC - International Agency for Research on Cancer | |

Prepared according to the Hazard Classification and Communication System of Hazardous Substances B.E. 2555 by Chevron.

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