

## Safety Data Sheet

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### 1. Identification of the Substance/Preparation and of the Company

|   |   |                     |
|---|---|---------------------|
| Product Name                            | NEOVAC MR-200   |                     |
| Product Code                            | 00013   |                     |
| Manufacturer                            | MORESCO Corporation.  |                     |
| Address                                 | 5-5-3, Minatojima-minamimachi, Chuo-ku, Kobe-city, Hyogo, Japan |                     |
| Emergency Telephone Number              | Functional Fluids Sales Department                              | Sales Section       |
|   | Tel: 81-6-6262-3310   | FAX: 81-6-6262-3327 |
|   | Functional Fluids Sales Department                              | Tokyo Sales Section |
|   | Tel: 81-3-3273-7526   | FAX: 81-3-3281-7756 |
|   | Lubricating Oils Manufacturing Department                       | Technology Section  |
|   | Tel: 81-791-42-2100   | FAX: 81-791-43-3179 |
|   | Customer Center   |                     |
|   | Tel: 81-6-6262-3385   | FAX: 81-6-6262-3327 |
|   | Email Address: customercenter@moresco.co.jp                     |                     |
| Recommended Use and Restrictions on Use | Vacuum Pump Oil   |                     |

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### 2. Hazard Identification

#### GHS Classification:

|                                  |  |
|----------------------------------|--|
| Physical Hazards                 | Not applicable to the GHS Classification |
| Health Hazards                   | Not applicable to the GHS Classification |
| Environmental Hazards            | Not applicable to the GHS Classification |
| Hazardous to Aquatic Environment |  |

#### Label Elements:

|                          |              |
|--------------------------|--------------|
| Pictograms/Symbols       | None         |
| Signal Word              | None         |
| Hazard Statements        | None         |
| Precautionary Statements | [Prevention] |
|                          | None         |
|                          | [Response]   |
|                          | None         |
|                          | [Storage]    |
|                          | None         |
|                          | [Disposal]   |
|                          | None         |

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### 3. Composition/Information on Ingredients

|   |                      |      |
|---|----------------------|------|
| Distinction between Substance and Mixture : | Substance            |      |
| Chemical Name/Generic Name :                | Petro-hydrocarbons   |      |
| Chemical Formula :                          | Not identified       |      |
| Ingredient and Concentration                | Lubricating base oil | 100% |

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### 4. First-Aid Measures

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| Inhalation:  | Remove victim to fresh air and let him rinse mouth thoroughly with water. Wrapping a blanket and the like around him to keep warm for a rest, call a doctor/physician immediately. |
| Skin Contact:  | Rinse skin with soap and water.  |
| Eye Contact:   | Immediately rinse eyes with clean water for at least 15 minutes. Remove contact lenses if present. Continue rinsing. If eye irritation persists, get medical attention.            |
| Ingestion:   | Call a doctor/physician immediately. Do not induce vomiting. If affected, the mouth should be rinsed out thoroughly with water.  |
| Expected Acute and Delayed Symptoms, and Most Important Symptoms/ Effects: | If swallowed, may suffer from diarrhea and vomiting. May cause inflammation if in eyes. May cause inflammation if on skin. May feel unwell if mist is inhaled.                     |

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### 5. Fire-Fighting Measures

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| Suitable Extinguishing Media                 | Foggy reinforcing agent, foam, powder, or carbon dioxide  |
| Unsuitable Extinguishing Media               | Jet water   |
| Specific Hazards                             | Currently there is no useful information.   |
| Specific Fire-Fighting Measures              | Shut off the fire source.<br>Use powder or carbon dioxide extinguishers at the beginning of fire. It is effective to intercept the air from a big fire with foam extinguishers. Use of water may cause spreading of fire. Cool the surrounding facilities with water spray. Evacuate non essential personnel around the fire. |
| Special Protective Actions for Fire-Fighting | Wearing protective glasses, protective clothing, and if necessary, respiratory protective equipment, start to fight fire on the windward side.  |

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### 6. Accidental Release Measures

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| Personal Precautions, Protective Equipment and Emergency Procedures | If skin or eye contact is possible, wear protective equipment. If mist is produced, wear respiratory protective equipment to avoid inhalation. |
|---|--|

|   |   |
|---|---|
| Environmental Precautions                                       | Take up as much as possible to avoid soil contamination and water pollution.<br>Avoid release to the environment.   |
| Collection/Neutralization and Methods/Materials for Containment | Eliminate the source of ignition of the surrounding.<br>In the case of a large amount: Dike ahead of liquid spill area to minimize migration and then sweep into an empty container for disposal in a safe place. After disposal, wash away with plenty of water. In doing so, take care to prevent the high concentration of wastes from entering public watercourses such as rivers.<br>In the case of a small amount: Take up into an empty container by absorbing the spill with earth and sand or rags, and furthermore sop up with rags thoroughly. |
| Prevention of Secondary Hazards                                 | Remove all the ignition sources immediately. (Do not smoke nearby and keep away from sparks and flames.)<br>Report to the related organs for help.  |

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## 7. Handling and Storage

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| Handling:   | Before repairing machinery with remnant oils on, remove them thoroughly in a safe place. Take precautionary measures against static discharge and wear electro conductive clothing and shoes.<br>As vapors released from petroleum products are heavier than air, they are liable to stagnate.<br>Due to it, attention should be paid to ventilation and fire.<br>Handle at room temperatures, paying attention to moisture and to impurities not to mix with.<br>If skin or eye contact is possible, wear protective equipment. If mist is produced, wear respiratory protective equipment to avoid inhalation.<br>Use a pump and the like to take out of container.<br>Do not suck through a tube.<br>Do not weld, heat, hole, and cut off the container. Residues may ignite involving explosion. |
| Technical Measures                                    |  |
| Local Exhaust Ventilation/<br>Full Ventilation System | Refer to '8. Exposure Controls/Personal Protection'.   |
| Avoiding Contact                                      | Refer to '10. Stability and Reactivity'.   |
| Precautions for Safe Handling                         | Obtain special instructions before use.<br>Do not handle until all safety precautions have been read and understood.<br>Be cautious not to use any naked fire.   |

As vapors released from petroleum products are heavier than air, they are liable to stagnate.

Wash hands thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Do not eat, drink or smoke when using this product.

Do not press an empty container. It may explode under pressure.

Do not drink.

Keep out of reach of children.

Storage:

Technical Measures

Avoid heat, sparks, flames, and static electricity.

Keep container tightly closed.

Incompatible Materials

Refer to '10. Stability and Reactivity'.

Conditions for Safe Storage

Store in a well-ventilated area.

Store avoiding exposure to direct sunlight.

Store away from oxidizer.

Store locked up.

Materials for Containers/Packaging

When replacing the container, use metal or glass container. Some kinds of resin-treated container may melt.

Use airtight, anti-breakage type containers.

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## 8. Exposure Controls/Personal Protection

Permissible Concentration (Exposure Limit, a biological exposure index):

Japan Society for Occupational Health (2010): 3mg/m<sup>3</sup> (mineral oil mist) <sup>1)</sup>

ACGIH (2010): TWA 5mg/ m<sup>3</sup> (mineral oil mist) <sup>2)</sup>

Standards for Allowable Density of Hazardous Substances in Labor Operation Air: Not established

Engineering Controls:

When mist and vapors are produced, seal off sources or provide exhaust ventilation. Facilities for rinsing eyes and washing a body are required near the workplace.

Personal Protective Equipment

Respiratory Protection: Wear appropriate respiratory protection.

Hand Protection: If necessary, wear oil-resistant protective gloves.

Eye Protection: If diffusion is possible, wear eye protection.

Skin and Body Protection: If necessary, wear protective clothing and face protection.

Hygienic Precautions:

Wash hands thoroughly after handling.

Regularly inspect protective equipment according to the inspection table of protective equipment.

Do not eat, drink or smoke when using this product.

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## 9. Physical and Chemical Properties

Physical State:

|  |   |
|--|---|
| Appearance                             | Liquid  |
| Color                                  | Light yellow                                      |
| Odor                                   | Slight Oily odor                                  |
| pH                                     | Not applicable                                    |
| Melting/Freezing Point                 | Not applicable                                    |
| Boiling Point                          | 230°C/13Pa(0.1mmH)                                |
| Flash Point                            | ≥250°C (COC)                                      |
| Explosive Range (Explosive Limits)     | Upper limit: 7% Lower limit: 1% (estimated value) |
| Vapor Pressure                         | No data available                                 |
| Vapor Density (air=1)                  | No data available                                 |
| Specific Gravity (Density)             | 0.88g/cm <sup>3</sup> (15°C)                      |
| Solubility                             | Insoluble in water                                |
| Partition Coefficient: n-octanol/water | No data available                                 |
| Auto-ignition Temperature              | No data available                                 |
| Pour point                             | ≤-10°C  |
| Volatility                             | None (at room temperatures)                       |

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## 10. Stability and Reactivity

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|------------------------------------|---|
| Stability                          | Stable  |
| Possibility of Hazardous Reactions | Reacts with strong oxidizer.  |
| Conditions to Avoid                | No data available (Hazardous reactions will not occur under normal use) |
| Incompatible Materials             | Strong oxidizer   |
| Hazardous Decomposition Products   | None  |

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## 11. Toxicological Information

Acute Toxicity:

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|-----------------------------------|---|
| Oral                              | ATEmix(Oral) > 5000mg/kg  |
| Dermal                            | ATEmix(Dermal) > 5000mg/kg  |
| Inhalation                        | ATEmix(Inhalation) > 5mg/L  |
| Skin Corrosion/Irritation         | Information is not classified as Skin Corrosion/Irritation.         |
| Serious Eye Damage/Eye Irritation | Information is not classified as Serious Eye Damage/Eye Irritation. |
| Respiratory or Skin Sensitization | Information is not classified as Respiratory or Skin Sensitization. |
| Germ Cell Mutagenicity            | Information is not classified as Germ Cell Mutagenicity.            |
| Carcinogenicity                   | Information is not classified as Carcinogenicity.                   |
| Reproductive Toxicity             | Information is not classified as Reproductive Toxicity.             |

|   |  |
|---|--|
| STOT/Systemic Toxicity -<br>Single Exposure   | Information is not classified as Specific Target Organ Toxicity/<br>Systemic Toxicity (Single Exposure).   |
| STOT/Systemic Toxicity –<br>Repeated Exposure | Information is not classified as Specific Target Organ Toxicity/<br>Systemic Toxicity (Repeated Exposure). |
| Aspiration Hazard                             | Information is not classified as Aspiration Hazard.  |

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## 12. Ecological Information

|                               |  |
|-------------------------------|--|
| Ecotoxicity                   | Information is not classified as Aquatic Toxicity. |
| Persistence and Degradability | No information available                           |
| Bioaccumulative Potential     | No information available                           |
| Mobility in Soil              | No information available                           |
| Hazardous to the ozone layer  | No information available                           |
| Other Adverse Effects         | No information available                           |
| Environmental Criteria        | No information available                           |

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## 13. Disposal Considerations

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| Waste Residues                           | Dispose the waste according to national and local regulations.<br>Do not dump.                               |
| Contaminated Containers<br>and Packaging | Contaminated or empty container/packaging are to be disposed according to<br>national and local regulations. |

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## 14. Transport Information

|                          |   |
|--------------------------|---|
| International Regulation |   |
| UN Classification        | Not applicable  |
| Special Precautions      | Load the containers in a manner that they are certain not to result in direct<br>sunlight exposure, damage, corrosion, leak, while being transported.<br>Do not place heavy load on top of the container. |

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## 15. Regulatory Information

No Information

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## 16. Other Information

- References:
- 1) Recommendation of Occupational Exposure Limits by Japan Society for Occupational Health
  - 2) Thresholds limit values for chemical substances and physical agents and biological exposure indices by ACGIH
  - 3) SDS of raw materials

1. As evaluations on hazards are not necessary satisfactory, special attention should be paid for use.
2. This SDS, summarizing matters to be attended to, is required for proper use of the product and is intended for

normal use.

3. Referring to this SDS, properly use and handle this product on the user's own responsibility.
4. The contents of this SDS are based on information available as of today and our knowledge. The information, data, and evaluations herein are not guaranteed, and in addition, may be revised due to revision of laws or knowledge newly obtained.