

Date Prepared: November 25, 2019

Safety Data Sheet

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

Product Name NEOVAC MR-200

Product Code 00013

Manufacturer MORESCO Corporation.

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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: 81-3-5537-7055 FAX: 81-3-5537-7059 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 Vacuum Pump Oil

Restrictions on Use

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

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Signal Word	None
Hazard Statements	None
Precautionary Statements	[Prevention]
	None
	[Response]
	None
	[Storage]
	None
	[Disposal] None

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%

4. First-Aid Measures

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.

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Expected Acute and If swallowed, may suffer from diarrhea and vomiting.

Delayed Symptoms, and May cause inflammation if in eyes.

Most Important Symptoms/ May cause inflammation if on skin.

Effects: May feel unwell if mist is inhaled.

5. Fire-Fighting Measures

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.

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 Wearing protective glasses, protective clothing, and if necessary,
Fire-Fighting. respiratory protective equipment, start to fight fire on the
windward side.

6. Accidental Release Measures

Personal Precautions, Protective If skin or eye contact is possible, wear protective equipment
Equipment and Emergency Procedures. 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.

Avoid release to the environment.

Collection/Neutralization Eliminate the source of ignition of the surrounding

and Methods/Materials for Containment. 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. 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.) Report to the related organs for help.

7. Handling and Storage

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. As vapors released from petroleum products are heavier than air, they are liable to stagnate. Due to it, attention should be paid to ventilation and fire. Handle at room temperatures, paying attention to moisture and to impurities not to mix with. If skin or eye contact is possible, wear protective equipment. If mist is produced, wear respiratory protective equipment to avoid inhalation. Use a pump and the like to take out of container. Do not suck through a tube. Do not weld, heat, hole, and cut off the container. Residues may ignite involving explosion.

Technical Measures

Local Exhaust Ventilation/ 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.

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Do not handle until all safety precautions have been read and understood. 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.

8. Exposure Controls/Personal Protection

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

Japan Society for Occupational Health (2010): 3mg/m³ (mineral oil mist) 1)

ACGIH (2010): TWA 5mg/ m³ (mineral oil mist) 2)

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.

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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.

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 $\geq 250^{\circ}\text{C}$ (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/cm³ (15°C)

Solubility Insoluble in water

Partition Coefficient: n-octanol/water No data available

Auto-ignition Temperature No data available

Pour point $\leq -10^{\circ}\text{C}$

Volatility None (at room temperatures)

10. Stability and Reactivity

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

11. Toxicological Information

Acute Toxicity:

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 – Single Exposure	Information is not classified as Specific Target Organ Toxicity/Systemic Toxicity (Single Exposure).
STOT/Systemic Toxicity – Repeated Exposure	Information is not classified as Specific Target Organ Toxicity/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

13. Disposal Considerations Waste Residues Dispose the waste according to national and local regulations. Do not dump.

Contaminated Containers and Packaging Contaminated or empty container/packaging are to be disposed according to national and local regulations.

14. Transport Information

International Regulation

UN Classification Not applicable (Not Restricted IATA)

Special Precautions Load the containers in a manner that they are certain not to result in direct sunlight exposure, damage, corrosion, leak, while being transported. Do not place heavy load on top of the container.

15. Regulatory Information

No Information

16. Other Information

References: 1) Recommendation of Occupational Exposure Limits by Japan Society for

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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. No information available