

Material Safety Data Sheet

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Product Name	Nailer Oil
Information on Ingredients	
Single Product or Mixture:	Mixture
Chemical Name:	Petroleum hydrocarbon and additives
Composition:	Lubricant base oil \geq 95 wt. percent, lubricant additives \leq 5 wt. percent
Chemical or Structural Formula:	Not identified
Notice through Official Gazettes	Not mentioned due to its confidential nature
Reference No. (Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., Industrial Safety and Health Act):	
CAS No:	Mixture Not mentioned due to its confidential nature
UN Classification and UN No.	N/A
Industrial Safety and Health Act:	Mineral oil: 90–100%
PRTR Act:	N/A (PRTR Act: Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof)
Hazard Classification	
Classification Name:	Not applicable to the classification criteria Major hazards are as follows.
Hazards:	Fire Service Act; dangerous substances; Category IV, Class IV petroleum
Toxicity:	No useful information available at this time
Environmental Impact:	No useful information available at this time
First Aid Measures	
Eyes:	Flush eye(s) with plenty of clean water and get medical attention (ref. 1).
Skin:	Flush exposed skin with water and soap.
Inhalation:	Move to an area with fresh air. Wrap up in a blanket to keep warm and remain still. Get medical attention if necessary.
Ingestion:	Get medical attention. Do not induce vomiting. If the mouth is contaminated, flush it out with plenty of water (ref. 2).

Fire-fighting Measures

Extinguishing Measures:	<ol style="list-style-type: none">1. Remove combustion sources from the origin of the fire.2. In the case of a fire in its initial stage, use dry chemical or carbon dioxide extinguishing media.3. In the case of a large-scale fire, it is effective to cut off the air supply by using fire-extinguishing foam. Pouring water on the fire may cause it to spread.4. Cool surrounding fixtures by sprinkling water.5. Fire-fighting must be done from the upward side and while wearing protective equipment.6. Only authorized persons can enter areas around the outbreak of the fire.
Extinguishing Media	Water spray (fog), foam, powder, or carbon dioxide extinguishing media are effective. Do not use a strong water jet for extinguishing.

Accidental Release Measures

Remove surrounding ignition sources.

1. In the case of a large amount: forbid entrance to the area surrounding the leakage by using ropes etc. Wear protective equipment while working. Prevent the further spread of leakage by using soil or other media. After lead the leakage flow to a safe area, collect as much of it as possible in empty containers, and take care to prevent discharge into rivers, sewage systems, etc.
2. In the case of a small amount: absorb with soil, rags, or other media and collect said media in empty containers. Afterward, wipe them off thoroughly with rags.
3. In a case at sea: extend oil fences to prevent the spread of the leakage and absorb it by using adsorption mats or other media. If using chemicals, they must comply with technical criteria defined by the applicable Ministry of Transport ordinance.
4. If leakage occurs, immediately report it to the concerned authorities in order to prevent accidents and the further spread of the leakage.

Handling and Storage

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| Handling: | <ol style="list-style-type: none">1. If handling more than the designated amount, it must be done in manufacturing, storage, or handling sites that comply with criteria defined by law.2. Avoid contact with flames, sparks, and high-temperature objects. Minimize the exhalation of vapor.3. Handle at room temperature. When handling, take care to avoid contamination with moisture and dirty materials.4. Take measures to prevent static electricity. Wear conductive work clothes, shoes, etc.5. Vapors from petroleum products tend to stagnate since they are heavier than air. Therefore, pay attention to ventilation and watch out for fires etc.6. Repair or reworking of machinery equipment in which dangerous substances are remaining must be done at a safe area and only after the remaining substances have been thoroughly removed.7. Do not drink this product.8. Wear protective equipment if your skin or eyes may come into contact with this product.9. If mist is generated, avoid inhaling it by using a respirator etc.10. When extracting this product from containers, use pumps or other equipment. Do not use a tube to suck it out with your mouth.11. Containers must be sealed. |
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Storage: 1. Store in a well-ventilated area. Keep out of direct sunlight.
2. Avoid contact with, as well as storing in same area with halogens, strong acids, alkalis, or oxidizers.

Handling of Containers: 1. Do not place pressure upon empty containers. If you do so, they may be disrupted.
2. Do not weld, heat, drill, or cut containers. If you do so, an explosion may accompany the ignition of residual materials.

Exposure Preventive Measures

Control Concentration: Not established (Working Environment Assessment Standard: Department of Labor Ordinance No. 28 dated March 27, 1995)

Acceptable Concentration: Japan Society for Occupational Health (1998): 3 mg/m³ (as mineral oil mist) (ref. 3)
ACGIH (1998) Time Weighted Average (TWA) 5mg/m³ (as mineral oil mist) (ref. 4)

Measures for Equipment: If mist is generated, confine the generation source or install an exhaust system in the handling area. Also install equipment for flushing eyes and body near the area.

Protective Equipment: Respiratory protective equipment: wear a chemical-cartridge respirator (for organic gases) if necessary.
Safety glasses: wear normal glasses in case of splashing.
Protective Gloves: wear oil-proof gloves in cases of prolonged or repeated exposure.
Protective Clothes: wear oil-proof long-sleeved working clothes etc. in cases of prolonged handling or getting wet.

Physical and Chemical Properties

Appearance: Transparent liquid (light yellow)
Volatility: None
Density (15°C): 0.87 g/cm³
Initial Boiling Point: ≥ 250 °C
Solubility in Water: Insoluble
Pour Point: -30.0 °C

Hazard Information (Stability and Reactivity)

Flush Point: ≥ 200°C (COC)
Ignition Point: No measured data available
Explosion Limit: Upper limit: 7 vol. percent. Lower limit: 1 vol. percent (estimated value)
Flammability: Yes
Ignitability (Spontaneous Ignitability, Reactivity with Water): None
Oxidizability: None
Autoreactivity & Explodability: None
Stability: Stable
Reactivity: Avoid contact with strong oxidants.

Toxicity Information (including cases and epidemiological information for humans)

Skin Corrosivity:	None
Irritation (Skin, Eye):	May cause irritation in cases of prolonged or repeated exposure.
Sensibilization:	No data available
Acute Toxicity (including LD ₅₀):	Oral (rat): LD ₅₀ : ≥ 5g/kg (estimated value)
Subacute Toxicity:	No data available
Chronic Toxicity:	No data available
Carcinogenicity:	Base oil: Assessment by OSHA: “The base oil used is a highly purified base oil that is classified in Group III by the IARC (not classifiable as a human carcinogen)” (ref. 5) Assessment by EU: “The base oil used does not need to be submitted for classification as a carcinogen” (ref. 6)
Mutagenicity (Microorganism, Chromosomal Aberration):	Additives: no data available No data available
Genotoxicity:	No data available
Teratogenicity:	No data available
Others (including the generation of harmful gases through a reaction with water):	No useful data available at this time Ingestion may cause diarrhea and/or vomiting. Contact with eye(s) may cause irritation. Contact with skin may cause irritation. Inhalation of mist may cause a feeling of unwellness.

Environmental Impact Information

Degradability:	No useful information available at this time
Accumulativity:	No useful information available at this time
Fish Toxicity:	No useful information available at this time
Others:	No useful information available at this time

Disposal Considerations

1. Business operators should dispose of their industrial waste on their own or, if there are local public authorities or industrial waste disposers that are authorized by the governor or other authorities to conduct disposal operations for such waste, delegate the disposal of the waste to them.
2. Dumping is prohibited.
3. In the case of disposing to a landfill, incinerate the waste using incineration equipment and ensure that the ashes comply with the criteria defined by the “Wastes Disposal and Public Cleansing Act” before disposal.
4. In the case of incineration, operate in safe areas and in manner that does no harm or damage to other persons and/or properties via combustion and/or explosions, and place someone on watch.

Transport Information

1. When transporting, ensure there is no leakage from the containers and take measures to load and secure them tightly in order to prevent them from turning over, falling, and/or being damaged during transport.
2. In the case of using vehicles to transport a dangerous substance in quantities greater than the designated amount, display signage on the vehicles as specified by the applicable Ministry of Home Affairs ordinance. In addition, equip fire-extinguishing equipment that is appropriate for such dangerous substances. The height of stacked containers should be less than 3 m during

transportation,

3. Do not load Category I and VI dangerous substances and high-pressure gases together.

Applicable Laws

Registration to the Existing Chemical List of the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. and the Industrial Safety and Health Act

Fire Service Act, Dangerous Substances:

Category IV; Class IV petroleum

Water Quality Pollution Control Act:

Oil discharge regulation (acceptable concentration: 5 mg/L)

Detectable as n-hexane extractables

Act for the Prevention of Marine Pollution and Maritime Disasters:

Oil discharge regulation (prohibited in principle)

Sewerage Service Act:

Mineral oil discharge regulation (5 mg/L)

Wastes Disposal and Public Cleansing Act:

Industrial waste regulation (prohibition of the spread and outflow)

Industrial Safety and Health Act:

Notifiable substances

Others (contact information for contents in this document, references, etc.)

1. ANSI Z 129.1-1994. American National Standards Institute.
2. 絵で見る中毒110番 (保健同人社) (“Illustrated guidebook of toxicosis.” Hokendojinsha, Inc.)
3. 許容濃度の勧告 (1998) 日本産業衛生学会 産業医学 38巻 (P.172-183) (“Recommendation for acceptable concentration (1998).” Industrial Health vol. 38: 172–183. Japan Society for Occupational Health.)
4. Threshold limit values for chemical substances and physical agents and biological exposure indices. ACGIH (1998)
5. IARC MONOGRAPHS ON THE EVALUATION OF THE CARCINOGENIC RISK OF CHEMICALS TO HUMANS VOLUME 33
6. (EC) Council Directive 67/548/EEC, Annex I: “Dangerous Substances List”
7. 製品安全データシートの作成指針 (日本化学工業協会) (“Preparation guide for material safety data sheets.” Japan Chemical Industry Association.)

Material safety data sheets are offered to business operators who handle hazardous chemicals as reference information to ensure the safe handling of such chemicals. Such business operators should use these sheets as reference, on their own responsibility and with an understanding of the need to take suitable measures for the practical handling of each chemical substance. This data sheet itself does not constitute a safety certificate.