

- Specific Hazards Arising from Chemicals** : Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds
- Fire fighting instructions** : Water the surrounding equipment to cool them down. Cordon off the affected place and its vicinity to all, except the concerned parties.
- Protective Equipment & Precautions for Fighters** : Ensure to wear protective equipment and approach from windward.

6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Section 8 of this SDS. See Section 13 for information on disposal. Observe the relevant local and international regulations.

- Personal Precautions, Protective Equipment and Emergency Procedures** : Avoid contact with skin and eyes. Prepare suitable equipment and materials.
- Environmental Precautions** : Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. In event of entering in the sea, extend oil fences to prevent from spreading, and sop up with absorbent materials. Use chemicals and/or detergents, they must satisfy technical standards as set by the Ministry of Land, Infrastructure and Transport / Ministry of the Environment.
- Methods and Material for Containment and Clean Up** : Promptly remove all ignition sources and stop leakages. In a small leakage, absorb and recover by use of soil, sand, sawdust and waste clothes. In a large leakage, cordon off the danger zone, prevent from entering and enclose it with sand bank and stop outflow. Cover liquid surface with foam, and recover liquid into containers.
- Additional Advice** : Local authorities should be advised if significant spillages cannot be contained.

7. HANDLING AND STORAGE

HANDLING

- Technical Measures** : In handling this material over the allocated volume, ensure approval to meet requires of the laws. Keep away from heat, sparks, open flames, hot objects. No smoking. Take measures against static discharge. Ensure to wear clothing and shoes made of conductive materials. When fixing or processing machine, it carries out after removing dangerous objects completely. NEVER suck up (siphoning) this material by mouth. Wear suitable protect equipment if skin or eye contact may cause. Seal containers hermetically without handling in violent such as falling, dropping, or jolting.
- Ventilation Precautions** : see Section 8
- Precautions for Safe Handling** : Use under normal temperature. Prevent from mixing water and impurity. Avoid contact with halogens, strong acids, alkali and oxidizing materials.

STRAGE

- Conditions for Safe Storage** : Keep containers tightly closed and in a cool, well-ventilated place away from direct sunlight. It is recommended to lock up storage area. Use properly labelled and closeable containers. Avoid heat, sparks, open flame and static accumulation.
- Technical Measures Precautions for Safe Stroage** : All electrical appliances shall be explosion-proof types, and they all must be earthed. Avoid contact and storage in same place with halogens, strong acids, alkali and oxidizing materials.
- Recommended Materials** : Storage in original containers. Do not pressurize empty containers. May cause rupture. Do not weld, heat up, drill or cut containers. May ignite the residue and cause explosion.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

If the American Conference of Governmental Industrial Hygienists (ACGIH) value is provided on this document, it is provided for information only.

- Equipment** : Seal or install ventilations for mist occurs. Install eye shower and body shower near working site.
- Standard Concentration Control** : Not specified
- OSHA, Permissible Exposure Limits (PEL)** : 5mg/m³ (as Oil mist, mineral)
- Occupational Exposure Limits** : Japan Society for Occupational Health(2012)⁽¹⁾ 3mg/m³ (as Oil mist, mineral)
ACGIH(2012) TWA[Inhalable fraction.]⁽²⁾ 5mg/m³ (as Oil mist, mineral)
- Protective Equipment Respiratory Protection** : Skin protection not ordinarily required beyond standard issue work clothes.
: No respiratory protection is ordinarily required under normal conditions of use. Use appropriate equipment in response to the circumstances.
- Hand Protection** : Use oil-proof protective hand gloves under prolonged or repeated skin contact.
- Eye Protection** : Wear safety glasses or full face shield if splashes are likely to occur.
- Skin and Body Protection** : Use oil-proof/long sleeved clothing under prolonged usage.
- Appropriate Sanitary** : Remove immediately all contaminated clothing. Contaminated clothing must be

Measures: laundered before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Liquid.
Colour	: Clear.
Odour	: Slightly odour.
Odour threshold	: Data not available.
pH	: Not applicable.
Kinetic Viscosity	: 50.5mm ² /s (20°C)
Flash point	: 180°C (COC)
Flammability of the product	: Flammable.
Upper / lower Flammability or Explosion limits	: Typical 1 - 7 %(V) (estimated)
Auto-ignition temperature	: Data not available.
Density	: Approx. 0.85g/cm ³ (15°C)
Solubility	: Water: Negligible.
Decomposition Temperature	: Data not available.
Vapour pressure	: Data not available.
Vapour density	: Data not available.
n-octanol/water partition coefficient (log Pow)	: Data not available.
Evaporation rate	: Data not available.

10. STABILITY AND REACTIVITY

Chemical Stability	: Stable under normal condition.
Hazardous Reactivity	: Avoid contact with strong oxidizing agent.
Conditions to Avoid	: Avoid contact with halogens, strong acids, alkalis, and oxidizing materials.
Incompatible Materials	: Data not available.
Hazardous Decomposition Products	: Hazardous decomposition products are not expected to form during normal storage. Generates smoke, carbon monoxide, sulfurous acid gas etc. during combustion.

11. TOXICOLOGICAL INFORMATION

Basis for Assessment	Information given is based on data on the components and the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the main component of a whole product, rather than for individual component(s).
Acute Toxicity	1 Oral Expected low toxicity: LD ₅₀ > 5000 mg/kg(estimated) ⁽³⁾ 2 Dermal Expected low toxicity: LD ₅₀ > 5000 mg/kg(estimated) ⁽³⁾ 3 Inhalation(Vapour) Data not available 4 Inhalation(Mist) Expected low toxicity: LC ₅₀ > 5 mg/l , 4h (estimated) ⁽³⁾
Skin Corrosion/Irritation	: Expected not classified as a skin irritation. ⁽³⁾ Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis.
Serious Eye Damage/Irritation	: Expected not classified as an eye irritation. ⁽³⁾ Capable of slightly irritating.
Respiratory or Skin Sensitisation	: No data available concerning respiratory sensitisation. Not expected to be a skin sensitiser. ⁽³⁾
Germ Cell Mutagenicity	: Not considered a mutagenic hazard. ⁽³⁾
Carcinogenicity	: Components are not known to be associated with carcinogenic effects. ⁽³⁾
Reproductive and Developmental Toxicity	: Not expected to be a hazard. ⁽³⁾
Specific target organ toxicity	: Not expected to be a hazard. ⁽³⁾

12. ECOLOGICAL INFORMATION

Basis for Assessment	Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products. Unless indicated otherwise, the data presented is representative of the main component of a whole product, rather than for individual component(s).
Caution Toxicity	: Poorly soluble mixture. May cause physical fouling of aquatic organisms. : Expected to be of low toxicity: Practically non toxic: LC/LL/EL/IL50 >100mg/L ⁽³⁾
Mobility	: Generally floats on water. : Lubricating oil components have estimated log Koc >3, indicating these components are likely to be adsorbed onto soil and sediment and are not likely to leach to ground water.
Persistence/degradability	: Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable.
Bioaccumulative Potential	: Not expected to be a hazard. It may contains components with the potential to bioaccumulate. ⁽³⁾
Hazardous to ozone layer	: Not classified because this product not contained substances listed on Montreal Protocol and Ozone Layer Protection Law.

13. DISPOSAL CONSIDERATIONS

- Material Disposal**
- 1 Waste disposal yourself or entrust the industrial waste treatment company who obtained the prefectural governor's permission or municipal corporation. Disposal should be in accordance with applicable regional, national, and local laws and regulations.
 - 2 Do not dispose into the environment, in drains or in water courses.
 - 3 For landfill disposal, destroy by fire and confirm cinders agreed to Waste Disposal Law.
 - 4 In event of burning this material, ensure to carryout work in safe place with guards in position, and select a method that would not cause any harm or damage to others during combustion or explosion.
- Container Disposal** : Purify and recycle or performs suitable disposal in accordance with the standard of related laws and regulations. Disposal with remove content completely.

14. TRANSPORT INFORMATION**International Restriction**

UN Class, Shipping Name : Not Dangerous Goods.

UN Number : Not applicable.

Marine Pollutant : Yes.

Domestic Restriction : Since domestic laws and regulations shown below are applicable, containers and transportation methods shall be required to follow each and every regulation.

Land Fire Service Law: Container: Dangerous goods. Group 4 (flammable liquid), Class 3 petroleum, Danger grade III
If product classified as dangerous goods, use containers (other than tanker, tank car and tank truck) for transportation usage, shall meet the Clause 2, Notice Attachment 3, concerning dangerous materials.

Sea : Ship Safety Law: Not Dangerous Goods.

Air : Civil Aeronautics Act: Not Dangerous Goods.

Specific safety measures and conditions for transportation

- 1 Caution: Flammable.
- 2 Transport remarkably with containers may not cause friction or agitation.
- 3 Display signage on vehicle and provide with fire fighting equipment, if and when required to transport more than the specified quantity. Total piled height of vehicle shall be less than 3 meters.
- 4 Consolidation of this material with dangerous goods belonging to the 1st and 6th Classification is prohibited.
- 5 Abide by other laws and regulations that are applicable.

15. REGULATORY INFORMATION

Fire Service Law : Dangerous goods. Group 4 (flammable liquid), Class 3 petroleum, Danger grade III

Pollutant Release and Transfer Register (PRTR) Law : Not applicable

Industrial Safety and Health Law : Not applicable

Poisonous and Deleterious Substance Control Law : Not applicable

Marine Pollution Protection Law : Waste Oil Regulation.

Sewage Control Law : Mineral Oil Disposal Regulation. (5mg/L)

Water Pollution Prevention Law : Oil Disposal Regulation. (5mg/L)

Waste Disposal and Public Cleaning Law : Industrial Waste Regulation.

16. OTHER INFORMATION

- Subscribe "%" in this document means weight percentage.

[Quotation]

1. Recommendation of Occupational Exposure Limits (2012), Japanese Society of Occupational Health
2. Thresholds limit values for chemical substances and physical agents and biological exposure indices, ACGIH (2012)
3. SDS of EU suppliers (2010-2012)

[Reference]

- Globally Harmonized System of Classification and Labelling of Chemicals (GHS) 4th revised edition, UNITED NATIONS(2011)
- Japanese Standards Association (JSA), JIS Z 7253:2012, JIS Z 7252:2014
- National Institute of Technology and Evaluation (nite), "GHS Information"
- Ministry of Economy, Trade and Industry, Chemical Management site.
- Ministry of Health, Labour and Welfare, "Label and MSDS information for GHS model"

Safety Data Sheet (SDS) about hazardous chemical is provided for a entrepreneur as reference information for safety handling. Refer to this document and perform suitable handling. Nothing in this document shall reduce the user's responsibility to satisfy itself as to the suitability, accuracy, reliability, and completeness of such information for its particular use. There is no warranty against intellectual property infringement. The information contained in this document is based upon data believed to be reliable through our supply chain at the time. So, we could not

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(including products containing them) with other businesses. Retailer/ Wholesaler must provide newest SDS to customers.