Safety Data Sheet (SDS)

Effective Date: February 1, 2021

--- In this revision, only our company information (address, Tel., Fax., E-mail) changed. No other change in this document. ---

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Material Name : AEROSHELL TURBINE OIL 750 Recommended Use : Aviation turbine engine oil. : Other than those above. Restricted Use Manufacturer/Supplier : Shell Lubricants Japan K.K.

1-11-1 Marunouchi, Chiyoda-ku, Tokyo, 100-6212 Japan

Telephone/Fax : Refer to end of this document.

Emergency Telephone: Refer to end of this document. (Japanese office hours only)

Number Quality Assurance Division

SDS Code : 410025

2. HAZARDS IDENTIFICATION

GHS Classification : Acute toxicity, oral: Category 4

Hazardous to the aquatic environment, chronic toxicity: Category 3

GHS Label Elements

Symbol(s)

Signal Words Warning

Hazard Statement H302: Harmful if swallowed

H412: Harmful to aquatic life with long lasting effects

GHS Precautionary Statements

Prevention : P264: Wash hand thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P273: Avoid release to the environment.

: P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel Response

P301+P330: IF SWALLOWED: Rinse mouth.

Storage : No precautionary phrases.

: P501: Dispose of contents/container to appropriate waste site or reclaimer in accordance Disposal

with local and national regulations.

Unclassified Hazard : Please see Section 4 - 8 before use for Prevention/Response/Storage/Disposal.

Information Used oil may contain harmful impurities.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance or Mixture : Mixture **Chemical Description** : Lubricating oil.

Component Information : Lubricant base oil ≥95%

Additives ≤5%

Chemical Formula : Not possible to define.

CAS registry number : Trade secret

Additional Information : If product contained highly refined mineral oil, it contains <3% DMSO-extract,

according to IP346.

Pollutant Release and Transfer : Not applicable

Register (PRTR) Law

Industrial Safety and Health Law

Poisonous and Deleterious

Substance Control Law

: Not applicable

: Not applicable

Classification of components

according to GHS

: [Chemical Identity/Hazard Class (category)/Hazard Statement/Conc.]

Polyalkylene glycol/Acute Tox. 4/H302/25-35%

N-phenyl-1-naphthylamine/Acute Tox. 4, Skin Sens. 1B, STOT RE 2, Aquatic

Acute 1, Aquatic Chronic 1/ H302,H317,H373,H400,H410/<1%

Phenothiazine/Acute Tox. 4, Skin Sens. 1B, STOT RE 2, Aquatic Acute 1, A

quatic Chronic 1/ H302,H317,H373,H400,H410/<1%

The specific chemical identities and percentages of composition have been withheld as trade secrets.

4. FIRST AID MEASURES

General Information Inhalation

: Not expected to be a health hazard when used under normal conditions.

: Remove casualty to fresh air and keep at rest in a position comfortable for breathing. Cover with blanket to keep warm and rest in a quiet surrounding. Seek immediate

medical advice and attention.

Skin Contact

: Wash skin with large amount of water using soap.

Eye Contact

: Rinse cautiously with clean water for several minutes. Remove contact lenses, if present and easy to do, and continue rinsing. After rinsing for a minimum of 15

minutes, seek medical advice and attention.

Ingestion

: Without inducing vomiting, call a doctor for treatment. If mouth has been dirtied, clean

with water.

Most Important

Symptoms/Effects, Acute

& Delayed

Immediate Medical Attention, Special

Treatment

: If swallowed, may irritate mucous membrane of stomach and induce vomiting. Inhalation if mist may cause feeling ill. Skin contact and eye contact may cause

irritation.

: Treat symptomatically. Call a doctor or poison control center for guidance.

5. FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

Suitable Extinguishing Media

: Concentrated strong liquid in mist and powder forms, carbon dioxide and foam. Use powder and carbon dioxide may be used small fires only. Effective to use foam to shutdown the air in a large fires.

Unsuitable Extinguishing

Media

: Do not use water in a jet.

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. : Local authorities should be advised if significant spillages cannot be contained.

Additional Advice

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 Precautions for Safe

Handling STRAGE

see Section 8

Use under normal temperature. Prevent from mixing water and impurity. Avoid contact with halogens, strong acids, alkali and oxidizing materials.

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 : 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

Stroage Recommended Materials :

oxidizing 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

Limits

: Not specified

OSHA, Permissible

Exposure Limits (PEL)

: 5mg/m³ (as Oil mist, mineral)

Occupational Exposure

: Japan Society for Occupational Health(2012)⁽¹⁾ Data not available. ACGIH(2012) TWA[Inhalable fraction.](2) Data not available.

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 Eye Protection

: Use oil-proof protective hand gloves under prolonged or repeated skin contact. : Wear safety glasses or full face shield if splashes are likely to occur.

Skin and Body

: Use oil-proof/long sleeved clothing under prolonged usage.

Protection

Appropriate Sanitary

: Remove immediately all contaminated clothing. Contaminated clothing must be

Measures: laundered before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : Liquid at room temperature.

Colour : Light yellow. Odour Slightly odour. **Odour threshold** Data not available. рΗ Not applicable.

Pour point <-40°C

Initial Boiling Point Expected >250°C Flash point ≥ 200°C (COC) Data not available. **Evaporation rate** Flammability (solid, gas) Not applicable.

Typical 1 - 7 %(V) (based on mineral oil) **Upper / lower Flammability or Explosion limits**

Vapour pressure Data not available.

Vapour density Data not available. Expected >1 **Density** Approx. 0.95g/cm³ (15°C) Water: Negligible.

Solubility n-octanol/water partition coefficient (log Pow) Data not available.

Auto-ignition temperature Data not available. Expected >320°C

Decomposition Temperature : 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 : Hazardous decomposition products are not expected to form during normal storage. **Products** 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). Individual components

contained above cut-off value is described on Section 3.

Acute Toxicity 1 Oral Expected to be of low toxicity: $LD_{50} > 5000 \text{ mg/kg}$, $Rat^{(3)}$

Expected to be of low toxicity: $LD_{50} > 5000 \text{ mg/kg}$, Rabbit⁽³⁾ 2 Dermal

3 Inhalation(Vapour) Data not available

4 Inhalation(Mist) Low toxicity: $LC_{50} > 5 \text{ mg/I}$, 4h, $Rat^{(3)}$

: Not classified as a skin irritation (rabbit test). (3) Prolonged/repeated contact may cause Skin Corrosion/Irritation

defatting of the skin which can lead to dermatitis.

Serious Eye

: Not classified as an eye irritation (rabbit test). (3) Capable of slightly irritating.

Damage/Irritation

Respiratory or Skin

: No data available concerning respiratory sensitisation.

Sensitisation Not expected to be a skin sensitiser. (3) **Germ Cell Mutagenicity**

: Not considered a mutagenic hazard. (3)

Carcinogenicity Reproductive and : Components are not known to be associated with carcinogenic effects. (3) : Not expected to be a hazard. (3)

Developmental Toxicity

Specific target organ : Not expected to be a hazard. (3)

toxicity - single exposure Specific target organ

toxicity - repeated

exposure **Aspiration Hazard** : Not expected to be a hazard. (3)

: Not classified as a hydrocarbon with kinetic viscosity ≤ 20.5mm2/s measured at 40°C.

Not considered an aspiration hazard.

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). Individual components

contained above cut-off value is described on Section 3.

Caution : Poorly soluble mixture. May cause physical fouling of aquatic organisms.

Practically non toxic: LC/LL/EL/IL50 $>100 mg/L^{(3)}$ **Toxicity**

Practically non toxic: LC/LL/EL/IL50 >100mg/L⁽³⁾ Aquatic Invertebrates Practically non toxic: LC/LL/EL/IL50 >100mg/L⁽³⁾ Algae Microorganisms Practically non toxic: LC/LL/EL/IL50 $>100 mg/L^{(3)}$

Acute Aquatic Toxicity Chronic Aquatic Toxicity Not expected to be a hazard. Not expected to be a hazard.

Mobility

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.

Not expected to be a hazard. It may contains components with the potential to **Bioaccumulative Potential**

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

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

Container:

International Restriction

UN Class, Shipping : Not Dangerous Goods.

Name

UN Number Not applicable. **Marine Pollutant** Yes. (contain oil.)

Domestic Restriction Since domestic laws and regulations shown below are applicable, containers and

transportation methods shall be required to follow each and every regulation.

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

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. Civil Aeronautics Act: Not Dangerous Goods. Air Specific safety measures 1 Caution: Not classified as flammable but will burn.

and conditions for

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

transportation

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

International Information

EINECS/ELINCS (EC) : All components listed or polymer exempt. TSCA (USA) All components listed or in compliance. **METI (JAPAN)** : All components listed or in compliance.

Domestic Information

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

Pollutant Release and

Transfer Register (PRTR)

: Not applicable

Law

Industrial Safety and Health : Not applicable

Poisonous and Deleterious

: Not applicable

Substance Control Law

Marine Pollution Protection

: Waste Oil Regulation.

I aw

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

Water Pollution Prevention : 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 SDS information for GHS model"

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TEL.0120-064-315 FAX.0120-264-315 (Japanese domestic only) / E-mail:csc@shell-lubes.co.jp

[SDS Author]

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