



SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : WALRUS
ISO GRADE : 46, 68
RECOMMENDED USE : Refrigeration Oil
RESTRICTIONS ON USE : This product should not be used for any other purpose than that recommended without expert advice.
COMPANY : ECO Lubricants Sdn. Bhd.
Lot 10, Jalan PJU 3/39, Sunway Damansara Technology Park, 47810 PJ, Selangor, Malaysia
+603 7883 0206

2. HAZARDS IDENTIFICATION

This material is not considered to be hazardous according to regulatory guidelines.

HEALTH HAZARDS : Excessive or prolonged exposure may result in eye, skin or respiratory irritation. High-pressure injection under skin may cause serious damage.

ENVIRONMENTAL HAZARDS : This product does not require classification on the basis of environmental hazard.

3. COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME AND SYNONYMS : Petroleum hydrocarbon and additives.

HAZARDOUS INGREDIENTS : No reportable hazardous substances or complex substances.

4. FIRST AID MEASURES

No hazards which require special first aid measures.

INHALATION : Remove from further exposure. Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion. If respiratory irritation, dizziness, nausea or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a medical device or use mouth-to-mouth resuscitation.

SKIN CONTACT : Remove contaminated clothing and flush affected area with running water. If product is injected into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

EYE CONTACT : Immediately flush with large quantity of water for at least 15 minutes. If irritation occurs, seek medical assistance.

INGESTION : Rinse mouth with water. Do not induce vomiting. Do not give milk or alcoholic beverages. Do not give anything through mouth to an unconscious person. Keep victim at rest. Seek medical assistance.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA :

- **Appropriate Extinguishing Media** : Water fog, foam, dry chemical or carbon dioxide.
- **Inappropriate Extinguishing Media** : Straight stream of water.

FIRE FIGHTING :

- **Fire Fighting Instructions** : Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.
- **Hazardous Combustion Products** : Smoke, fume, oxides of carbon, incomplete combustion products.

6. ACCIDENTAL RELEASE MEASURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

PROTECTIVE MEASURES :

- Avoid contact with spilled material.
- Do not touch or walk through spilled material.
- Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

SPILL MANAGEMENT :

- **Land Spill** : Stop leak if you can do so without risk. Recover by pumping or with suitable absorbent.
- **Water Spill** : Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn other shipping. Notify port or relevant authority and keep public away. Remove from surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material. However, geographic conditions, wind, temperature, wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted.

ENVIRONMENTAL PRECAUTION :

- **Small Spill** : Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
- **Large Spill** : Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

7. HANDLING AND STORAGE

HANDLING : Avoid eye contact and repeated or prolonged skin contact. This product is a static accumulator.

STORAGE : Do not store in open and unlabeled containers. Keep containers closed when not in use. Store in temperature below 60°C (140°F).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMIT :	ACGIH TLV/TWA	ACGIH STEL	OSHA PEL
Oil mist, refined mineral	5mg/m3	10mg/m3	5mg/m3

ENGINEERING CONTROLS : No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION : The use and choice of Personal Protection Equipment is related to the hazard of the product, the workplace, and the way the product is handled.

- **Respiratory Protection :** No special requirements under ordinary conditions of use and with adequate ventilation.
- **Hand Protection :** No special requirements under ordinary conditions of use and with adequate ventilation.
- **Eye protection :** If contact is likely, safety glasses with side shields are recommended.
- **Skin and Body Protection :** No skin protection is required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.
- **Specific Hygiene Measures :** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE :	Oily Liquid
COLOUR :	Max. 2.0
ODOUR :	Marketable
ODOUR THRESHOLD :	N/D
PH :	N/A
POUR POINT :	Max. -20°C (-4°F)
BOILING POINT / RANGE :	N/D
FLASH POINT [METHOD] :	Min. 170 °C (338° F) [ASTM D92]
EVAPORATION RATE :	< 0.01
FLAMMABILITY :	N/D
FLAMMABLE LIMITS (approximate volume % in air) :	LEL : 0.9 UEL : 7.0
AUTOIGNITION TEMPERATURE :	N/D
VAPOUR PRESSURE :	N/D
VAPOUR DENSITY (air = 1):	N/D
SPECIFIC GRAVITY (water = 1.0):	Approximately 0.90 at 15°C
SOLUBILITY IN WATER :	N/D
PARTITION COEFFICIENT (n-octanol/water) :	N/D
VISCOSITY:	N/D

10. STABILITY AND REACTIVITY

REACTIVITY : No reactivity hazards are known for the product.

CHEMICAL STABILITY : Product is stable under normal conditions.

POSIBILITY OF HAZARDOUS REACTIONS : No known hazardous reactions.

CONDITIONS TO AVOID : Excessive heat. High energy sources of ignition, flames, spark.

INCOMPATIBLE MATERIALS : Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS : Product does not decompose at ambient temperatures.

11. TOXICOLOGICAL INFORMATION

----- ACUTE EXPOSURE -----

INHALATION : Minimally toxic. Negligible irritation at ambient temperatures. Based on test data for structurally similar materials.

INGESTION : Minimally toxic. Based on test data for structurally similar materials.

SKIN : Minimally toxic. Negligible irritation at ambient temperatures. Based on test data for structurally similar materials.

EYE : May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials.

----- CHRONIC EXPOSURE -----

GERM CELL MUTAGENICITY : No data available to indicate this product or any of its components is mutagenic or genotoxic.

CARCINOGENICITY : Not carcinogenic.

REPRODUCTIVE TOXICITY : No data available to indicate this product or any of its components causes reproductive toxicity.

TERATOGENICITY : No data available to indicate that this product or any of its components causes birth defects.

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) : No data available to indicate this product or any of its components causes organ toxicity.

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) : No data available to indicate this product or any of its components causes organ toxicity.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

ECOTOXICITY : Not expected to be harmful to aquatic organisms.

MOBILITY : This product has low solubility, floats and is expected to migrate from water to land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY : No data available.

BIOACCUMULATION POTENTIAL : Bioaccumulation is unlikely due to the very low water solubility of this product, therefore bioavailability to aquatic organisms is minimal.

13. DISPOSAL CONSIDERATION

WASTE DISPOSAL : This product should not be allowed to enter waterways or soil. Not suitable for landfill. Offer surplus and non-recyclable solutions to a licensed disposal company. Disposal must be in accordance with applicable laws and regulations and material characteristics at time of disposal.

EMPTY CONTAINER WARNING (where applicable) : Empty containers may contain residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Do not attempt to refill or clean containers without proper instructions. Empty containers should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

14. TRANSPORT INFORMATION

LAND : Not regulated for Land Transport.

SEA(IMDG) : Not regulated for Sea Transport according to IMDG-Code.

AIR(IATA): Not regulated for Air Transport.

15. REGULATORY INFORMATION

Not dangerous for conveyance under UN, ADR/RID, IMO and IATA/ICAO.
All components comply with TSCA. EU labeling not required.

16. OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

No revision information is available.

The information contained in this document is based upon data believed to be reliable at the time of going to press and relates only to the matters specifically mentioned in this document. Although ECO Lubricants Sdn Bhd has used reasonable skill and care in the preparation of this information, in the absence of any overriding obligations arising under a specific contract, no presentation, warranty (express or implied), or guarantee is made as to the suitability, accuracy, reliability or completeness of the information; 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 the intellectual property infringement; and ECO Lubricants Sdn Bhd shall not be liable for any loss, damage or injury that may occur from the use of this information other than death or personal injury caused by its negligence. No statement shall be construed as an endorsement of any product or process. For greater certainty, before use of information contained in this document, particularly if the product is used for a purpose or under conditions which are abnormal or not reasonably foreseeable, this information must be reviewed with the supplier of such information.