# KORLUBE ®

## Material Safety Data Sheet

# KORLUBE ® CI-4 SYNTHETIC

Synthetic Heavy Duty Diesel Engine Oil

## 1. IDENTIFICATION Product name: KORLUBE® CI-4 SYNTHETIC 10W-30, 10W-40, 15W-40 Usage: Lubricant Company: Hyundai Emsys Inc. 16-2, Sunae-dong, Bundang-gu, Sungnam-si, Korea Tel: +82 31 713 2187, Fax: +82 31 713 2184 Emergency Call: +82 10 2281 2187 2. HAZARD IDENTIFICATION Main hazards: No significant hazard Prolonged or repeated exposure may cause irritation or dermatitis Used oil may contain harmful materials. NFPA Rating : Health = 1, Flammability = 1, Reactivity = 1 Eyes: Prolonged and repeated exposure may cause irritation Skin: Prolonged and repeated contact may cause irritation or dermatitis Inhalation: May cause irritation at throat Ingestion: No data available

## 3. COMPOSITION / INGREDIENTS

Chemical name:	Lubricating Base Oil	Additive
CAS No.:	64742-54-7	-
Content (wt%):	75-90	10-25

## 4. FIRST AID MEASURES

Eye contact:	Wash immediately with running water for 15 minutes. If irritation
	remains, consult a doctor.
Skin contact:	Wash immediately with water and soap. Remove contaminated
	clothes and footwear.
Inhalation:	Move victim to fresh air immediately. If unconscious, check for
	breathing and apply artificial respiration if necessary. Consult a
	doctor.
Ingestion:	Do Not induce vomiting. If conscious, give 1/2 liter of water to drink
	immediately, Consult a doctor.

## 5. FIRE-FIGHTING MEASURES



Extinguishing media:	Carbon Dioxide, Dry chemical powder and Alcohol resistant foam
Hazards:	During combustion, it emits toxic fumes of Carbon Monoxide, Sulfur
	Oxides and Nitrogen Oxides.
Protection:	Wear self-contained breathing apparatus.

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Refer to section 8. Exposure Controls/Personal Protection. Mark out	
	the contaminated area with signs and prevent unauthorized	
	access.	
Environmental precautions:	Do not discharge into drains or rivers. Contain the spillage using	
	banding. Alert the neighborhood about fumes or gas.	
Cleaning procedures:	Mix with sand or vermiculite. Refer to section 13 Disposal	
	Considerations.	

## 7. HANDLING AND STORAGE

Handling requirements:	Ensure enough ventilation. Avoid formation or spread of mist. Avoid
	direct contact with the substance
Storage conditions:	Store in a cool and well ventilated place. Keep container tightly
	closed. Keep away from direct sunlight. Ensure storage room has
	retention walls. Ensure the floor of storage room is impermeable.
Suitable packaging:	Must be kept in original packaging made by steel or Polyethylene.

## 8. EXPORSURE CONTROLS / PERSONAL PROTECTION

Engineering measures:	Ensure the storage room has retention walls. Ensure the floor of
	storage room is impermeable.
Hand protection:	Gloves (Oil-resistant),
Eye protection:	Safety glasses
Skin protection:	Protective clothing

## 9. PHYSICAL AND CHEMICAL PROPERTIES

State:	Liquid
Color:	Brown
Odor:	Mild characteristic odor
pH:	N/A
Flash point:	> 200°C/392°F (COC Method)
Density (@15℃):	0.860-0.865
Solubility in water:	Insoluble
Viscosity (@100℃, cSt):	10.6-14.9

#### **10. STABILITY AND REACTIVITY**

Stability: Stable



Conditions to avoid:	Heat
Materials to avoid:	Strong oxidizing agents
Hazard decomposition:	During combustion, it emits toxic fumes of Carbon Monoxide, Sulfur
products:	Oxides and Nitrogen Oxides.

## **11. TOXICOLOGICAL INFORMATION**

Chronic toxicity: Danger of cumulative effects through inhalationRoutes of exposure: Refer to section 4 First Aid Measures.

#### 12. ECOLOGICAL INFORAMTION

Mobility:	Floats on water
Persistence and degradability:	Only slightly biodegradable
Bioaccumulative potential:	Bioaccumulation potential
Other Adverse effects:	Harmful to aquatic organisms

## 13. DISPOSAL CONSIDERATIONS

Disposal operations:	D9 Physico-chemical treatment not specified elsewhere in this	
	MSDS which result in final compounds or mixtures which are	
	disposed of by means of any of the operations in this MSDS (e.g.	
	evaporation, drying, calcinations, etc.).	
	R8 Oil re-refining or other re-use of oil	
Waste code number:	54112	
Disposal of packaging:	Dispose of in a regulated landfill site or other method for hazardous	
	or toxic wastes.	
NB:	Users attention is drawn to the possible existence of any local	
	regulations regarding disposal.	

## 14. TRANSPORT INFORMATION

General: No specific transportation regulations on this product. When ship this product, closed package perfectly to avoid contacting with water and keep away from physical shock.
UN Number: N/A

#### **15. REGULATORY INFORMATION**

Hazard symbols:	No significant hazard
Water hazard class:	3 KBwS classification
Note:	The regulatory information given above only indicates the principal
	regulations specifically applicable to the product described in this
	MSDS. Users attention is drawn to the possible existence of any
	local regulations or provisions.

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## 16. OTHER INFORMATION

Notice: The information presented herein is compiled from our test and research and other sources considered to be reliable and offered in good faith for the purpose of hazard communication, but do not purport to be all inclusive and shall be used only as a guide. Because product use is beyond our control, no warranty is given, expressed or implied, and we do not assume any liability for the use of information contained herein.