



Trade name: Advantage SAE 15W-40 MACK CI-4 Plus Heavy Duty Diesel Engine Oil

SECTION 1: Identification

Product identifier used on the label:

Product Name: Advantage SAE 15W-40 MACK CI-4 Plus Heavy Duty Diesel Engine Oil

Other means of identification:

Master code: 521

Recommended use of the chemical and restrictions on use:

Recommended use: Engine oil.

Recommended restrictions: Uses other than as recommended above.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Company Name: Advanced Lubrication Specialties

Company Address: 420 Imperial Court
Bensalem, PA 19020 USA

Company Telephone: 800.331.7784

Company Contact Name: Technical Department

Company Contact Email: technical@advancedlubes.com

Emergency phone number: CHEMTREC - United States/Canada +1(800) 424-9300

SECTION 2: Hazard(s) identification

UNITED STATES:

Classification of the chemical in accordance with paragraph (d) of §1910.1200:

Not classified as hazardous under OSHA HSC 2012

GHS Signal word: None Required

GHS Hazard statement(s): None required.

GHS Hazard symbol(s): None required.

GHS Precautionary statement(s): None required.

Hazard(s) not otherwise

Classified (HNOC): None known.

Hazard(s) not otherwise classified (HNOC):

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Material may be an irritant to mucous membranes and respiratory tract. Contact with skin may result in irritation. Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract. May cause lung damage if swallowed. Small amounts of liquid aspirated into the respiratory system during ingestion or vomiting may cause bronchopneumonia or pulmonary oedema. May be an eye irritant.

Percentage of ingredient(s) of unknown acute toxicity:

Not applicable

CANADA:

Classification of the chemical in accordance with Hazardous Products Regulations (WHMIS 2015):

Not classified as hazardous under WHMIS 2015

GHS Signal word: None Required

GHS Hazard statement(s): None required.

GHS Hazard symbol(s): None required.

GHS Precautionary statement(s): None required.

Physical hazards not otherwise classified (PNOC):

None known.

Health hazard(s) not otherwise classified (HNOC):

Material may be an irritant to mucous membranes and respiratory tract. Contact with skin may result in irritation. Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract. May cause lung damage if swallowed. Small amounts of liquid aspirated into the respiratory system during ingestion or vomiting may cause bronchopneumonia or pulmonary oedema. May be an eye irritant.

SECTION 3: Composition/information on ingredients

Chemical name	CAS#	Concentration (weight %)
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	Up to 82%
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	< 5 %
Zinc alkyl dithiophosphate	84605-29-8	< 2 %

Note: The balance of the ingredients is not classified as hazardous or are below the concentration limit to be classified as hazardous, under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200 and WHMIS 2015.

SECTION 4: First-aid measures

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Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion:

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If necessary, call a poison center or physician.

Skin contact: Wash with plenty of soap and water. If irritation develops, seek medical attention.

Eye contact: Flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. If irritation develops, seek medical attention.

Ingestion: Rinse mouth and then drink plenty of water. Do not induce vomiting. Immediate medical attention required.

Most important symptoms/effects, acute and delayed:

Inhalation: Material may be an irritant to mucous membranes and respiratory tract.

Skin contact: Contact with skin may result in irritation.

Ingestion: Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract. May cause lung damage if swallowed. Small amounts of liquid aspirated into the respiratory system during ingestion or vomiting may cause bronchopneumonia or pulmonary oedema.

Eye contact: May be an eye irritant.

Indication of immediate medical attention and special treatment needed:

If any symptoms are observed, contact a physician and give them this SDS sheet. Provide general supportive measures and treat symptomatically.

SECTION 5: Fire-fighting measures

Suitable (and unsuitable) extinguishing media:

Suitable extinguishing media: Use alcohol resistant foam, carbon dioxide, water fog / spray, or dry chemical extinguishing agent.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products):

When heated to decomposition, the product may emit toxic fumes. Hazardous combustion products may include the following substances: Carbon oxides (CO, CO₂), smoke and irritating vapors as products of incomplete combustion.

Special protective equipment and precautions for fire-fighters:

Move containers from fire area if you can do so without risk.

Wear self-contained breathing apparatus and protective clothing. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

SECTION 6: Accidental release measures

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Personal precautions, protective equipment and emergency procedures:

No action shall be taken involving any personal risk or without suitable training. Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate personal protective equipment. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up:

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. If spill occurs on water notify appropriate authorities. Collect spilled material in appropriate container for disposal.

SMALL SPILLS: Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapors or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

LARGE SPILLS: Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapors. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal.

SECTION 7: Handling and storage

Precautions for safe handling:

Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not ingest. Avoid inhalation of vapor, mist or aerosols. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibles:

Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition. Store locked up. Keep container standing upright. Keep containers closed when not in use - check regularly for leaks.

SECTION 8: Exposure controls/personal protection

Control Parameters:

Ingredients with occupational exposure limits are listed below.

Chemical name	CAS#	Exposure Limits
Distillates, petroleum, hydrotreated heavy paraffinic	64742-54-7	ACGIH TWA (Inhalable fraction) - 5 mg/m ³ (oil mist)

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Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	None known
Zinc alkyl dithiophosphate	84605-29-8	None known

Appropriate engineering controls:

No special ventilation requirements. Apply technical measures to comply with the occupational exposure limits. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Ensure adequate ventilation to keep airborne concentrations low. Do not empty waste into water drains. Provide eyewash station. Eye wash fountain and emergency showers are recommended.

Individual protection measures, such as personal protective equipment:

Eye/face protection: Safety glasses with side-shields complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes.

Skin and hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Suitable examples include neoprene, nitrile, polyvinyl alcohol (PVA), Viton(R).

Respiratory protection: In case of inadequate ventilation or potential for airborne exposure to be in excess of applicable limits, wear a NIOSH-certified (or equivalent) organic vapor/particulate respirator.

General hygiene considerations: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9: Physical and chemical properties

Appearance (physical state, color, etc.):

Physical state:	Liquid
Color:	Amber/Brown.
Odor:	Mild petroleum odor.
Odor threshold:	Not determined.
pH:	Not determined.
Melting point/freezing point:	Not determined.
Initial boiling point and boiling range:	Not available
Flash point:	> 225 °C
Evaporation rate:	Not determined.

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Flammability (solid, gas):	Not applicable.
Upper/lower flammability or explosive limits	
Explosive limit – lower (%):	Not determined.
Explosive limit – upper (%):	Not determined.
Vapor pressure:	Not determined.
Vapor density:	Not determined.
Relative density:	Not determined.
Solubility (ies):	Insoluble in water
Partition coefficient (n-octanol/water):	Not determined.
Auto-ignition temperature:	Not determined.
Decomposition temperature:	Not determined.
Viscosity @ 100°C:	12.5 < 16.3 cSt

SECTION 10: Stability and reactivity

Reactivity:	No hazardous reactions anticipated under normal storage and handling conditions.
Chemical stability:	Stable under normal ambient and anticipated conditions of use
Possibility of hazardous reactions:	May react with oxidizers such as peroxides, nitric acid and perchlorates.
Conditions to avoid:	Heat, sparks, ignition points, flames, static electricity.
Incompatible materials:	Avoid contact with strong acids and oxidizing agents.
Hazardous decomposition Products:	None under normal use conditions. A complex mixture of airborne material will evolve during heating or burning. Carbon monoxide, carbon dioxide, sulfur, nitrogen and phosphorus oxides, reactive hydrocarbons and polycyclic aromatic hydrocarbons (PHs) may be formed.

SECTION 11: Toxicological information

Information on likely routes of exposure:

Inhalation: Primary route of entry.

Ingestion: Primary route of entry.

Skin: Primary route of entry.

Eyes: Primary route of entry.

Symptoms related to the physical, chemical, and toxicological characteristics:

Inhalation: Material may be an irritant to mucous membranes and respiratory tract.

Skin contact: Contact with skin may result in irritation.

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Ingestion: Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract. May cause lung damage if swallowed. Small amounts of liquid aspirated into the respiratory system during ingestion or vomiting may cause bronchopneumonia or pulmonary oedema. Eye contact: May be an eye irritant.

Delayed and immediate effects and chronic effects from short or long-term exposure:

No additional information available.

Numerical measures of toxicity (such as acute toxicity estimates):

Acute Toxicity:

Does not meet the criteria for classification.

Substance	Test Type (species)	Value
Distillates, petroleum, hydrotreated heavy paraffinic	LD ₅₀ Oral (Rat)	> 5000 mg/kg
	LD ₅₀ Dermal (Rabbit)	> 2000 mg/kg
	LC ₅₀ Inhalation (Rat)	> 5 mg/L (mist)
Distillates (petroleum), solvent-dewaxed heavy paraffinic	LD ₅₀ Oral (Rat)	> 15000 mg/kg
	LD ₅₀ Dermal (Rabbit)	> 5000 mg/kg
	LC ₅₀ Inhalation (Rat)	> 2400 mg/m ³ 4h
Zinc alkyl dithiophosphate	LD ₅₀ Oral (Rat)	2600 mg/kg
	LD ₅₀ Dermal (Rabbit)	> 3160 mg/kg
	LC ₅₀ Inhalation (Rat)	> 2 mg/L 1h

Skin corrosion/irritation:

Does not meet the criteria for classification.

Serious eye damage/eye irritation:

Does not meet the criteria for classification.

Respiratory or skin sensitization:

Does not meet the criteria for classification.

Germ cell mutagenicity:

Does not meet the criteria for classification.

Carcinogenicity:

Does not meet the criteria for classification.

Reproductive toxicity:

Does not meet the criteria for classification.

STOT – Single exposure:

Does not meet the criteria for classification.

STOT – Repeat exposure:

Does not meet the criteria for classification.

Aspiration hazard:

Does not meet the criteria for classification.

SECTION 12: Ecological information

Ecotoxicity (aquatic and terrestrial, where available):

Not expected to be hazardous to the aquatic environment

Persistence and Degradability:

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No data available.

Bioaccumulative Potential:

No data available.

Mobility in Soil:

No data available.

Other adverse effects (such as hazardous to the ozone layer):

Do not discharge the product into the environment.

SECTION 13: Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging.

Product

Dispose of waste materials in accordance with applicable local and national laws and regulations. Where possible, recycling is preferred to disposal or incineration. Contact the proper local authorities.

Contaminated packaging

Since emptied containers retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport Information

US Department of Transportation Classification (49CFR)

Not regulated under TDG.

IMDG (Transport by sea)

Not regulated under IMDG.

IATA (Country variations may apply)

Not regulated under IATA

Environmental hazards

Marine pollutant: No

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

Not applicable

Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.

None known.

SECTION 15: Regulatory Information

USA:

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United States Federal Regulations: This SDS complies with the OSHA, 29 CFR 1910.1200. The product is NOT classified as hazardous under OSHA.

Toxic Substances Control Act (TSCA) – All components either comply with the Toxic Substance Control Act (TSCA) or are not subject to TSCA requirements.

**Emergency Planning and Community Right To-Know Act (EPCRA)
Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):**
None listed at levels above 0.1%.

SARA HAZARD DESIGNATION SECTIONS 311/312 (40 CFR 370 (amended 2018)):
Not applicable

Section 313 Toxic Chemicals (40 CFR 372.65):
None listed at levels above 0.1%.

STATE REGULATIONS:

This SDS contains specific health and safety data that is applicable for state requirements. For details on your regulatory requirements, you should contact the appropriate agency in your state.

California Proposition 65 (California Safe Drinking Water and Toxic Enforcement Act of 1986:
None of the components are listed.

Massachusetts Right to Know: None of the components are listed on the Massachusetts Right to Know list at levels above 0.1%.

New Jersey Right to Know None of the components are listed on the New Jersey Right to Know List at levels above 0.1%.

Pennsylvania Right to Know: None of the components are listed on the Pennsylvania Right to Know List at levels above 0.1%.

CANADA:

This SDS complies with the requirements of WHMIS 2015.

Canadian NPRI: None of the components are listed on the National Pollutant Release Inventory at levels above 0.1%.

DSL: The components of this product are in compliance with the chemical notification requirements of the NSN Regulations under CEPA, 1999.

SECTION 16: Other Information

Revision Date March 18, 2023

DISCLAIMER:

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To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.