

SAFETY DATA SHEET

Product: ÓLEO DIESEL A S500

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1 - IDENTIFICATION

GHS Product identifier:	ÓLEO DIESEL A S500
Other means of identification:	ODS658
Recommended use of the chemical:	Used as fuel.
Specific restrictions on use:	There are not known restrictions on use.
Supplier`s details:	Acelen Address: ROD BA 523, KM 4, MATARIPE, CEP: 43900-000 - BA - Brasil. Phone number: (71) 3511-8000 / (11) 5225-8900
Emergency phone number:	EMERGENCIall: 0800 729 2756 / (11) 94759-7282 (Whatsapp) (24h)

2 - HAZARD IDENTIFICATION

Classification of the substance or mixture:	Flammable Liquids - Category 3; Acute Toxicity - Inhalation - Category 4; Skin Corrosion/Irritation - Category 2; Carcinogenicity - Category 1B; Specific Target Organ Toxicity – Repeated Exposure - Category 2; Aspiration Hazard - Category 1; Hazardous to the Aquatic Environment - Acute Hazard - Category 3; Hazardous to the Aquatic Environment - Chronic Hazard - Category 3.
Classification system adopted:	Globally Harmonized System of Classification and Labeling of Chemicals (GHS), United Nations.

GHS label elements, including precautionary statements

Pictograms:



Signal word:	DANGER
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Hazard statement(s):	H226 Flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H332 Harmful if inhaled. H350 May cause cancer. H373 May cause damage to the blood, to the thyme and to the liver through prolonged or repeated exposure. H412 Harmful to aquatic life with long lasting effects.
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Precautionary statement(s):	PREVENTION: P203 Obtain, read and follow all safety instructions before use. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed. P240 Ground and bond container and receiving equipment. P241 Use explosion-proof electrical, ventilating and lighting equipment.
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P242 Use non-sparking tools.
 P243 Take action to prevent static discharges.
 P260 Do not breathe dust/fume/gas/mist/vapours/spray.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P264 Wash hands thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 P273 Avoid release to the environment.
 P280 Wear protective gloves, protective clothing, eye protection, face protection and hearing protection.

RESPONSE TO EMERGENCY:

P301 + P316 IF SWALLOWED: Get emergency medical help immediately.
 P302 + P352 IF ON SKIN: Wash with plenty of water.
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water [or shower].
 P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P317 Get medical help.
 P318 IF exposed or concerned, get medical advice.
 P319 Get medical help if you feel unwell.
 P321 Specific treatment.
 P331 Do NOT induce vomiting.
 P332 + P317 If skin irritation occurs: Get medical help.
 P362 + P364 Take off contaminated clothing and wash it before reuse.
 P370 + P378 In case of fire: Use carbon dioxide (CO₂), hydrocarbon foam, water mist and powder to extinguish.

STORAGE:

P403 + P235 Store in a well-ventilated place. Keep cool.
 P405 Store locked up.

DISPOSITION:

P501 Dispose of contents and container in accordance with local regulations.

Other hazards which do not result in classification: The material has no other hazards.

3 - COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE A complex combination of hydrocarbons produced by the distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 to C20 and distilling in the range of approximately 163°C to 357°C (325°F to 675°F). This product contains additives

Common chemical name: Distillates (petroleum), hydrotreated middle.

Common name(s), synonym(s) of the substance:

CAS: 64742-46-7

Components contributing to the hazard: Industrial secret 1: 1 - 5 % (Classification: H317; H315; H320; H340; H350; H304; H226; H302; H331; H400; H410; H335) ^{1,2};
 Industrial secret 2: < 0.01 % (Classification: H314; H318; H302; H332) ².

¹ Contains ingredient classified as sensitizing.

In accordance with Globally Harmonized System of Classification and Labelling of Chemicals (GHS)- Chapter 1.5 and Annex 4

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² It does not have a CAS number because it is a mixture not registered in the Chemical Abstract Service database.

4 - FIRST-AID MEASURES

Description of necessary first-aid measures

Inhalation:	Remove the victim to a ventilated area and keep him at rest in a position that does not make breathing difficult. Contact a TOXICOLOGICAL INFORMATION CENTER or doctor. Take this document.
Skin:	IF CONTACT WITH SKIN (or hair): Immediately remove all contaminated clothing. Rinse your skin with water or take a shower. Contact a TOXICOLOGICAL INFORMATION CENTER or doctor. Take this document.
Eye:	Rinse carefully with water for several minutes. If you use contact lenses, remove them if it is easy. If eye irritation persists: consult a doctor. Take this document.
Ingestion:	Rinse the victim's mouth with plenty of water. If you feel unwell, contact a TOXICOLOGICAL INFORMATION CENTER or a doctor. Take this document.
Most important symptoms/effects, acute and delayed:	Causes skin irritation with redness, pain and dryness. May be fatal if swallowed and enters airways. Harmful if inhaled. May cause damage to the blood, liver and thymus through prolonged or repeated exposure.
Indication of immediate medical attention and special treatment needed, if necessary:	Avoid contact with the material when helping the victim. If necessary, symptomatic treatment should include, above all, supportive measures such as correction of hydro electrolytic and metabolic disorders and respiratory assistance. In case of skin contact, do not rub the affected area.

5 - FIRE-FIGHTING MEASURES

Extinguishing media:	Appropriate: carbon dioxide (CO ₂), hydrocarbon foam, water mist and powder. Inappropriate: water jet directly.
Specific hazards arising from the chemical:	The combustion of the chemical product or its packaging can form irritating and toxic gases such as carbon monoxide and dioxide.
Special protective actions for fire-fighters:	Self-contained respiratory protective equipment (SCBA) with positive pressure and complete protective clothing. Containers and tanks involved in the fire can be cooled with water mist.

6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:	Preventively remove all sources of ignition. Do not smoke. Avoid contact with the product. If necessary, use personal protective equipment as described in section 8.
For emergency responders:	Wear complete PPE with safety glasses, safety gloves, suitable protective clothing and closed shoes. In case of leakage, where exposure is high, it is recommended to use a suitable respiratory protection mask.
Environmental precautions:	Avoid that the spilled material reaches waterways or sewage system.
Methods and materials for containment and cleaning up:	Use natural or spill containment barriers. Absorb the spilled product with sand or other inert material and place in a container for later appropriate disposal. For final disposal, proceed in accordance with Section 13 of this document.

7 - HANDLING AND STORAGE

Precautions for safe handling

Precautions for safe handling: Handle in a ventilated area or with a general local ventilation/exhaust system. Avoid formation of

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handling: vapors and mists. Avoid contact with incompatible materials. If necessary, use personal protective equipment as described in section 8.

General hygiene: Wash your hands and face thoroughly after handling and before eating, drinking, smoking or using the bathroom.

Conditions for safe storage, including any incompatibilities

Technical measures for prevention of fire and explosion: The product is not expected to present a fire or explosion hazard.

Conditions for safe storage, including any incompatibilities: Store in a ventilated place, away from sunlight. Keep the container closed. Keep away from incompatible materials. Keep stored at room temperature not exceeding 35°C. It is not necessary addition of stabilizers and antioxidants to ensure the durability. Keep away from incompatible materials.

Packaging compatibilities: Similar to the original packaging.

Inadequate packaging materials: There are not known unsuitable material.

8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limit: The values below apply to workplaces.

- Indene:
 OSHA - PEL - TWA: 10 ppm (45 mg/m³) (29 CFR 1926.55 Table 1; 29 CFR 1915.1000 Table Z-Shipyards) (CFR);
 NIOSH - REL - TWA: 10 ppm (45 mg/m³);
 ACGIH - TLV - TWA: 5 ppm.
- Naphthalene:
 OSHA - PEL - TWA: 10 ppm (50 mg/m³) (29 CFR 1910.1000 Table Z-1) (CFR);
 NIOSH - REL - TWA: 10 ppm (50 mg/m³);
 NIOSH - REL - STEL: 15 ppm (75 mg/m³);
 ACGIH - TLV - TWA: 10 ppm (*).
- 1,3,5-trimethylbenzene:
 NIOSH - REL - TWA: 25 ppm (125 mg/m³);
 ACGIH - TLV - TWA: 10 ppm.
- 1,2,4-trimethylbenzene:
 NIOSH - REL - TWA: 25 ppm (125 mg/m³);
 ACGIH - TLV - TWA: 10 ppm.
- 1,2,3-trimethylbenzene:
 NIOSH - REL - TWA: 25 ppm (125 mg/m³);
 ACGIH - TLV - TWA: 10 ppm.
- Trimethylbenzene:
 OSHA - PEL - TWA: 25 ppm (120 mg/m³) (29 CFR 1926.55 Table 1; 29 CFR 1915.1000 Table Z-Shipyards) (CFR);
 ACGIH - TLV - TWA: 10 ppm.
- 2-Phenylpropene:
 OSHA - PEL - Ceiling: 100 ppm; 480 mg/m³;
 NIOSH - REL - TWA: 50 ppm;
 NIOSH - REL - STEL: 100 ppm;
 ACGIH - TLV - TWA: 10 ppm.

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CFR: See mentioned item in OSHA CFR;

*: Also absorbed through the skin.

Biological limit:

- Naphthalene:

ACGIH - BEI: Determinant: 1-Naphthol + 2 Naphthol. Sampling time: End of shift. Notation: Nq, Ns, H.

Nq: Biological monitoring should be considered for this compound based on the review; however, a specific BEI could not be determined due to insufficient data.

Ns: The determinant is nonspecific, since it is also observed after exposure to other chemicals.

H: The analytical method requires hydrolysis.

Other limits and values:

- Naphthalene:

NIOSH (IDLH): 250 ppm

- 2-Phenylpropene:

IDLH (NIOSH): 700 ppm.

Appropriate engineering controls:

Provide mechanical ventilation and a direct exhaust system to the outside environment. These measures help reduce exposure to the product. It is recommended to make emergency showers and eye wash stations available in the work area. Maintain atmospheric concentrations of the constituents of the material below occupational exposure limits indicated.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection:

Wide-view glasses with splash protection.

Skin protection:

Safety shoes and safety clothing to protect the whole body from chemical splashes. Protective gloves against chemicals such as PVC.

Respiratory protection:

Use of respirator with filter against vapors and organic mists is recommended for average exposures above half the TLV-TWA. In cases where exposure exceeds 3 times the TLV-TWA value, use a self-contained, full facepiece, air-supplied respirator (SCBA) operated in positive pressure mode. Follow guidance from the Respiratory Protection Program (PPR), 4th ed. São Paulo: Fundacentro, 2016.

Thermal hazards:

It does not present thermal hazards.

9 - PHYSICAL AND CHEMICAL PROPERTIES

Aspect:

Liquid, limpid.

Color:

Colorless to yellow.

Odour:

Diesel characteristic.

Melting point/freezing point:

-40 to 6 °C (-40 to 42.8 °F).

Boiling point or initial boiling point and boiling range:

172 to 379 °C (341.6 to 714.2 °F).

Flammability:

Flammable.

Lower and upper explosion limit/flammability limit:

Upper: 6 %
and Lower: 1 %.

Flash point:

≥ 38 °C (100.4 °F) - Closed cup.

Auto-ignition temperature:

≥ 225 °C (437 °F).

Decomposition

400 °C (752 °F).

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temperature:		
pH:	Not applicable.	
Kinematic viscosity:	2 to 5 mm ² /s at 40 °C (104 °F).	
Solubility(ies):	Immiscible in water (< 100 mg/L (< 100000 mg/m ³) at 20 °C (68 °F)). Soluble in organic solvents.	
Partition coefficient n-octanol/water (log value):	log <i>K</i> _{ow} : 7.7 (calculated).	
Vapour pressure:	0.4 kPa at 40 °C (104 °F).	
Relative vapour density:	Not available.	
Density and/or relative density:	Relative density: 0.8 to 0.9 (water at 4 °C(39,2 °F) = 1) at 15 °C (59 °F).	
Particle characteristics:	Not applicable.	
Other information:	Distillation range: 100 – 400°C at 760 mmHg.	

10 - STABILITY AND REACTIVITY

Reactivity:	Reactivity is not to be expected under normal conditions of temperature and pressure.
Chemical stability:	Product stable under normal temperature and pressure conditions.
Possibility of hazardous reactions:	There are not known hazardous reactions with the material.
Conditions to avoid:	High temperatures. Contact with incompatible materials.
Incompatible material:	Chlorates, chromic acid, peroxides and strong oxidizing agents.
Hazardous decomposition products:	During combustion, it releases light and heavy hydrocarbons and coke. When heated, it can release hydrogen sulfide.

11 - TOXICOLOGICAL INFORMATION

Acute toxicity:	Product not classified as acute toxic by oral and dermal. Harmful if inhaled. LC ₅₀ Dusts and mists (rats, 4h): 4.6 mg/L. LD ₅₀ Oral (rats): > 5000 mg/kg. LD ₅₀ Dermal (rabbits): > 2000 mg/kg.
Skin corrosion/irritation:	Causes skin irritation with redness, pain and dryness.
Serious eye damage/irritation:	It is not expected to cause eye irritation.
Respiratory or skin sensitization:	It is not expected to present respiratory or skin sensitization. The ingredients 2-Phenylpropene and 4-propyltoluene, classified as skin sensitizers - category 1, are in concentrations < 1% and do not contribute to this classification of the product.
Germ cell mutagenicity:	Not classified for germ cell mutagenicity. <i>in vitro</i> and <i>in vivo</i> mutagenicity studies showed negative results.
Carcinogenicity:	May cause cancer.

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	The ingredient Naphthalene, classified as carcinogenic - category 2, is in concentration < 1% and does not contribute to this classification of the product.
Reproductive toxicity:	Not classified for reproductive toxicity. Reproduction toxicity studies showed negative results.
STOT - Single exposure:	It is not expected to exhibit specific target organ toxicity by single exposure.
STOT - Repeated exposure:	May cause damage to the blood, liver and thymus through prolonged or repeated exposure.
Aspiration hazard:	May be fatal if swallowed and enters airways.

12 - ECOLOGICAL INFORMATION

Toxicity:	Harmful to aquatic life with long lasting effects. LC ₅₀ (<i>Oncorhynchus mykiss</i> , 96 h): 21 mg/L; EC ₅₀ (<i>Daphnia magna</i> , 48 h): 210 mg/L; ErC ₅₀ (<i>Pseudokirchneriella subcapitata</i> , 72 h): 22 mg/L.
Persistence and degradability:	It has persistence and is not considered rapidly degradable. Degradation rate: 35% in 28 days.
Bioaccumulative potential:	Presents high bioaccumulative potential in aquatic organisms. BCF: 1516 log K _{ow} : 7.7 (calculated).
Mobility in soil:	Not determined.
Other adverse effects:	The release of large quantities of product can cause undesirable environmental effects, such as a decrease in oxygen availability in aquatic environments due to the formation of an oily layer on the surface, coating and consequent suffocation of animals.

13 - DISPOSAL CONSIDERATIONS

Disposal methods

Must be disposed of as hazardous waste in compliance with local regulations. The treatment and disposal should be evaluated for each specific material.
Keep the material remains in its original and properly closed containers. Disposal should be performed as established for the material.

14 - TRANSPORT INFORMATION

Road:	UN - United Nations: Model Regulations: • Recommendations on the Transport of Dangerous Goods.
UN number:	1202
Proper shipping name:	DIESEL FUEL
Primary risk class or division:	3
Subsidiary risk class or division:	NA
Packing group:	III
Environmental hazards:	The product is not considered dangerous for the environment for land transport.
Railway regulations:	COTIF - Convention concerning International Carriage by Rail: • Appendix C: RID - Regulations concerning the International Carriage of Dangerous Goods

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	by Rail.
UN number:	1202
Proper shipping name:	DIESEL FUEL
Primary risk class or division:	3
Subsidiary risk class or division:	NA
Packing group:	III
Environmental hazards:	The product is not considered dangerous for the environment in rail transport.
Sea:	IMO - International Maritime Organization: • IMDG Code - International Maritime Dangerous Goods Code.
UN number:	1202
Proper shipping name:	DIESEL FUEL
Primary risk class or division:	3
Subsidiary risk class or division:	NA
Packing group:	III
Environmental hazards:	It's not considered a marine pollutant for transportation.
EmS:	F-E,S-E
Air:	IATA - International Air Transport Association: • DGR - Dangerous Goods Regulation.
UN number:	1202
Proper shipping name:	DIESEL FUEL
Primary risk class or division:	3
Subsidiary risk class or division:	NA
Packing group:	III
Environmental hazards:	The product is not considered dangerous for the environment for air transport.
Special precautions for user:	Not applicable.
Maritime transport in bulk according to IMO instruments:	Consult regulations: • International Maritime Organization: MARPOL: Articles, protocols, annexes, unified interpretations of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, consolidated edition. IMO, London, 2006; • International Maritime Organization: IBC code: International code for the construction and equipment of shipping carrying dangerous chemicals in bulk: With Standards and guidelines relevant to the code. IMO, London, 2007.

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15 - REGULATORY INFORMATION

Federal Decree No. 10,088, of November 5, 2019. Norm No. 26 (Safety Signage), from the Ministry of Labor and Social Security.
 ABNT-NBR 14725 Standard.

16 - OTHER INFORMATION

This document was prepared based on current knowledge on the appropriate handling of the product and under normal conditions of use, according to the application specified on the packaging. Any other form of use of the product that involves its combination with other materials, in addition to forms of use other than those indicated, is the responsibility of the user. Please note that handling any chemical substance requires prior knowledge of its dangers by the user. In the workplace, it is up to the company using the product to train its employees regarding the possible risks arising from exposure to the chemical product.

Texts of Hazard statements (H) mentioned in section 3:

H302 Harmful if swallowed;
 H314 Causes severe skin burns and eye damage;
 H317 May cause an allergic skin reaction;
 H318 Causes serious eye damage;
 H320 Causes eye irritation;
 H331 Toxic if inhaled;
 H335 May cause respiratory irritation;
 H340 May cause genetic defects;
 H400 Very toxic to aquatic life;
 H410 Very toxic to aquatic life with long lasting effects.

Change control:

Version	Manufacture date	Changes
05	10/27/2023	Change in composition. Change in section: 2, 3, 4, 5, 6, 7, 8, 10, 12, 13, 15 and 16.

Abbreviations:

ACGIH - American Conference of Governmental Industrial Hygienists;
 BCF - Bioconcentration factor;
 BEI - Biological Exposure Index;
 CAS - Chemical Abstracts Service;
 Ceiling - The concentration that should not be exceeded during any part of the working exposure.
 EC - European Community;
 EC₅₀ - Effective concentration of substance that causes 50 % of the maximum response;
 EEC - European Economic Community;
 ErC₅₀ - Effective concentration that results in a 50% reduction in the growth rate;
 IARC - International Agency for Research on Cancer;
 IDLH - Immediately Dangerous to Life or Health;
 K_{ow} - Octanol-water partition coefficient;
 LC₅₀ - Lethal Concentration 50%;
 LD₅₀ - Lethal Dose 50%;
 NIOSH - National Institute for Occupational Safety and Health;
 OSHA - Occupational Safety & Health Administration;
 PEL - Permissible Exposure Limit;

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REL - Recommended Exposure Limit;
 STEL - Short Term Exposure Limit;
 TLV - Threshold Limit Value;
 TWA - Time Weighted Average;
 UN - United Nations.

Bibliographic references:

ACGIH - AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIALS HYGIENISTS. TLVs® and BEIs®: Based on the Documentation of the Threshold Limit Values (TLVs®) for Chemical Substances and Physical Agents & Biological Exposure Indices (BEIs®). Cincinnati-USA, 2023.

ECHA - EUROPEAN CHEMICAL AGENCY. Available at: < <http://echa.europa.eu/web/guest> >. Access in: Oct. 2023.

GESTIS - SUBSTANCE DATABASE. Available at: < [http://gestis-en.itrust.de/nxt/gateway.dll/gestis_en/000000.xml?f=templates\\$fn=default.htm\\$3.0](http://gestis-en.itrust.de/nxt/gateway.dll/gestis_en/000000.xml?f=templates$fn=default.htm$3.0) >. Access in: Oct. 2023.

GHS - GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS. 10th rev. ed. New York and Geneva: United Nations, 2023.

HSDB - HAZARDOUS SUBSTANCES DATA BANK. Available at: <http://pubchem.ncbi.nlm.nih.gov/>. Access in: Oct. 2023.

IARC - INTERNATIONAL AGENCY FOR RESEARCH ON CANCER. Available at: <http://monographs.iarc.fr/ENG/Classification/index.php>. Access in: Oct. 2023.

IPCS - INTERNATIONAL PROGRAMME ON CHEMICAL SAFETY - INCHEM. Available at: <http://www.inchem.org/>. Access in: Oct. 2023.

IUCLID - INTERNATIONAL UNIFORM CHEMICAL INFORMATION DATABASE. [S.1.]: European chemical Bureau. Available at: <http://ecb.jrc.ec.europa.eu>. Access in: Oct. 2023.

NIOSH - NATIONAL INSTITUTE OF OCCUPATIONAL AND SAFETY. International Chemical Safety Cards. Available at: <http://www.cdc.gov/niosh/>. Access in: Oct. 2023.

REACH - REGISTRATION, EVALUATION, AUTHORIZATION AND RESTRICTION OF CHEMICALS. Commission Regulation (EC) No 1272/2008 of December 2008 amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals. Available at: < <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:353:0001:1355:en:PDF> >. Access in: Oct. 2023.

TOXNET - TOXICOLOGY DATA NETWORKING. ChemIDplus Lite. Available at: <http://chem.sis.nlm.nih.gov/>. Access in: Oct. 2023.