

Bio Synth Oil

Material Safety Data Sheet

According to Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

WWW.ADITYECOFUELS.COM

Product Identifier

Product name: Biosynth oil **Trade name:** Biosynth Oil

Emergency telephone number:

For other inquiry about the product, please call: **+91-990173-0569** or send e-mail to **varun@adityaecofuels.com**

Application of the Substance : _____

- Boiler fuel
- Furnace fuel
- Heating oil
- Feedstock for vehicle fuel refinery
- Heat Treatment fuel.



1. Identification

Substance name: Biosynth oil

Chemical characterization: Mixture

CAS number:

Benzene (1~5%)	71-43-2
Ethly Benzene (5~10%)C	100-41-4
Styrene (3~6%)	100-42-5
Toluene (7~10%)	108-88-3
Naphthalene (<5%)	91-20-3
Substance	100%

General Information :

- HCC F4
- pH value: N/A
- Boiling point: 150 162.77 °C
- Vapor Pressure: Negligible
- Vapor Density: >1 (Air=1)
- Spec Gravity: 0.8222-0.9195
- Evaporation Rate & Reference: <1 (Ether=1)
- Solubility in Water: Not Applicable
- Appearance and Odor: Amber liquid with olei smell

2. Flammable and Explosive Properties

- Flashpoint: 65 °C
- Flammability Classification: B3

(OSHA 1910.1200)

3. Potential Health Effects

a. Inhalation

Short-term exposure above the occupational exposure limit may cause temporary discomfort to upper respiratory tract may occur due to mechanical irritation.

Long-term exposure may result in a small non-clinically significant increase in normal loss in one aspect of lung function.

b. Ingestion

No evidence of adverse effects from available data

c. Eye

High dust concentrations may cause mechanical irritation to eye.

d. Skin

May cause mechanical irritation, soiling, and skin drying

e. Chronic

Biosynth oil is possibly carcinogenic to humans (Group 2B) based on laboratory animal inhalation studies.

See also: Section 12. Toxicological Information

f. Physical property

Flammable Properties

It may not be obvious that Biosynth oil is burning unless the material is stirred and sparks are apparent. Biosynth oil that has been on fire should be observed closely for at least 48 hours to ensure no smoldering material is present.

Biosynth oils containing more than 8% volatile materials may form an explosive dust-air mixture. Manufactured Biosynth oils do not exceed 8% volatile materials content (unless otherwise noted by the supplier on package and MSDS)

g. Static Charge Effects

Some grades of Biosynth oil are sufficiently electrically non-conductive to allow a build-up of a static charge during handling.

See also: Section 3. Physical and Chemical Properties

4. Chemical property

Normal combustion forms carbon dioxide (CO2); incomplete combustion can produce carbonmonoxide (CO).

5. Potential Environmental Effects

No significant environmental hazards are associated with Biosynth oil release to the environment. **Biosynth oil is not soluble in water**

See also: Section 12. Ecological Data

a. Inhalation

Remove to fresh air. Get medical attention if symptoms occur

b. Ingestion

Seek medical attention. Do not induce vomiting. Do not give mouth-to-mouth.

c. Eye

Flush with eye solution or large amounts of water. Continue until irritation subsides. Get medical attention immediately.

d. Skin

Immediately wash with warm water and soap.

Note to Physicians - Treat symptomatically.

6. Firefighting Measures

- Foam
- CO2

- Dry chemicals
- Water fog

Avoid high-pressure water stream as this may spread burning oil as it will float. A fog spray is recommended when water is used. If possible, use water spray to cool down containers in hazard area from a safety distance.

Protection of Firefighters

Wear full protective firefighting gear (Bunker gear), including self-contained breathing apparatus (SCBA). Special hazards arising from the chemical (e.g. nature of any hazardous combustion products) include carbon monoxide (CO), carbon dioxide (CO2), sulfur oxide (SOx) and nitrogen oxide (NOx). Beware of potential dust explosion. In addition, wet Biosynth oil produces slippery walking surfaces.

- Small Spill Control and Recovery
- Large Spill Control and Recovery

a. Small Spill Control and Recovery

Oil absorbent should be used to contain and soak up oil. Do not use a combustible material. Wear appropriate personal protective equipment.

b. Large Spill Control and Recovery

Safely eliminate the source of the leak. Eliminate ignition sources. Prevent runoff from entering storm sewers and ditches. Water fog can be used to control vapors.

If spills are massive, please contact emergency control unit for help

Note to Staff

- Be sure the situation is handled by trained staff.
- Please wear appropriate personal protective equipment and respiratory protection when handling the situation

7. Accidental Release Measures

Set the contaminated site as restricted area until its clean-up

See also: Section 9. Exposure Controls & Personal Protection

a. Handling

Only in well ventilated areas. Keep container closed when not dispensing product. Avoid body contact. Use grounding and bonding devices when transferring material.

Be sure to apply appropriate mitigating procedures to following operations, which have the potential of generating an accumulation of electrostatic charge and/or a flammable atmosphere:

- Tank and container filling
- Splash filling
- Tank cleaning
- Sampling
- Gauging

- Switch loading
- Filtering
- Mixing
- Agitation
- Vacuum truck operations

Please wear appropriate personal protective equipment and respiratory protection when handling the substance.

b. Storage

Store in tight sealed container at ambient temperature in well ventilated areas. Do not store near flame or heat.

8. Handling and Storage _____

- Hazardous Decomposition Products
- CO
- H2S

See also: Section 9. Exposure Controls & Personal Protection

Personal Protective Equipment (PPE)

Please wear appropriate personal protective equipment and respiratory protection when handling the situation.

a. Respiratory

Approved respirators should be used where airborne concentrations are expected to exceed occupational exposure limits.

Use a positive-pressure, air supplied respirator if there is any potential for uncontrolled release, exposure levels are not known, or any circumstances where air-purifying respirators may not provide adequate protection.

A complete respiratory protection program in accordance with national standards and current best practices must accompany use of any respirator.

b. Eye Protection

Wear safety glasses or goggles.

c. Hand Protection

Protective gloves made of rubber nitrile or viton may be used to protect hands from Biosynth oil soiling. Wash hands and other exposed skin with mild soap. Use of a barrier cream may help to prevent skin drying.

d. Skin Protection

Wear general protective clothing to minimize skin contact. If needed, a boiler suit and a pair of working boots are recommended. Work clothes should not be taken home and should be washed daily even before its disposal.

9. Exposure Controls & Personal Protection

a. General Hygiene Considerations

- Emergency eyewash and safety shower should be in close proximity.
- Wash hands and face thoroughly with mild soap before eating and drinking.
- Do not smoke, eat, or drink at workplace, where should be kept clean and dry.
- Keep working place clean and tight.

b. Engineering Controls

Use process enclosures, explosion proof local exhaust and general ventilation to maintain airborne Concentrations below the applicable exposure limits. Biosynth oil should be stored away from heat and flame.

c. Administrative Controls

Training must be conducted before routine and non-routine handling.

- Stability: Stable under normal ambient conditions.
- **Conditions to Avoid:** Exposure to flame, heat. Or high temperature above 300°C (572°F) and open flames.
- Materials to Avoid: Strong oxidizers, such as chlorates (Cl), bromates (Br), and nitrates (NO3)
- **Hazardous Decomposition Products:** Carbon monoxide (CO), carbon dioxide (CO2), organic products of decomposition, or oxides if heated above decomposition temperature.

10. Stability and Reactivity

- Hazardous Polymerization: Will not occur.
- Acute Toxicity

11. Toxicology Information

Nervous system, blood disorders, liver and kidney will be damaged.

- Ingestion *LD50s for rats*: 930 mg/kg benzene, 3,500 mg/kg ethyl benzene, 1,250 mg/kg naphthalene, 5,000 mg/kg styrene.
- Ingestion *LD50s for mice:* 4,700 mg/kg benzene, 354 mg/kg naphthalene, 316 mg/kg styrene, 1.12 mg/kg toluene.

- Inhalation *LD50s for rats:* 10,000ppm benzene, 4,000 ppm ethyl benzene, 24hm/m3 styrene.
- Inhalation *LD50s for mice*: 9,980 ppm benzene, 400 ppm toluene.
- **Skin** *Lethal limits at dermal LD50s in rabbits:* >8,263 mg/kg benzene, 17,800 mg/kg ethyl benzene, >20 gm/kg naphthalene, and 14 mg/kg toluene.
- **Eye**: Mild to severe irritation.

a. Sub-Chronic

Rats exposed to 13.6, 136, 408, 680 mg/kg/day ethyl benzene in 182-day oral bioassay indicate liver and kidney damage at and above 408 mg/kg/day. Rat oral exposure to 0, 312, 625, 1,250, 2,500, 5,000 mg/kg toluene for 13 weeks. Death occurred within one week at 5,000 dose and within test period at 2,500. No deaths occurred at lower dosages. Toxic affects included prostration, hyperactivity, ataxia, pilo erection, lacrimation, excessive salivation, body tremors.

12. Ecological Data

a. Mobility

Not soluble in water.

Bioaccumulation: Potential bioaccumulation is expected because of physio-chemical properties of the substance.

13. Disposal Consideration

If discarded in original form, dispose of as material (D001) under RCRA otherwise contact local environmental manager and dispose of in accordance with local, state and federal regulations.

14. Transport Information _____

Technical shipping name	DOT Hazard class	UN/NA Number	Packing Group
Biosynth Oil	ш	UN 1136	Ш

15. Regulatory Information

OSHA Status

This product is considered hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR1910.1200

CERCLA Reportable quantities

Benzene (1~5)	10
Ethly Benzene (5~10)	1000
Styrene (15~25)	1000
Toluene (8~14)	1000
Naphthalene (<5)	1000

Extremely Hazardous Substances: No

See Section 3. Hazard Identification

Disclaimer :

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue but is not intended to meet any specification and does not imply any guarantee or warranty by Aditya Eco Fuels. For more information and assistance, please call + 91-99017-30569.

Date of preparation: 18-12-2022

Date of revision: 09-01-2023

Unit 1	Unit 2	Unit 3
#47, Opp to ANZ factory, Sompura Industrial area 1st Phase Dobbaspet, Nelamangala, Bengaluru - 562111	#489, behind Triveni Turbines, sompura industrial area, 2nd phase, Tyamagondlu area, Dabaspet, Bangalore 562132	Mandli, kallur industrial area Shivamogga - 577202