

INDIAN INSTITUTE OF TECHNOLOGY, BOMBAY

Sophisticated Analytical Instrument Facility (SAIF)

ANALYSIS REQUEST FORM AND SAFETY DATA SHEET -LCMS/QTOF

User Type: IITB/ External (University/National Lab/R & D/Industry)

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Name of Guide: Dr. Smitha Vijayan

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1. **Sample Name:** HPLC grade Ethanol Plant Extract of *Peganum harmala seed* (PH)
2. **Number of Samples:** 1
3. **Analysis required** – Both (Qualitative and Quantitative)
4. **Details of Analysis required:**
 - **HR-LCMS (High-Resolution Liquid Chromatography Mass Spectrometry) Analysis**
 - **Target Components:** Identification and quantification of bioactive compounds in the HPLC grade Ethanol Plant Extract.
 - **Purpose:** To detect and analyze potential antimicrobial or other biologically active compound produced by *Peganum harmala seed* (PH)
5. **Expected compounds with empirical formula:**

All possible bioactive compounds are present in the sample.
6. **Sample Type:** Liquid
7. **Sample Category:** Organic (Plant Extracts)
8. **Sample volume:** 2 mL
9. **Sample Preparation:** Not Applicable
10. **Solvents required-** HPLC grade Ethanol
11. **Sample nature:** Organic
12. **Moisture:** Present
13. **Volatile organic compound:** Present
14. **Stability of sample:** not Stable under RTP

15. Specify the Storage and handling conditions: Refrigerator

16. Sample Properties: Non Carcinogenic

17. Whether incompatible with any material- Yes, as HPLC grade Ethanol can be incompatible with strong oxidizing agents, strong acids, and certain amines.

- Strong oxidizing agents (e.g., nitric acid, chlorates)
- Strong acids (e.g., sulfuric acid, hydrochloric acid)
- Strong bases (e.g., sodium hydroxide, potassium hydroxide)
- Halogenated compounds (e.g., chlorine, fluorine)
- Amines

18. Toxicity: Non Hazardous

19. Health hazards: Yes (irritant to skin, irritant to eye, toxic if inhaled, toxic if ingested)

20. First aid measures:

- Eye: Rinse eyes immediately with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.
- Skin: Wash skin with soap and water. Remove contaminated clothing. Seek medical attention if irritation develops.
- Inhalation: Move to fresh air. Seek medical attention if symptoms persist.
- Ingestion: Do not induce vomiting. Rinse mouth with water. Seek medical attention immediately.

21. Disposal Method of sample :

Dispose of according to local regulations. HPLC grade Ethanol Organic samples should be treated as hazardous waste and disposed of in designated waste containers for chemical and biological materials.

22. Additional information if any:

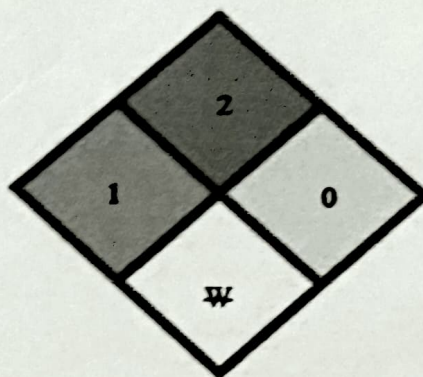
- Ensure proper ventilation when handling HPLC grade Ethanol to minimize inhalation risks.
- Use personal protective equipment (PPE) such as gloves, goggles, and lab coats while handling the sample to prevent direct contact and exposure.
- Consider the potential for the extract to contain bioactive compounds from *Peganum harmala* seed (PH), and take appropriate precautions when working with it.

23. Label the sample(s)/ sample container(s) with hazard category: Flammable

24. All Samples will be discarded within 7 days of analysis. If you wish to collect the samples then you are required to make arrangement for the same. SAIH office will not dispatch the same to users under any circumstances.

25. MSDS (should be uploaded/ attached if available): Yes

26. Please fill in appropriate numbers in the NFPA diamond: (*Kindly refer the image at the end of the file for reference);



Declaration

I confirm that the samples submitted for analysis are for research purpose only and the above furnished details are correct and true to the best of my knowledge. I understand that I will be held responsible for any damages arising from incorrect information provided by me against points 16-19.

I agree to acknowledge DST and SAIF/CRNTS, IIT Bombay for providing HR-LCMS (QTOF) analytical facility for my research work, in my publications. I also agree to send the publication reference (Journal name/volume number/names of the authors/date of issue of the publication etc.) to office.saif@iitb.ac.in

I declare that the "Content of this report is meant for our information only and we will not use the content of this report for advertisement, evidence, litigation or quote as certificate to third party"

I accept that all the issued reports/results (Soft/hard) will not carry any Signature or Seal and Stamp of SAIF/CRNTS IIT Bombay.

Signature of the User

Date: 24 / 03 / 2025

Place: Tiruvalla



Signature of the Guide seal / stamp

Dr. Smitha vijayan - Associate
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Advanced Studies Tiruvalla
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