



हिमाचल प्रदेश केंद्रीय विश्वविद्यालय Central University of Himachal Pradesh

(Established under Central Universities Act 2009, No. 25 of 2009,

Ministry of Education, Govt. of India)

Academic Block - Shahpur, Distt. - Kangra (H.P.) - 176206, INDIA

Accredited by NAAC with "A+" Grade with a CGPA of 3.42



Date: 09-06-2025

To,
The Head
SAIF, IIT Bombay.

Sub: TGDTA (Instrument/facility name) Analysis of Samples at SAIF IIT Bombay.

Dear Sir,

✓
Mr./Ms. Vishal Bharati Jaryal, (Name of the user) Research Scholar (Designation) studying/employed at our Institute under the guidance of Dr. Neeraj Gupta (Guide Name) & Deptt. of Chemistry (Department) would like to use the Instrument Facility at SAIF IIT Bombay.

We have 01 (No. of Samples) for TGDTA (name of instrument/facility). The Material Safety Data Sheet (MSDS) is attached herewith for the said analysis.

Further we state that if any of the analysis data / results received from the TGDTA (Instrument/facility name) facility is used in any Publication or Thesis, we agree to acknowledge the TGDTA (Instrument/facility name) SAIF, IIT Bombay in our Publication and Thesis. We shall submit a soft copy of the same to office.saif@iitb.ac.in for information.

Further we acknowledge & accept that:

- The contents of the report prepared based on the measurement are purely technical/scientific in nature.
- This report is not a legal document per se and is based on the samples provided by us.
- We (the applicants) understand and accept that this report is not a certificate for any performance / efficacy / efficiency / utility related aspects. This report may not be construed as a legal document, certificate or endorsement and may not be used for marketing of the products or processes.
- We (the applicants) shall be solely responsible for any intended use / utilization of the report provided and / or the contents thereof. All warranties or representations of any kind pertaining to the report, or its contents are hereby expressly excluded.
- I accept that all the issued reports/results (Soft/hard) will not carry any Signature or Seal and Stamp of SAIF IIT Bombay.
- If our Institute has GST Number. But if we fail to provide the same to you, in that case Invoice / Bill will be generated without GST No. and request to add GST No. after invoice generation will not be entertained by SAIF is acceptable by us.

The GSTIN Registration No. of our Institute is _____

Thanking You,

Signature of Guide / Professor / Head :
Name :
Designation :
Department :

Dr. Neeraj Gupta
Assistant Professor
Deptt. of Chemistry and Chemical Sciences

Dr. NEERAJ GUPTA
[Fulbright Scholar and Chinese Academy of Sciences Fellow]
Assistant Professor
Department of Chemistry and Chemical Science
Central University of Himachal Pradesh
Dharamshala, Himachal Pradesh (India) - 176215

** This Covering Letter should be on your Institute's Original Letterhead which should have your Institute complete postal address with state and pin code duly signed and with Institute's official seal. Any Letter with incomplete details and without Institute's official stamp will not be entertained.

INDIAN INSTITUTE OF TECHNOLOGY, BOMBAY
Sophisticated Analytical Instrument Facility (SAIF)

ANALYSIS REQUEST FORM AND SAFETY DATA SHEET – TGDTA
User Type: IITB/ EXTERNAL (University/National Lab/R & D /Industry)

Name of the User: Vishal Bharati Jaryal Email: vishaljaryal.cuhpchem19@gmail.com Contact No: 8219644706 Name of Institute/Organization: Central University of Himachal Pradesh Address of Institute/Organization: Deptt. of Chemistry and Chemical Sciences, Academic Block – Shahpur, Distt. – Kangra (H.P.) - 176206	Name of Guide/ PI: Dr. Neeraj Gupta Email: gupta_nrj@hpcu.ac.in Contact No.: 8894211891
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1. Number of Samples: 01

2. Heating Program: (Add more rows if required OR attach a separate sheet)

S. No.	Sample Name	Temp. range (RT to°C)	Heating rate (Ramp) °C/min	Atmosphere (N ₂ , Ar, Air, O ₂)	Analysis reqd. TGA/ DTA/ Both
1.	EA_23	600°C	10°C / Min	N ₂	Both
2.					
3.					
4.					
5.					

Samples containing alkali metal oxides, hydroxides, heavy metals, alkali metal halides, nitrates or large amounts of sulphur when heated in platinum crucible can erode the crucible.

3. Does the sample contain any Halogens/ Corrosive substance? YES / NO

4. Hygroscopic or non-hygroscopic: Non Hygroscopic

5. Explosive or non-explosive at higher temp: Non Explosive

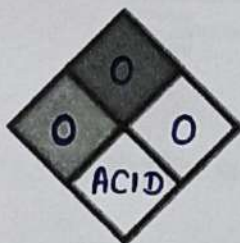
6. Does your sample contain any heavy metals like lead, bismuth, tin, arsenic, silver, mercury, copper, Selenium, tellurium, etc.? If yes, specify. Not Applicable

Notes:

- At least 30-40 mg of sample should be submitted.
- Sample size should be < 5mm in diameter and <2.5 mm in thickness.
- Samples with corrosive substance that will react with Aluminium/Platinum/Ceramic pans at the should not be sent for analysis by TGDTA or DSC.
- Samples should not be toxic or hazardous.
- Radio-active material, unstable and explosive compounds are not accepted for analysis.
- Interpretation of spectra is NOT undertaken.

Additional Information

1. Moisture: Present/Absent/NA ✓
2. Sample nature: Organic/Inorganic /Any other characteristic nature(Specify) ✓
3. Sample Properties: Carcinogenic (carcinogenicity level-----)/Non Carcinogenic/ Radioactive/Explosive/Toxic/Corrosive/Flammable/ Non flammable/ Other(specify) ✓
4. Stability of sample: Stable under RTP/hygroscopic/sublimes/ Reactive in air/moisture/ light/heat ✓
5. Toxicity: Non-Toxic / Mildly toxic/ Highly toxic. ✓
6. Potential Health Hazards: Yes/No (irritant to skin/irritant to eyes/harmful to skin/ toxic if inhaled/toxic if ingested) ✓
7. Precautions for Safe Handling and Use: NA
8. Symptoms on Exposure: Difficulty in breathing/reddening of skin/burning sensation in eyes/vomiting/giddiness/headache/unconsciousness/ NA Others(specify)
9. First aid measures: NA
10. Disposal Method of sample NA
11. Label the sample/ sample container with hazard class
12. 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. SAIF office will not dispatch the same to users under any circumstances.
13. Please fill in appropriate numbers in the NFPA diamond if MSDS available: (#Kindly refer the image at the end of the file for reference):

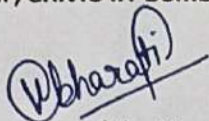


Declaration

I confirm that the samples submitted for analysis are for research purposes only and that 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 7-10.

I agree to acknowledge DST and SAIF, IIT Bombay for providing (Instrument name) 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

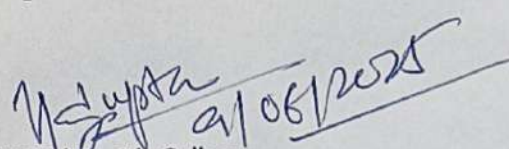
I declare that the "Content of this report is meant for our information only and we will not use the content of this report for advertisement, evidence, litigation or quote as certificate to third party" I accept that all the issued reports/results (Soft/hard) will not carry any Signature or Seal and Stamp of SAIF/CRNTS IIT Bombay.



Signature of the User

Date: 09-06-2025

Place: Shahpur (H.P.)


Signature of the In Charge/HOD/PI with College
P.I. / Guide seal / Stamp

DR. NEERAJ GUPTA
(Fulbright Scholar and Chinese Academy of Sciences Fellow)
Assistant Professor
Department of Chemistry and Chemical Science
Central University of Himachal Pradesh
Dharamshala, Himachal Pradesh (India) - 176215

Health Hazard Blue Diamond

4-Deadly
3-Extreme Danger
2-Hazardous
1-Slightly Hazardous
0-Normal Material

Fire Hazard Red Diamond

Flash Points
4-Below 73°F
3-Below 100°F
2-Above 100°F
not exceeding 200°F
1-Above 200°F
0-Will not burn



Specific Hazard White Diamond

ACID - Acid
ALK - Alkali
COR - Corrosive
OX - Oxidizer
R - Radioactive
W - Use No Water

Reactivity Yellow Diamond

4-May Detonate
3-Shock & Heat
may detonate
2-Violent Chemical
change
1-Unstable if heated
0-Stable

#refer the image below for reference for filling up Point 17: