

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: AMARVEER PRATAP RANA	Name of Guide/ PI: Dr. Jagadish Das
Email: amarveer_2421ch10@iitp.ac.in	Email: jdas@iitp.ac.in
Contact No: 9521097005	Contact No.: 94563-82693
Name of Institute/Organization: IIT Patna	
Address of Institute/Organization: IIT Patna, Bihta - 801106 (Bihar)	

1. Number of Samples: **3**

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.	AR-12	RT to 600°C	10°C/min	N ₂	TGA
2.	AR-24	RT to 600°C	10°C/min	N ₂	TGA
3.	AR-48	RT to 600°C	10°C/min	N ₂	TGA
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.

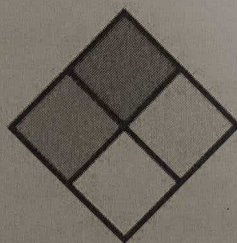
3. Does the sample contain any Halogens/ Corrosive substance? YES / **NO**
4. Hygroscopic or non-hygroscopic: **Non-hygroscopic**
5. Explosive or non-explosive at higher temp:
6. Does your sample contain any heavy metals like lead, bismuth, tin, arsenic, silver, mercury, copper, Selenium, tellurium, etc.? If yes, specify. **NO**

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: Use of nitrile glove is sufficient for handling. ✓
8. Symptoms on Exposure: Difficulty in breathing/reddening of skin/burning sensation in eyes/vomiting/giddiness/headache/unconsciousness/ ----- Others(specify) No health related problem. ✓
9. First aid measures: Wash with water ✓
10. Disposal Method of sample Non hazardous sample, so can be disposed with other solid materials. ✓
11. Label the sample/ sample container with hazard class Non-hazardous ✓
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. Please discard the sample after measurement. ✓
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.

AMARVEER PRATAP RANA

Signature of the User

Date: 17/11/25

Place: IIT Patna.

Dept. of Chemistry

17.11.25

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

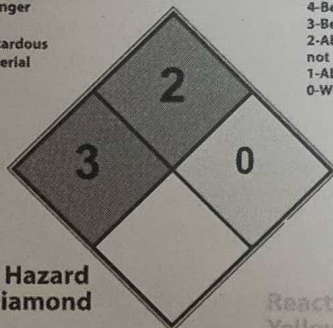
Dr. Jagadish Das
Assistant Professor
Dept. of Chemistry
Indian Institute of Technology
Bihta, Patna-801106

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
- OXY - Oxidizer
- ☢ - Radioactive
- ☞ - 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:

Covering Letter on Institute / College Original Letterhead**

Date:

To,
The Head
SAIF, IIT Bombay.

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

Dear Sir,

Mr./ Ms. Amayveer Pratap Rana (Name of the user) Ph.D Scholar (Designation) studying/employed at our Institute under the guidance of Dr. Jagadish Das (Guide Name) & Chemistry (Department) would like to use the Instrument Facility at SAIF IIT Bombay.

We have 3 (No. of Samples) for TGA (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 TGA (Instrument/facility name) facility is used in any Publication or Thesis, we agree to acknowledge the TGA (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 Dr. Jagadish Das :
Designation Asst. Professor :
Department Chemistry :

17.11.25

Dr. Jagadish Das
Assistant Professor
Dept. of Chemistry
Indian Institute of Technology
Bhubaneswar-751005

Official Seal

** 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.