

(A Government Approved Testing Laboratory)

(An ISO: 9001: 2015, 14001: 2015 & ISO 45001: 2018 & NABL Accredited Laboratory)
MoEF & CC (Ministry of Environment, Forest & Climate Change), UPPCB & HSPCB Recognized Laboratory

+91-9313611642, 8510081921, 7503031145, 8527870572, 7503031146, 9999794369

### TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Stack Emission	ST-030321-06	12/03/2021

**Issued To:** 

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

### **SAMPLING & ANALYSIS DATA**

Sample Drawn By : NTL

Sample description : Stack Emission
Sampling Time : 40 minutes
Sampling Location : Slop Boiler - 2
Sampling Plan & Procedure : IS:11255

Analysis Duration : 03/03/2021 to 08/03/2021

Stack Temperature (°C) : 145
Capacity (TPH/KVA/Kg/Hr) : 50 TPH

Fuel Consumption per hour

Type of Fuel used (HSD/FO/Coal etc) : Coal + Slop
Operating Load : Normal
Type of Stack : RCC circular

Diameter of Stack(meter) : 2.5

Height of Stack from Ground level(meter) : 100.0

Average Flow Rate (LPM) : 16

Average Velocity of Emission (m/sec) : 12.1

TEST RESULT					
S. No.	Parameter	Test Method	Results	Units	Emission Limits
1,	Particulate Matter (PM) @12% O <sub>2</sub> Correction	IS:11255(Part-1 )1985	82.15	mg/Nm³	150
2.	Sulphur dioxide (as SO2)	IS:11255(Part-2 )1985	46.20	mg/Nm³	Limit Not Specified
3.	Nitrogen Oxide (as NO <sub>X</sub> )	IS:11255(Part-7) 2005	62.16	mg/Nm³	Limit Not Specified
4.	Mercury (as Hg)	APHA – AIR	ND	mg/Nm³	
5.	VOCs	GC-FID	ND	PPM	Limit Not Specified
6.	Methane	APHA-AIR	<0.1	mg/Nm³	

#### \*ND- Not Detected

#### Notes

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Laboratory: GT-20, Sector-117, Noida Gautam Budh Nagar - 201301

Branch Office: IP-2, Haridwar, Uttrakhand

Branch Office: Gayatri Nagar. Katgodam, Haldwani, Uttrakhand



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### TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Stack Emission	ST-030321-01	12/03/2021

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

### **SAMPLING & ANALYSIS DATA**

Sample Drawn By : NTL

Sample description : Stack Emission
Sampling Time : 32 minutes
Sampling Location : DG 1 & 2
Sampling Plan & Procedure : IS:11255

Analysis Duration : 03/03/2021 to 08/03/2021

Stack Temperature (°C) : 116

Capacity (TPH/KVA/Kg/Hr) : 3 MW

Fuel Consumption per hour : 610 kg

Type of Fuel used (HSD/FO/Coal etc) : RFO/FO

Operating Load : Normal

Type of Stack : Metal circular

Diameter of Stack(meter) : 2.0
Height of Stack from Ground level(meter) : 45.0
Average Flow Rate (LPM) : 15
Average Velocity of Emission (m/sec) : 10.4

	TEST RESULT					
S. No.	Parameter	Test Method	Results	Units	Emission Limits	
1.	Particulate Matter (PM) @15% O <sub>2</sub> Correction	IS:11255(Part-1 )1985	86.23	mg/Nm³	150	
2.	Sulphur dioxide (as SO2)	IS:11255(Part-2 )1985	38.50	mg/Nm³	Limit Not Specified	
3.	Nitrogen Oxide (as NO <sub>X</sub> )	IS:11255(Part-7) 2005	70.46	ppmv	1100	

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### **TEST CERTIFICATE**

Test Report of	Report Code	Date of Issue
Stack Emission	ST-220221-02	27/02/2021

**Issued To:** 

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

### SAMPLING & ANALYSIS DATA

Sample Drawn By : NTL

Sample description : Stack Emission
Sampling Time : 40 minutes
Sampling Location : DG 3
Sampling Plan & Procedure : IS:11255

Analysis Duration : 22/02/2021 to 26/02/2021

Stack Temperature (°C) : 128
Capacity (TPH/KVA/Kg/Hr) : 4 MW
Fuel Consumption per hour : 810 kg
Type of Fuel used (HSD/FO/Coal etc) : RFO/FO
Operating Load : Normal
Type of Stack : Metal circular

Diameter of Stack(meter) : 1.5
Height of Stack from Ground level(meter) : 45.0
Average Flow Rate (LPM) : 17
Average Velocity of Emission (m/sec) : 12.2

TEST RESULT					
S. No.	Parameter	Test Method	Results	Units	Emission Limits
1.	Particulate Matter (PM) @15% O <sub>2</sub> Correction	IS:11255(Part-1 )1985	86.12	mg/Nm³	150
2.	Sulphur dioxide (as SO2)	IS:11255(Part-2 )1985	40.18	mg/Nm <sup>3</sup>	Limit Not Specified
3.	Nitrogen Oxide (as NO <sub>X</sub> )	IS:11255(Part-7) 2005	73.05	ppmv	1100

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### TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Stack Emission	ST-030321-03	12/03/2021

**Issued To:** 

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

### **SAMPLING & ANALYSIS DATA**

Sample Drawn By : NTL

Sample description : Stack Emission
Sampling Time : 30 minutes
Sampling Location : DG 4
Sampling Plan & Procedure : IS:11255

Analysis Duration : 03/03/2021 to 08/03/2021

Stack Temperature (°C) : 123
Capacity (TPH/KVA/Kg/Hr) : 4 MW
Fuel Consumption per hour : 810 kg
Type of Fuel used (HSD/FO/Coal etc) : RFO/FO
Operating Load : Normal
Type of Stack : Metal circular

Diameter of Stack(meter) : 1.5

Height of Stack from Ground level(meter) : 45.0

Average Flow Rate (LPM) : 17

Average Velocity of Emission (m/sec) : 13.2

TEST RESULT					
S. No.	Parameter	Test Method	Results	Units	Emission Limits
1.	Particulate Matter (PM) @15% O <sub>2</sub> Correction	IS:11255(Part-1 )1985	86.50	. mg/Nm³	150
2.	Sulphur dioxide (as SO2)	IS:11255(Part-2 )1985	42.18	mg/Nm³	Limit Not Specified
3.	Nitrogen Oxide (as NO <sub>X</sub> )	IS:11255(Part-7) 2005	80.22	ppmv	1100

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### TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Stack Emission	ST-030321-04	12/03/2021

**Issued To:** 

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

### **SAMPLING & ANALYSIS DATA**

Sample Drawn By :

Sample description : Stack Emission
Sampling Time : 36 minutes

Sampling Location : MEG Heater (B -110)

Sampling Plan & Procedure : IS:11255

Analysis Duration : 03/03/2021 to 08/03/2021

Stack Temperature (°C) : 131

Capacity (TPH/KVA/Kg/Hr) : --

Fuel Consumption per hour : 0.25 + 200
Type of Fuel used (HSD/FO/Coal etc) : FO + Biogas
Operating Load : Normal
Type of Stack : Metal circular

Diameter of Stack(meter) : 0.838
Height of Stack from Ground level(meter) : 30.0
Average Flow Rate (LPM) : 16

Average Velocity of Emission (m/sec) : 10.5

	TEST RESULT					
S. No.	Parameter	Test Method	Results	Units	Emission Limits	
1.	Particulate Matter (PM)	IS:11255(Part-1 )1985	78.80	mg/Nm³	150	
2.	Sulphur dioxide (as SO2)	IS:11255(Part-2 )1985	34.56	mg/Nm³	Limit Not Specified	
3.	Nitrogen Oxide (as NO <sub>X</sub> )	IS:11255(Part-7) 2005	51.20	mg/Nm³	Limit Not Specified	

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### **TEST CERTIFICATE**

Report of Report Code	Date of Issue
tack Emission ST-030321-05	12/03/2021

**Issued To:** 

M/s India Glycols Limited

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### **SAMPLING & ANALYSIS DATA**

Sample Drawn By : NTL

Sample description : Stack Emission
Sampling Time : 28 minutes

Sampling Location : MEG Heater (B -110 B)

Sampling Plan & Procedure : IS:11255

Analysis Duration : 03/03/2021 to 08/03/2021

Stack Temperature (°C)
Capacity (TPH/KVA/Kg/Hr)

Fuel Consumption per hour

Type of Fuel used (HSD/FO/Coal etc)

0.25 + 200

FO - Picco

Type of Fuel used (HSD/FO/Coal etc) : FO + Biogas
Operating Load : Normal
Type of Stack : Metal circular

Diameter of Stack(meter) : 0.850
Height of Stack from Ground level(meter) : 45.0

Average Flow Rate (LPM) : 17
Average Velocity of Emission (m/sec) : 12.2

TEST RESULT					
Parameter	Test Method	Results	Units	Emission Limits	
Particulate Matter (PM)	IS:11255(Part-1 )1985	81.23	mg/Nm³	150	
Sulphur dioxide (as SO2)	IS:11255(Part-2 )1985	37.45	mg/Nm³	Limit Not Specified	
Nitrogen Oxide (as NO <sub>X</sub> )	IS:11255(Part-7) 2005	65.80	mg/Nm³	Limit Not Specified	
	Particulate Matter (PM)  Sulphur dioxide (as SO2)	Parameter Test Method  Particulate Matter (PM) IS:11255(Part-1 )1985  Sulphur dioxide (as SO2) IS:11255(Part-2 )1985	ParameterTest MethodResultsParticulate Matter (PM)IS:11255(Part-1 )198581.23Sulphur dioxide (as SO2)IS:11255(Part-2 )198537.45	ParameterTest MethodResultsUnitsParticulate Matter (PM)IS:11255(Part-1 )198581.23mg/Nm³Sulphur dioxide (as SO2)IS:11255(Part-2 )198537.45mg/Nm³	

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### **TEST CERTIFICATE**

Test Report of	Report Code	Date of Issue
Stack Emission	ST-030321-07	12/03/2021

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

### SAMPLING & ANALYSIS DATA

Sample Drawn By NTL

Sample description Stack Emission Sampling Time 36 minutes Sampling Location TBW Boiler Sampling Plan & Procedure IS:11255

**Analysis Duration** 08/12/2020 to 15/12/2020

Stack Temperature (°C) 126 Capacity (TPH/KVA/Kg/Hr) 45 TPH

Fuel Consumption per hour

Type of Fuel used (HSD/FO/Coal etc) Coal + Slop Operating Load Normal Type of Stack RCC circular

Diameter of Stack(meter) 1.5 Height of Stack from Ground level(meter) 68.0 Average Flow Rate (LPM) 16 Average Velocity of Emission (m/sec) 11.5

TEST RESULT							
S. No.	Parameter	Test Method	Results	Units	Emission Limits		
1.	Particulate Matter (PM) @12% O <sub>2</sub> Correction	IS:11255(Part-1 )1985	80.76	mg/Nm³	150.0		
2.	Sulphur dioxide (as SO2)	IS:11255(Part-2 )1985	40.21	mg/Nm³	600.0		
3.	Nitrogen Oxide (as NO <sub>X</sub> )	IS:11255(Part-7) 2005	65.50	mg/Nm³	300.0		
4.	Mercury (as Hg)	APHA – AIR	ND	mg/Nm³			
5.	VOCs	GC-FID	ND	PPM	Limit Not Specified		
6.	Methane	APHA-AIR	<0.1	mg/Nm³			

\*ND- Not Detected

Notes:

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### TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Stack Emission	ST-030321-08	12/03/2021

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

### SAMPLING & ANALYSIS DATA

NTL Sample Drawn By

Stack Emission Sample description 36 minutes Sampling Time CVL- Boiler Sampling Location IS:11255 Sampling Plan & Procedure

08/12/2020 to 15/12/2020 **Analysis Duration** 

Stack Temperature (°C) Capacity (TPH/KVA/Kg/Hr) **20 TPH** 

Fuel Consumption per hour

Type of Fuel used (HSD/FO/Coal etc) Coal + Slop Normal Operating Load RCC circular Type of Stack

1.47 Diameter of Stack(meter) 45.0 Height of Stack from Ground level(meter) Average Flow Rate (LPM) 16 Average Velocity of Emission (m/sec) 11.5

	TEST RESULT						
S. No.	Parameter	Test Method	Results	Units	Emission Limits		
1.	Particulate Matter (PM) @12% O <sub>2</sub> Correction	IS:11255(Part-1 )1985	80.76	mg/Nm³	150.0		
2.	Sulphur dioxide (as SO2)	IS:11255(Part-2 )1985	40.21	mg/Nm³	600.0		
3.	Nitrogen Oxide (as NO <sub>x</sub> )	IS:11255(Part-7) 2005	65.50	mg/Nm³	300.0		
4.	Mercury (as Hg)	APHA – AIR	ND	mg/Nm³			
5.	VOCs	GC-FID	ND	PPM	Limit Not Specified		
6.	Methane	APHA-AIR	<0.1	mg/Nm³			

#### \*ND- Not Detected

#### Notes:

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AUTHOR

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### TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Stack Emission	ST-060321-03	15/03/2021

Issued To: M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

### **SAMPLING & ANALYSIS DATA**

Sample Drawn By : NTL

Sample description : Stack Emission
Sampling Time : 30 minutes
Sampling Location : Slop Boiler - 01
Sampling Plan & Procedure : IS:11255

Analysis Duration : 08/03/2021 to 12/03/2021

Stack Temperature (°C) Capacity (TPH/KVA/Kg/Hr) 50 TPH Type of Fuel used Coal + Slop Operating Load Normal Type of Stack RCC Diameter of Stack(meter) 2.5 Height of Stack from Ground level (meter) 100 Average Flow Rate (LPM) 26.0 Average Velocity of Emission (m/sec) 11.0

TEST RESULT						
S. No.	Parameter	Test Method	Results	Units	Emission limits (CPCB/MoEF)	
1.	Particulate Matter (PM) (corrected to be 12% CO <sub>2</sub> )	IS:11255(Part-1)	44.89	mg/Nm³	50	
2.	Sulphur dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	62.35	mg/Nm³	600	
3.	Nitrogen dioxide (NO <sub>2</sub> )	IS:11255(Part-7)	78.28	mg/Nm <sup>3</sup>	300	
4.	Mercury (as Hg)	APHA-AIR	< 0.01	mg/l	0.03	

### Notes:

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Fuel used

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### **TEST CERTIFICATE**

Test Report of	Report Code	Date of Issue
Stack Emission	ST-060321-02	15/03/2021

Issued To: M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

#### **SAMPLING & ANALYSIS DATA**

Sample Drawn By NTL

Sample description Stack Emission Sampling Time 35 minutes Sampling Location IJT 80 T Boiler Sampling Plan & Procedure IS:11255

**Analysis Duration** 08/03/2021 to 12/03/2021

Stack Temperature (°C) Capacity (TPH/KVA/Kg/Hr) 80 TPH Type of Fuel used Coal Normal Operating Load Type of Stack Metal circular

Diameter of Stack(meter) 1.5 80 Height of Stack from Ground level (meter) 15.8 Average Flow Rate (LPM) Average Velocity of Emission (m/sec) 11.1

	TEST RESULT						
S. No.	Parameter	Test Method	Results	Units	Emission limits (CPCB/MoEF)		
1.	Particulate Matter (PM) (corrected to be 12% CO <sub>2</sub> )	IS:11255(Part-1)	42.16	mg/Nm³	50		
2.	Sulphur dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	52.23	mg/Nm³	600		
3.	Nitrogen dioxide (NO <sub>2</sub> )	IS:11255(Part-7)	67.80	mg/Nm³	300		
4.	Mercury (as Hg)	APHA-AIR	<0.01	mg/l	0.03		

### Notes: Load

Fuel used

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### TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Stack Emission	ST-060321-01	15/03/2021

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#### **SAMPLING & ANALYSIS DATA**

Sample Drawn By NTL

Sample description Stack Emission 30 minutes Sampling Time CVL 30 T Boiler Sampling Location

IS:11255 Sampling Plan & Procedure

Analysis Duration 08/03/2021to12/03/2021

Stack Temperature (°C) 106 Capacity (TPH/KVA/Kg/Hr) 30 TPH Coal Type of Fuel used Operating Load Normal Metal circular Type of Stack

3.0 Diameter of Stack(meter) Height of Stack from Ground level(meter) 45.0 Average Flow Rate (LPM) 16.0 Average Velocity of Emission (m/sec) 11.5

	TEST RESULT						
S. No.	Parameter	Test Method	Results	Units	Emission limits (CPCB/MoEF)		
1.	Particulate Matter (PM) (corrected to be 12% CO <sub>2</sub> )	IS:11255(Part-1)	45.20	mg/Nm³	50		
2.	Sulphur dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	68.83	mg/Nm³	600		
3.	Nitrogen dioxide (NO <sub>2</sub> )	IS:11255(Part-7)	85.12	mg/Nm³	300		
4.	Mercury (as Hg)	APHA-AIR	<0.01	mg/l	0.03		

### Notes:

1. The results given above are related to the tested sample, as received & mentioned parameters. The customer asked for the above tests only.

2. Responsibility of the Laboratory is limited to the invoiced amount only.

3. This test report will not be generated again, either wholly or in part, without prior written permission of the laboratory.

4. This test report will not be used for any publicity/legal purpose.

5. The test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer.

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Laboratory: GT-20, Sector-117, Noida Gautam Budh Nagar - 201301

Branch Office: IP-2, Haridwar, Uttrakhand

Branch Office: Gayatri Nagar. Katgodam, Haldwani, Uttrakhand



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### TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Stack Emission	ST-060321-04	15/03/2021

Issued To: M/s India Glycols Limited

A-1,Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

### SAMPLING & ANALYSIS DATA

Sample Drawn By NTL

Sample description Stack Emission Sampling Time 40 minutes

Sampling Location MEG Heater (B-110 A)

Sampling Plan & Procedure IS:11255

**Analysis Duration** 08/03/2021 to 12/03/2021

Stack Temperature (°C)

Capacity (TPH/KVA/Kg/Hr)

Fuel Consumption per hour 0.25 + 200Type of Fuel used FO + Biogas Operating Load Normal Type of Stack Metal circular

Diameter of Stack(meter) 0.850 Height of Stack from Ground level (meter) 45 Average Flow Rate (LPM) 16.2 Average Velocity of Emission (m/sec) 11.5

	TEST RESULT							
S. No.	Parameter	Test Method	Results	Units	Emission limits			
1.	Particulate Matter (PM)	IS:11255(Part-1)	68.56	mg/Nm³	50			
2.	Sulphur dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	35.12	mg/Nm³	Limit not specified			
3.	Nitrogen dioxide (NO <sub>2</sub> )	IS:11255(Part-7)	57.26	mg/Nm³	Limit not specified			

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### Notes: motir

1. The results given above are related to the tested sample, as received & mentioned parameters. The customer asked for the above tests only

Responsibility of the Laboratory is limited to the invoiced amount only.

3. This test report will not be generated again, either wholly or in part, without prior written permission of the laboratory.

This test report will not be used for any publicity/legal purpose.

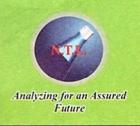
5. The test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer.

AUTHO

Laboratory: GT-20, Sector-117, Noida Gautam Budh Nagar - 201301

Branch Office: IP-2, Haridwar, Uttrakhand

Branch Office: Gayatri Nagar. Katgodam, Haldwani, Uttrakhand



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### **TEST CERTIFICATE**

Test Report of	Report Code	Date of Issue
Scrubber Vent Emission	ST-160221-03	18/02/2021

**Issued To:** 

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

#### **SAMPLING & ANALYSIS DATA**

Sample drawn on : 15/02/2021

Sample Drawn By : NTL

Sample description:Scrubber ventSampling Time:30 minutesSampling Plan & Procedure:SOP/SE/09

Analysis Duration : 16/02/2021 to 18/02/2021

Stack Temperature (°C) : 43

Source of Emission : Scrubber

Location : HCL Scrubber – Bio EO Plant

Operating Load : Normal
Attached APCS : Scrubber Vent

Attached APCS : Scrubber Height of Stack from ground level(feet) : 74.0

Average Velocity of Flue Emission (m/s) : 8.3

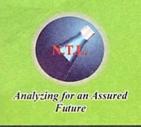
	TEST RESULTS						
S.N.	Parameter	Test Method	Results	Units	Specification/ Limit (As Per CPCB)		
1.	Acid Mist (HCl)	Vol. Method	2.1	mg/Nm3	35		
2.	VOC	APHA-AIR	BDL	mg/Nm3	-		
3.	Methane	APHA-AIR	ND	mg/Nm3	-		
4.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	BDL	mg/Nm3	-		

#### **Notes:**

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### **TEST CERTIFICATE**

Test Report of	Report Code	Date of Issue
Scrubber Vent Emission	ST-160221-04	18/02/2021

**Issued To:** 

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

#### **SAMPLING & ANALYSIS DATA**

Sample drawn on : 15/02/2021

Sample Drawn By : NTL

Sample description : Scrubber vent
Sampling Time : 30 minutes
Sampling Plan & Procedure : SOP/SE/09

Analysis Duration : 16/02/2021 to 18/02/2021

Stack Temperature (°C) : 43

Source of Emission : Scrubber

Location : SO<sub>2</sub> Scrubber – Bio EO Plant

Operating Load : Normal

Attached APCS : Scrubber Vent

Height of Stack from ground level(feet) : 74.0 Average Velocity of Flue Emission (m/s) : 8.3

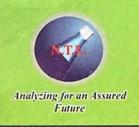
	TEST RESULT					
S.N.	Parameter	Test Method	Results	Units		
1.	Acid Mist (HCl)	Vol. Method	1.1	mg/Nm3		
2.	VOC	APHA-AIR	BDL	mg/Nm3		
3.	Methane	APHA-AIR	ND	mg/Nm3		
4.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	1.3	mg/Nm3		

#### **Notes:**

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### **TEST CERTIFICATE**

Test Report of	Report Code	Date of Issue
<b>Scrubber Vent Emission</b>	ST-160221-05	18/02/2021

**Issued To:** 

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

#### **SAMPLING & ANALYSIS DATA**

Sample drawn on : 15/02/2021

Sample Drawn By : NTL

Sample description:Scrubber ventSampling Time:30 minutesSampling Plan & Procedure:SOP/SE/09

Analysis Duration : 16/02/2021 to 18/02/2021

Stack Temperature (°C) : 43

Source of Emission : Scrubber

Location : EO Scrubber – Bio EO Plant

Operating Load : Normal

Attached APCS : Scrubber Vent

Height of Stack from ground level(feet) : 74.0 Average Velocity of Flue Emission (m/s) : 8.3

	TEST RESULTS						
S.N.	Parameter	Test Method	Results	Units	Specification/ Limit (As Per CPCB)		
1.	Acid Mist (HCl)	Vol. Method	0.6	mg/Nm3	35		
2.	VOC	APHA-AIR	BDL	mg/Nm3	-		
3.	Methane	APHA-AIR	ND	mg/Nm3	-		
4.	Sulphur Dioxide (SO <sub>2</sub> )	IS:11255(Part-2)	BDL	mg/Nm3	-		

### **Notes:**

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### **TEST CERTIFICATE**

Test Report of	Report Code	Date of Issue
Ambient Air Quality Analysis	AAQ-060320-01	15/03/2021

**Issued To:** 

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttarakhand)- 244713

### **SAMPLING & ANALYSIS DATA**

Sample Drawn By : NTL
Date of Sample Received : 06/03/2021
Sample Description : Ambient Air

Sampling Location : Bio Gas Plant – Behind Laboratory

Sampling Plan & Procedure : SOP-AAQ/08
Analysis Duration : 06/03/2021 to 12/03/2021

Analysis Duration : 06/03/202 Average Flow Rate of SPM (m³/min.) : 1.14

Average Flow Rate of Gases (lpm) : 1.0
Sampling Instrument Used : Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

Weather Condition : Cle

		TEST RESULT			
S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	82.22	μg/m³	100.0
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	45.16	μg /m³	60.0
3.	Sulphur Dioxide	IS:5182 Part-II	14.2	μg/m³	80.0
4.	Nitrogen Dioxide	IS:5182 Part-VI	23.8	$\mu g/m^3$	80
5.	Carbon Monoxide	IS:5182 Part-X	< 1.15	mg/m <sup>3</sup>	4.0
6.	Lead(as Pb)	IS:5182 Part-XXII	<0.10	$\mu g/m^3$	1.0
7.	Nickel (as Ni)	APHA-AIR420	<20.00	ng/m³	20.0
8.	Arsenic ( as As)	APHA-AIR302	<5.00	ng/m³	6.0
9.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	<10.0	$\mu g/m^3$	180.0
10.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	< 20.00	$\mu g/m^3$	400.0
11.	Benzene (as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	< 1.00	μg/m³	5.0
12.	Benzo(α) Pyrine- Particulate phase only	IS:5182 Part-XI	<1.00	ng/m³	1.0
13.	Methane (as CH□)	APHA-AIR	0.026	PPM	9)/
14.	Volatile Organic Compounds (VOCs)	IS:5182 Part-XI	0.068	PPM	

#### Notes: -

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AUTHORIZED SIGNATORY

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Branch Office: IP-2, Haridwar, Uttrakhand

Branch Office: Gayatri Nagar. Katgodam, Haldwani, Uttrakhand



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### **TEST CERTIFICATE**

Test Report of	Report Code	Date of Issue
Ambient Air Quality Analysis	AAQ-060320-02	15/03/2021

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

#### **SAMPLING & ANALYSIS DATA**

Sample Drawn By
Date of Sample Received
Sample Description

Sample Description
Sampling Location

Sampling Plan & Procedure

Analysis Duration

Average Flow Rate of SPM (m³/min.)
Average Flow Rate of Gases (lpm)
Sampling Instrument Lload

Sampling Instrument Used

Weather Condition

: NTL

05/09/2020 Ambient Air

Coal Yard near Slop 2 Control Room

SOP-AAQ/08 06/03/2021 to 12/03/2021

1.15

1.15

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

Clear

		TEST RESULT			
S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	92.23	μg/m³	100.0
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	48.86	μg/m³	60.0
3.	Sulphur Dioxide	IS:5182 Part-II	12.55	$\mu g/m^3$	80.0
4.	Nitrogen Dioxide	IS:5182 Part-VI	26.70	μg/m³	80
5.	Carbon Monoxide	IS:5182 Part-X	< 1.15	mg/m³	4.0
6.	Lead(as Pb)	IS:5182 Part-XXII	<0.10	μg/m³	1.0
7.	Nickel (as Ni)	APHA-AIR420	<20.00	ng/m³	20.0
8.	Arsenic ( as As)	APHA-AIR302	<5.00	ng/m³	6.0
9.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	<10.0	μg/m³	180.0
10.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	< 20.00	μg/m³	400.0
11.	Benzene (as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	< 1.00	μg/m³	5.0
12.	Benzo(a) Pyrine- Particulate phase only	IS:5182 Part-XI	< 1.00	ng/m³	1.0
13.	Methane (as CH□)	APHA-AIR	ND	PPM	
14.	Volatile Organic Compounds (VOCs)	IS:5182 Part-XI	ND	PPM	

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Branch Office: IP-2, Haridwar, Uttrakhand

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### TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Ambient Air Quality Analysis	AAQ-060320-03	15/03/2021

**Issued To:** 

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

#### **SAMPLING & ANALYSIS DATA**

Sample Drawn By : NTL

Date of Sample Received : 05/09/2020

Sample Description : Ambient Air

Sampling Location : Fire Station

Sampling Plan & Procedure : SOP-AAQ/08

Analysis Duration : 06/03/2021 to 12/03/2021 Average Flow Rate of SPM (m³/min.) : 1.09

Average Flow Rate of SPM (m /min.) : 1.0

Average Flow Rate of Gases (lpm) : 1.0

Sampling Instrument Used : Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

Weather Condition : Clea

		TEST RESULT			
S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	74.12	μg/m³	100.0
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	38.45	μg/m³	60.0
3.	Sulphur Dioxide	IS:5182 Part-II	8.68	μg/m³	80.0
4.	Nitrogen Dioxide	IS:5182 Part-VI	14.21	μg/m³	80
5.	Carbon Monoxide	IS:5182 Part-X	< 1.15	mg/m³	4.0
6.	Lead(as Pb)	IS:5182 Part-XXII	<0.10	μg/m³	1.0
7.	Nickel (as Ni)	APHA-AIR420	<20.00	ng/m³	20.0
8.	Arsenic ( as As)	APHA-AIR302	<5.00	ng/m³	6.0
9.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	<10.0	μg/m³	180.0
10.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	< 20.00	$\mu g/m^3$	400.0
11.	Benzene (as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	< 1.00	$\mu g/m^3$	5.0
12.	Benzo(a) Pyrine- Particulate phase only	IS:5182 Part-XI	< 1.00	ng/m³	1.0
13.	Methane (as CH□)	APHA-AIR	ND	PPM	-
14.	Volatile Organic Compounds (VOCs)	IS:5182 Part-XI	ND	PPM	

#### Notes: -

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Laboratory: GT-20, Sector-117, Noida Gautam Budh Nagar - 201301

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### TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Ambient Air Quality Analysis	AAQ-060320-04	15/03/2021

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

### SAMPLING & ANALYSIS DATA

Sample Drawn By Date of Sample Received

Sample Description

Sampling Location Sampling Plan & Procedure

**Analysis Duration** 

Average Flow Rate of SPM (m<sup>3</sup>/min.) Average Flow Rate of Gases (lpm)

Sampling Instrument Used

Weather Condition

NTL

05/09/2020

Ambient Air

**IGL Colony Near STP** SOP-AAQ/08

06/03/2021 to 12/03/2021

1.07

Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate

Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

		TEST RESULT			
S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	75.60	μg/m³	100.0
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	38.26	μg/m³	60.0
3.	Sulphur Dioxide	IS:5182 Part-II	8.05	μg/m³	80.0
4.	Nitrogen Dioxide	IS:5182 Part-VI	15.22	$\mu g/m^3$	80
5.	Carbon Monoxide	IS:5182 Part-X	< 1.15	mg/m <sup>3</sup>	4.0
6.	Lead(as Pb)	IS:5182 Part-XXII	<0.10	μg/m³	1.0
7.	Nickel (as Ni)	APHA-AIR420	<20.00	ng/m³	20.0
8.	Arsenic ( as As)	APHA-AIR302	<5.00	ng/m³	6.0
9.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	<10.0	μg/m³	180.0
10.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	< 20.00	μg/m³	400.0
11.	Benzene (as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	< 1.00	μg/m³	5.0
12.	Benzo(a) Pyrine- Particulate phase only	IS:5182 Part-XI	< 1.00	ng/m³	1.0
13.	Methane (as CH□)	APHA-AIR	ND	PPM	
14.	Volatile Organic Compounds (VOCs)	IS:5182 Part-XI	ND	PPM	

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AUTHORIZED SIGNATORY

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Branch Office: IP-2, Haridwar, Uttrakhand

Branch Office: Gayatri Nagar. Katgodam, Haldwani, Uttrakhand



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### **TEST CERTIFICATE**

Test Report of	Report Code	Date of Issue
Ambient Air Quality Analysis	AAQ-060320-05	15/03/2021

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

#### **SAMPLING & ANALYSIS DATA**

Sample Drawn By

ed

NTL

Date of Sample Received Sample Description

05/09/2020 Ambient Air

Sampling Plan & Procedure

Main Gate Near Security Office

Sampling Plan & Procedure Analysis Duration SOP-AAQ/08 06/03/2021 to 12/03/2021

Average Flow Rate of SPM (m³/min.) Average Flow Rate of Gases (lpm) : 1.06

Sampling Instrument Used

: 1.06

: Respirable Dust Sampler (PM<sub>10</sub>) Fine Particulate Sampler (PM<sub>2.5</sub>) With Gaseous Attachment

: Clear

Weather Condition

		TEST RESULT			
S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act
1.	Particulate Matter (PM <sub>10</sub> )	IS:5182 Part-XXIII	85.36	μg/m³	100.0
2.	Particulate Matter (PM <sub>2.5</sub> )	CPCB Volume – 1 / Gravimetric	42.50	μg/m³	60.0
3.	Sulphur Dioxide	IS:5182 Part-II	8.60	μg/m³	80.0
4.	Nitrogen Dioxide	IS:5182 Part-VI	16.78	μg/m³	80
5.	Carbon Monoxide	IS:5182 Part-X	< 1.15	mg/m³	4.0
6.	Lead(as Pb)	IS:5182 Part-XXII	<0.10	μg/m³	1.0
7.	Nickel (as Ni)	APHA-AIR420	<20.00	ng/m³	20.0
8.	Arsenic (as As)	APHA-AIR302	<5.00	ng/m³	6.0
9.	Ozone (as O <sub>3</sub> )	IS:5182 Part-IX	<10.0	μg/m³	180.0
10.	Ammonia (as NH <sub>3</sub> )	APHA-AIR402	< 20.00	μg/m³	400.0
11.	Benzene (as C <sub>6</sub> H <sub>6</sub> )	IS:5182 Part-XI	< 1.00	$\mu g/m^3$	5.0
12.	Benzo(α) Pyrine- Particulate phase only	IS:5182 Part-XI	< 1.00	ng/m³	1.0
13.	Methane (as CH□)	APHA-AIR	ND	PPM	
14.	Volatile Organic Compounds (VOCs)	IS:5182 Part-XI	ND	PPM	

#### Notes: -

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3. This test report will not be generated again, either wholly or in part, without prior written permission of the laborators.

4. This test report will not be used for any publicity/legal purpose.

5. The test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer

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Laboratory: GT-20, Sector-117, Noida Gautam Budh Nagar - 201301

Branch Office: IP-2, Haridwar, Uttrakhand

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### TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Work Zone Air Quality Analysis	WZ-060321-014	15/03/2021

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

### SAMPLING & ANALYSIS DATA

Sample Drawn On Sample Drawn By

: 05/03/2021 : NTL

Sampling Location

: Ethoxylate Plant

	Test Results				
S.No.	Parameter	Test Method	Results	Unit	Permission Limit
1.	Suspended Particulate matter (SPM)	IS:5182 (P-4)	0.098	mg/m³	15 as per OSHA
2.	Sulphur dioxide (SO <sub>2</sub> )	IS:5182 (P-2)	0.016	mg/m <sup>3</sup>	5.0 as per factories act, 1948
3.	Nitrogen dioxide (NO <sub>2</sub> )	IS:5182 (P-6)	0.017	mg/m <sup>3</sup>	6.0 as per factories act, 1948
4.	Lead (as Pb)	IS:5182 (P-22)	<0.1	mg/m <sup>3</sup>	0.15 as per factories act, 1948

1.84

mg/m3

OSHA-Occupational Safety & Health Administration.

Hydrogen Chloride (as HCL)

#### Notes:

1. The results given above are related to the tested sample, as received & mentioned parameters. The customer asked for the above tests only.

SOP-S/99/31

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7.0 as per factories act, 1948

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### TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Work Zone Air Quality Analysis	WZ-060321-012	15/03/2021

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

#### SAMPLING & ANALYSIS DATA

Sample Drawn On

: 05/03/2021

Sample Drawn By

NTL

Sampling Location

Chemical Plant

	Test Results				
S.No.	Parameter	Test Method	Results	Unit	Permission Limit
1.	Suspended Particulate matter (SPM)	IS:5182 (P-4)	0.108	mg/m³	15 as per OSHA
2.	Sulphur dioxide (SO <sub>2</sub> )	IS:5182 (P-2)	0.019	mg/m³	5.0 as per factories act, 1948
3.	Nitrogen dioxide (NO <sub>2</sub> )	IS:5182 (P-6)	0.023	mg/m³	6.0 as per factories act, 1948
4.	Lead (as Pb)	IS:5182 (P-22)	<0.1	mg/m³	0.15 as per factories act, 1948
5.	Hydrogen Chloride (as HCL)	SOP-S/99/31	2.17	mg/m³	7.0 as per factories act, 1948

OSHA-Occupational Safety & Health Administration.

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Branch Office: IP-2, Haridwar, Uttrakhand

Branch Office : Gayatri Nagar. Katgodam, Haldwani, Uttrakhand



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### TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Work Zone Air Quality Analysis	WZ-060321-013	15/03/2021

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

### SAMPLING & ANALYSIS DATA

Sample Drawn On

05/03/2021

Sample Drawn By Sampling Location : NTL

: Formulation Plant

Tes	t Res	ults
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S.No.	Parameter	Test Method	Results	Unit	Permission Limit
1.	Suspended Particulate matter (SPM)	IS:5182 (P-4)	0.102	mg/m³	15 as per OSHA
2.	Sulphur dioxide (SO <sub>2</sub> )	IS:5182 (P-2)	0.015	mg/m³	5.0 as per factories act, 1948
3.	Nitrogen dioxide (NO <sub>2</sub> )	IS:5182 (P-6)	0.018	mg/m³	6.0 as per factories act, 1948
4.	Lead (as Pb)	IS:5182 (P-22)	<0.1	mg/m³	0.15 as per factories act, 1948
5.	Hydrogen Chloride (as HCL)	SOP-S/99/31	1.25	mg/m³	7.0 as per factories act, 1948

OSHA-Occupational Safety & Health Administration.

### Notes:

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Branch Office: IP-2, Haridwar, Uttrakhand

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### TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Waste Water	WW-060321-020	15/03/2021

Issued To: M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

### SAMPLING & ANALYSIS DATA

Sample Drawn On 06/03/2021

Sample Drawn By NTL

Sample Description **ETP Outlet** Sample Received On 08/03/2021

Sample Quantity/Packing detail 2lt/Plastic Cane

**Analysis Duration** 08/03/2021 to 15/03/2021

#### TEST RESULTS

S.No	Parameter	Test Method	Results	Units	Limits as per E(P)Rule
1.	pH	USEPA-150.1	7.23		5.0 - 9.0
2.	Chemical Oxygen demand(as O <sub>2</sub> )	USEPA-410.4	88.5	mg/l	250.0
3.	Biological Oxygen demand(as O <sub>2</sub> )	USEPA-405.1	14.0	mg/l	100.0
4.	Oil & grease	USEPA-1664	<1.0	mg/l	10.0
5.	Phenolic Compound (C <sub>6</sub> H5OH)	APHA 5530 B C &D	0.23	mg/l	5.0
6.	Nitrate (as NO <sub>3</sub> )	IS: 3025 (P- 34)	3.72	mg/l	10
7.	Cyanide (as CN)	IS-3025(P-27)	BDL	mg/l	0.2
8.	Sulphide(as H <sub>2</sub> S)	IS-3025 (P-29)	BDL	mg/l	2.0
	. D.C.	Metal			
10.	Total Chromium (as Cr)	USEPA-6010c	BDL	mg/l	1.0
11.	Nickel (as Ni)	USEPA-6010c	BDL	mg/l	2.0
12.	Copper (as Cu)	USEPA-6010c	0.22	mg/l	2.0
13.	Zinc (as Zn)	USEPA-6010c	0.95	mg/l	5.0
14.	Total Arsenic (as As)	USEPA-200.7	BDL	mg/l	0.2
15.	Lead (as Pb)	USEPA-6010c	BDL	mg/l	0.1
16.	Hexavalent Chromium (as Cr <sup>+6</sup> )	USEPA-218.6	BDL	mg/l	0.05
17.	Mercury (as Hg)	USEPA-6010c	BDL	mg/l	0.01
18.	Silver (as Ag)	USEPA-6010c	BDL	mg/l	No Limit Specifie
19.	Bio Assay Test (%Survival of Fish 96 hrs%)	IS-6582:1972(R.A003)	100	mg/l	Should be 90 % Survival

1. The results given above are related to the tested sample, as received & mentioned parameters. The cus.

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3. This perfection will not be generated again, either wholly or in part, without prior written permission of

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Branch Office: Gayatri Nagar. Katgodam, Haldwani, Uttrakhand



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### TEST CERTIFICATE

Test Report of		
1 est Report of	Report Code	Date of Issue
Ambient Noise	N-060321-01	
	11 000321-01	15/03/2021

**Issued To:** 

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

### **SAMPLING & ANALYSIS DATA**

Sample Drawn By Sample Received On Sample description

Sampling Location

NTL

06/03/2021 Ambient Noise

Bio Gas Plant

			TEST	RESULT		
S. No	Test Parameters	Results	Units	Requirement (as per d	CPCB Guideline	es Limits in
1.	EQUIVALENT NOISE LEVEL (6.0 AM TO 10.0 PM)	70.8	dB(A)	Category of Area/ Zone Industrial Area	Day Time	Night Time
2.	EQUIVALENT NOISE LEVEL	52.6	dB(A)	Commercial Area  Residential Area	65	55
	(10.0 PM TO 6.0 AM)			Silence Zone	50	40

### Notes:

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- 5. The test samples will be disposed off after two weeks from the date of issue of test report, unless specified by the customer.

AUTHOR

Laboratory: GT-20, Sector-117, Noida Gautam Budh Nagar - 201301 Branch Office: IP-2, Haridwar, Uttrakhand

Branch Office: Gayatri Nagar. Katgodam, Haldwani, Uttrakhand



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### **TEST CERTIFICATE**

Test Report of	Report Code	Date of Issue
Ambient Noise	N-060321-02	15/03/2021

**Issued To:** 

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

### **SAMPLING & ANALYSIS DATA**

Sample Drawn By
Sample Received On
Sample description

Sampling Location

: NTL

06/03/2021 Ambient Noise

: Coal Yard

			TEST	RESULT		
S. No	Test Parameters	Results	Units	Requirement (as per d	CPCB Guideline	s Limits in
	EQUIVALENT NOISE LEVEL		dB(A)	Category of Area/ Zone	Day Time	Night Time
1.	(6.0 AM TO 10.0 PM)	66.1		Industrial Area	75	70
	EQUIVALENT NOISE			Commercial Area	65	55
2.	LEVEL	48.8	dB(A)	Residential Area	55	45
	(10.0 PM TO 6.0 AM)	1		Silence Zone	50	40

### Notes:

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### TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Ambient Noise	N-060321-03	15/03/2021

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

### SAMPLING & ANALYSIS DATA

Sample Drawn By

NTL 06/03/2021

Sample Received On Sample description

**Ambient Noise** 

Sampling Location

Fire Station

	TEST RESULT							
<u>S. No</u>	Test Parameters	Results	Units	Requirement (as per CPCB Guidelin		es Limits in		
1.	EQUIVALENT NOISE LEVEL (6.0 AM TO 10.0 PM)	63.5	dB(A)	Category of Area/Zone Industrial Area	Day Time	Night Time		
2.	EQUIVALENT NOISE LEVEL	58.8	dB(A)	Commercial Area  Residential Area	65 55	55 45		
	(10.0 PM TO 6.0 AM)			Silence Zone	50	40		

### Notes:

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Branch Office: IP-2, Haridwar, Uttrakhand

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### **TEST CERTIFICATE**

Test Report of	Report Code	Date of Issue
Ambient Noise	N-060321-04	15/03/2021

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

### **SAMPLING & ANALYSIS DATA**

Sample Drawn By

Sample Received On Sample description Sampling Location : NTL

06/03/2021

: Ambient Noise

: IGL Colony

			TEST	RESULT		)
<u>S. No</u>	Test Parameters	Results	Units	Requirement (as per (	CPCB Guideline	es Limits in
	EQUIVALENT NOISE LEVEL		dB(A)	Category of Area/ Zone	Day Time	Night Time
1.	(6.0 AM TO 10.0 PM)	61.3		Industrial Area	75	70
	EQUIVALENT NOISE			Commercial Area	65	55
2.	LEVEL	50.2	dB(A)	Residential Area	55	45
	(10.0 PM TO 6.0 AM)	1		Silence Zone	50	40

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### TEST CERTIFICATE

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

### **SAMPLING & ANALYSIS DATA**

Sample Drawn By

NTL

Sample Received On

: 06/03/2021

Sample description
Sampling Location

: Ambient Noise

: Main Gate Near Security Office

	1		TEST	RESULT		
<u>S. No</u>	Test Parameters	Results	<u>Units</u>	Requirement (as per C	(A) Leq	s Limits in
1.	EQUIVALENT NOISE LEVEL (6.0 AM TO 10.0 PM)	63.5	dB(A)	Category of Area/Zone Industrial Area	Day Time	Night Time
2.	EQUIVALENT NOISE LEVEL (10.0 PM TO 6.0 AM)	46.6	dB(A)	Commercial Area  Residential Area  Silence Zone	65 55 50	55 45 40

#### Notes:

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### TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Water Sample	W-060321-018	15/03/2021

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttarakhand)- 244713

### **SAMPLING & ANALYSIS DATA**

Sample Drawn By
Sample Received On
Sample Quantity

Sample packing Details

Analysis Duration

Sample Description
Sampling Location
Required Test Standard

: NTL

: 06/03/2021

2.0 lit

In Sealed Plastic Bottle & Glass Bottle

06/03/2021 to 14/03/2021

: Bore well Water : Chemical Plant

: IS 10500: 2012

#### MICROBIOLOGICAL REQUIREMENT

RESULTS								
S.No.	Parameter	Test Method	Results	Required as per IS- 10500:2012				
1.	Escherichia coli	IS-1622	Absent	Absent/100ml				
2.	Coliform Bacteria	IS-1622	Absent	Absent/100ml				

### ORGANOLEPTIC & PHYSICAL PARAMETERS

S.No.	Parameter	Test Method	Result	Unit	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Colour	IS-3025(P-04)	<1.00	Hazen Unit	5	15
2.	Odour	IS-3025(P-05)	Agreeable		Agreeable	Agreeable
3.	Taste	IS-3025(P-07 & 08)	Agreeable	TO.	Agreeable	rigiceanic
4.	Turbidity	IS-3025(P-10)	<1.00	NTU	1	
5.	pH value	IS-3025(P-11)	7.33		6.5 - 8.5	
6.	Total dissolve solid (TDS)	IS-3025(P-16)	315	mg/l	500	2000

S.No.	Parameter Parameter	Test method	Result	Unit	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Aluminium (as Al)	IS: 3025 (P- 55)	<0.01	mg/l	0.03	0.2
2.	Total Ammonia	IS: 3025 (P- 34)	< 0.10	mg/l	0.5	No Relaxation
3.	Anionic Detergents (as MBAS)	Annex K of IS- 13428	<0.10	mg/l	0.2	1.0
4.	Barium (as Ba)	IS: 15302	<0.10	mg/l	0.7	No Relaxation
5.	Boron (as B)	IS: 3025 (P- 57)	<0.10	mg/l	0.5	
6.	Calcium (as Ca)	IS: 3025 (P-40)	38.60	mg/l	75	1.0
7.	Chloramines (as Cl <sub>2</sub> )	IS: 3025 (P- 26)	<1.00	mg/l	4.0	
8.	Chloride (as Cl)	IS: 3025 (P- 32)	18.20	mg/l	250	No Relaxation 1000
9.	Copper (as Cu)	IS: 3025 (P-42)	<0.05	mg/l	0.05	1000

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Branch Office: Gayatri Nagar. Katgodam, Haldwani, Uttrakhand



(A Government Approved Testing Laboratory)

(An ISO: 9001: 2015, 14001: 2015 & ISO 45001: 2018 & NABL Accredited Laboratory)

MoEF & CC (Ministry of Environment, Forest & Climate Change), UPPCB & HSPCB Recognized Laboratory

+91-9313611642, 8510081921, 7503031145, 8527870572, 7503031146, 9999794369

### **TEST CERTIFICATE**

10.	Fluoride (as F)	IS: 3025 (P-60)	<1.0	mg/l	1.0	1.5
11.	Free Residual Chlorine	IS: 3025 (P-26)	BDL	mg/l	0.2	1.0
12.	Iron (as Fe)	IS: 3025(P-53)	0.062	mg/l	1.0	No Relaxation
13.	Magnesium (as mg)	IS: 3025 (P-46)	21.50	mg/l	30	100
14.	Manganese (as Mn)	IS: 3025 (P-59)	<0.10	mg/l	0.1	0.3
15.	Mineral Oil	Clause 6 of IS: 3025	< 0.50	mg/l	0.5	No Relaxation
16.	Nitrate (as NO <sub>3</sub> )	IS: 3025 (P- 34)	2.48	mg/l	45	No Relaxation
17.	Selenium (as Se)	IS: 3025 (P- 56)	< 0.01	mg/l	0.01	No Relaxation
18.	Silver (as Ag)	Annex J IS: 13428	<0.05	mg/l	0.1	No Relaxation
19.	Sulphate (as SO <sub>4</sub> )	IS: 3025 (P- 24)	18.2	mg/l	200	400
20.	Sulphide(as H <sub>2</sub> S)	IS-3025 (P-29)	< 0.05	mg/l	0.05	No Relaxation
21.	Alkalinity (as Ca CO <sub>3</sub> )	IS: 3025 (P- 23)	196.0	mg/l	200	600
22.	Total Hardness (as CaCO <sub>3</sub> )	IS: 3025 (P- 21)	210.0	mg/l	200	600
23.	Zinc (as Zn)	IS: 3025 (P-49)	< 0.05	mg/l	6.0	15

Parameters Concerning Toxic Substances:

S.No.	Parameter	Test method	Result	Unit	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Cadmium (as Cd)	IS-3025(P-41)	<0.001	mg/l	0.003	No Relaxation
2.	Cyanide (as CN)	IS-3025(P-27)	<0.01	mg/l	0.05	No Relaxation
3.	Lead (as Pb)	IS-3025(P-47)	<0.01	mg/l	0.01	No Relaxation
4.	Mercury (as Hg)	IS-3025(P-48)	< 0.001	mg/l	0.001	No Relaxation
5.	Molybdenum (Mo)	IS-3025(P-2)	<0.05	mg/l	0.07	No Relaxation
6.	Nickel (as Ni)	IS-3025(P-54)	<0.01	mg/l	0.02	No Relaxation
7.	Poly nuclear Aromatic Hydro Carbons	APHA 6440	<0.0001	mg/l	0.0001	No Relaxation
8	Poly chlorinated biphenyl	APHA 6630	<0.0001	mg/l	0.0005	No Relaxation
9.	Total Arsenic (as As)	IS-3025(P-37)	<0.01	mg/l	0.01	No Relaxation
10.	Total Chromium (as Cr)	IS-3025(P-52)	< 0.05	mg/l	0.05	No Relaxation

BDL: Below Detection limit.

#### Notes:

- 1. The results given above are related to the tested sample, as received & mentioned parameters. The customer asked for the above tests only.
- 2. Responsibility of the Laboratory is limited to the invoiced amount only.
- 3. This test report will not be generated again, either wholly or in part, without prior written permission of the laboratory.
- 4. This test report will not be used for any publicity/legal purpose.
- 5. The test samples will be disposed off after two weeks from the date of issue of test report, unless until specification the custome

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AUTHORIZED STCNATORY

Laboratory: GT-20, Sector-117, Noida Gautam Budh Nagar - 201301

Branch Office: IP-2, Haridwar, Uttrakhand

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### TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Water Sample	W-060321-017	15/03/2021

**Issued To:** 

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttarakhand)- 244713

### **SAMPLING & ANALYSIS DATA**

Sample Drawn By : NTL
Sample Received On : 06/03/2021

Sample Quantity : 2.0 lit
Sample packing Details : In Sealed Plastic Bottle & Glass Bottle

Analysis Duration : 06/03/2021 to 14/03/2021

Sample Description : Bore well Water
Sampling Location : Ethanol Plant
Required Test Standard : IS 10500: 2012

#### MICROBIOLOGICAL REQUIREMENT

RESULTS								
S.No.	Parameter	Test Method	Results	Required as per IS- 10500:2012				
1.	Escherichia coli	IS-1622	Absent	Absent/100ml				
2.	Coliform Bacteria	IS-1622	Absent	Absent/100ml				

### ORGANOLEPTIC & PHYSICAL PARAMETERS

S.No.	Parameter	Test Method	Result	Unit	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Colour	IS-3025(P-04)	<1.00	Hazen Unit	5	15
2.	Odour	IS-3025(P-05)	Agreeable		Agreeable	Agreeable
3.	Taste	IS-3025(P-07 & 08)	Agreeable	70	Agreeable	
4.	Turbidity	IS-3025(P-10)	<1.00	NTU	1	5
5.	pH value	IS-3025(P-11)	7.56		6.5 - 8.5	
6.	Total dissolve solid (TDS)	IS-3025(P-16)	380	mg/l	500	2000

GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIVE AMOUNTS

S.No.	Parameter	Test method	Result	Unit	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Aluminium (as Al)	IS: 3025 (P- 55)	<0.01	mg/l	0.03	0.2
2.	Total Ammonia	IS: 3025 (P- 34)	<0.10	mg/l	0.5	No Relaxation
3.	Anionic Detergents (as MBAS)	Annex K of IS- 13428	<0.10	mg/l	0.2	1.0
4.	Barium (as Ba)	IS: 15302	<0.10	mg/l	0.7	No Relaxation
5.	Boron (as B)	IS: 3025 (P- 57)	<0.10	mg/l	0.5	1.0
6.	Calcium (as Ca)	IS: 3025 (P-40)	56.60	mg/l	75	200
7.	Chloramines (as Cl <sub>2</sub> )	IS: 3025 (P- 26)	<1.00	mg/l	4.0	No Relaxation
8.	Chloride (as Cl)	IS: 3025 (P- 32)	21.23	mg/l	250	1000
9.	Copper (as Cu)	IS: 3025 (P-42)	< 0.05	mg/l	0.05	1.5

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11.	Free Residual Chlorine	IS: 3025 (P-26)	BDL	mg/l	0.2	1.0
12.	Iron (as Fe)	IS: 3025(P-53)	0.078	mg/l	1.0	No Relaxation
13.	Magnesium (as mg)	IS: 3025 (P-46)	24.50	mg/l	30	100
14.	Manganese (as Mn)	IS: 3025 (P-59)	< 0.10	mg/l	0.1	0.3
15.	Mineral Oil	Clause 6 of IS: 3025	<0.50	mg/l	0.5	No Relaxation
16.	Nitrate (as NO <sub>3</sub> )	IS: 3025 (P- 34)	4.60	mg/l	45	No Relaxation
17.	Selenium (as Se)	IS: 3025 (P- 56)	< 0.01	mg/l	0.01	No Relaxation
18.	Silver (as Ag)	Annex J IS: 13428	< 0.05	mg/l	0.1	No Relaxation
19.	Sulphate (as SO <sub>4</sub> )	IS: 3025 (P- 24)	25.60	mg/l	200	400
20.	Sulphide(as H <sub>2</sub> S)	IS-3025 (P-29)	< 0.05	mg/l	0.05	No Relaxation
21.	Alkalinity (as Ca CO <sub>3</sub> )	IS: 3025 (P-23)	212.0	mg/l	200	600
22.	Total Hardness (as CaCO <sub>3</sub> )	IS: 3025 (P- 21)	225.0	mg/l	200	600
23.	Zinc (as Zn)	IS: 3025 (P- 49)	< 0.05	mg/l	5.0	15

Parameters Concerning Toxic Substances:

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3.	Lead ( as Pb)	IS-3025(P-47)	<0.01	mg/l	0.01	No Relaxation
4.	Mercury (as Hg)	IS-3025(P-48)	< 0.001	mg/l	0.001	No Relaxation
5.	Molybdenum (Mo)	IS-3025(P-2)	< 0.05	mg/l	0.07	No Relaxation
6.	Nickel (as Ni)	IS-3025(P-54)	< 0.01	mg/l	0.02	No Relaxation
7.	Poly nuclear Aromatic Hydro Carbons	APHA 6440	<0.0001	mg/l	0.0001	No Relaxation
8	Poly chlorinated biphenyl	APHA 6630	<0.0001	mg/l	0.0005	No Relaxation
9.	Total Arsenic (as As)	IS-3025(P-37)	<0.01	mg/l	0.01	No Relaxation
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