अंक : मार्च, 2024
Total dissolved solids (TDS) are the amount of organic and inorganic materials, such as metals, minerals, salts, and ions, dissolved in a particular volume of water; TDS are essentially a measure of anything dissolved in water that is not an H2O molecule. Since it is a solvent, when water encounters soluble material, particles of the material are absorbed into the water, creating total dissolved solids.

खास मात्रा वाले पानी में घुले हुए जैविक और अजैविक मटे जैसे धातु, खैरिज, लवण और आयन के मात्रा को टोटल डिजॉल्युड सॉलिड कहते हैं। दूसरे शब्दों में, H2O अणुओं के अलावा जो कुछ पानी में घुला हुआ है उसको मीप टीडीएस है।
The following list details common total dissolved solids that may be present in your water:

- Calcium
- Chloride
- Magnesium
- Potassium
- Zinc
- Aluminum
- Copper
- Lead
- Arsenic
- Iron
- Chlorine
- Sodium
- Fluoride
- Bicarbonates
- Sulfates
- Pesticides
- Herbicides
### Table 1. Drinking Water Specifications (BIS: IS 10500: 2012)

<table>
<thead>
<tr>
<th>No.</th>
<th>Characteristics</th>
<th>Acceptable Limit</th>
<th>Permissible Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Odour</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>Taste</td>
<td>Agreeable</td>
<td>Agreeable</td>
</tr>
<tr>
<td>4</td>
<td>Turbidity, NTU, Max</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>pH value</td>
<td>6.5 to 8.5</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>Total hardness (CaCO₃), mg/l, Max</td>
<td>200</td>
<td>600</td>
</tr>
<tr>
<td>8</td>
<td>Iron (as Fe), mg/l, Max</td>
<td>0.3</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td>Chlorides, mg/l, Max</td>
<td>250</td>
<td>1000</td>
</tr>
<tr>
<td>10</td>
<td>Free residual chlorine, mg/l, Min</td>
<td>0.2</td>
<td>-</td>
</tr>
<tr>
<td>11</td>
<td>Dissolved solids, mg/l, Max</td>
<td>500</td>
<td>2000</td>
</tr>
<tr>
<td>12</td>
<td>Calcium, mg/l, Max</td>
<td>75</td>
<td>200</td>
</tr>
<tr>
<td>13</td>
<td>Magnesium, mg/l, Max</td>
<td>30</td>
<td>100</td>
</tr>
<tr>
<td>14</td>
<td>Copper, mg/l, Max</td>
<td>0.05</td>
<td>1.5</td>
</tr>
<tr>
<td>15</td>
<td>Manganese, mg/l, Max</td>
<td>0.1</td>
<td>0.3</td>
</tr>
<tr>
<td>16</td>
<td>Sulphate, mg/l, Max</td>
<td>200</td>
<td>400</td>
</tr>
<tr>
<td>17</td>
<td>Nitrate (as NO₃), mg/l, Max</td>
<td>45</td>
<td>-</td>
</tr>
<tr>
<td>18</td>
<td>Fluoride, mg/l, Max</td>
<td>1.0</td>
<td>1.6</td>
</tr>
<tr>
<td>19</td>
<td>Phosphoric compounds, mg/l, Max</td>
<td>0.001</td>
<td>0.032</td>
</tr>
<tr>
<td>19</td>
<td>Mercury, mg/l, Max</td>
<td>0.001</td>
<td>-</td>
</tr>
<tr>
<td>20</td>
<td>Cadmium, mg/l, Max</td>
<td>0.05</td>
<td>-</td>
</tr>
<tr>
<td>21</td>
<td>Arsenic, mg/l, Max</td>
<td>0.01</td>
<td>-</td>
</tr>
<tr>
<td>22</td>
<td>Selenium, mg/l, Max</td>
<td>0.01</td>
<td>-</td>
</tr>
<tr>
<td>23</td>
<td>Lead, mg/l, Max</td>
<td>0.01</td>
<td>-</td>
</tr>
<tr>
<td>24</td>
<td>Nickel, mg/l, Max</td>
<td>0.02</td>
<td>-</td>
</tr>
<tr>
<td>25</td>
<td>Zn, mg/l, Max</td>
<td>0.2</td>
<td>1.0</td>
</tr>
<tr>
<td>26</td>
<td>Total inorganic carbon, mg/l, Max</td>
<td>0.08</td>
<td>-</td>
</tr>
<tr>
<td>27</td>
<td>Total alkalinity, mg/l, Max</td>
<td>200</td>
<td>600</td>
</tr>
<tr>
<td>28</td>
<td>PAH, mg/l, Max</td>
<td>0.0005</td>
<td>-</td>
</tr>
<tr>
<td>29</td>
<td>Mineral oil, mg/l, Max</td>
<td>0.5</td>
<td>-</td>
</tr>
<tr>
<td>30</td>
<td>Total organic carbon, mg/l, Max</td>
<td>200</td>
<td>600</td>
</tr>
<tr>
<td>31</td>
<td>Alkalinity, mg/l, Max</td>
<td>0.03</td>
<td>0.2</td>
</tr>
<tr>
<td>32</td>
<td>Boron, mg/l, Max</td>
<td>0.5</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Pesticide Residue Limit (µg/L):**

- 33. Alachlor: 20
- 34. Atrazine: 1
- 35. Aldrin/Dieldrin: 0.03
- 36. Alpha HCH: 0.01
- 37. Beta HCH: 0.04
- 38. Dieldrin: 125
- 40. DDT: 0.04
- 41. 2,4-Dichlorophenoxyacetic acid: 20
- 42. Endosulfan (alpha, beta and sulfoxide): 0.4
- 44. Ethion: 1
- 45. Gamma HCH (Lindane): 1
- 46. Ipermethrin: 1
- 47. Malathion: 100
- 49. Methyl parathion: 0.3
- 60. Mecoprop: 1
- 61. Phenone: 2

**Activated carbon filter**

This water filter uses activated carbon filters for purification process. The carbon filters can remove chemicals like chlorine, pesticides and impurities to a great extent. The filtration changes the taste and odour of water. It does not require electricity for operation. But it is also not very effective in removing microbes from water. In addition, the conventional carbon filters are a breeding ground for the microbes and therefore, non-silver coated carbon is now being used by most of the commercial filter suppliers.

**UV purification or e-holding**

UV (Ultra Violet) water purification uses ultra-violet light to inactivate all germs, bacteria, microbes, e.g., etc. in water. Ultraviolet water purification is a simple and effective process that destroys around 99.99% of the harmful organisms in water. There is a tiny mercury lamp inside the panther that produces short wave UV radiations. These radiations irradiate the water and penetrate the cells of bacteria and viruses, destroying their ability to reproduce. The microbes and organisms fail to multiply and eventually die. This purification
Sand Filtration
RO User In Haryana Village
Commercial RO Plants
To,
Sh. Vivek Mishra
4/52, 5th Floor, B Block,
GD Colony, Mayur Vihar Phase 3,
Delhi, Pin 110098
communication.vivek@gmail.com

Subject: Information sought under Right to Information Act, 2005

Sir,

This has reference to your RTI application Reg. No. CPCBD/R/T/24/00017 dated 25/01/2024. Information as available with WQM-I Division, CPCB is given below:

Point 1 & 2: Since desired information is not available with WQM-I Division, the RTI application is transferred to Bureau of Indian Standards (BIS) under Section 6(3) of the RTI Act, 2005 with a request to furnish information if any, directly to the applicant.

Point 3: Testing of the quality of reverse osmosis water of major companies is not carried out by CPCB since drinking water quality does not come under the ambit of CPCB.

Point 4, 5 & 6: Ministry of Environment, Forest and Climate Change (MoEF&CC) notified rules to regulate the use of water purification system vide O.S.R (E) dated 10th November, 2023.

Yours faithfully,

(P.K. Mishra)
CPIO, WQM-I Division

Copy to:

OFFICE OF THE CHIEF WATER ANALYST(W&S)-I
DELHI JAL BOARD: GOVT. OF NCT OF DELHI
WATER WORKS WAZIRABAD, DELHI-110054
Email ID: cwa.djb@gmail.com

Subject: Reply to Online RTI Reg.No.DLB/2024/60092 dated 23.01.2024

of Mr. Vivek Mishra, Mayur Vihar Phase-3 under RTI Act 2005

Point no.1: The TDS in water samples depends upon the source of water and it differs from place to place. The applicant may please certify the particular location/colony/area for getting the details of TDS in water samples.

Point no.2: As above.

Point no.3: Water supplied by DJB is fit for drinking purpose. In case of any quality issues in drinking water, the residents of Delhi can contact with DJB’s Toll free no.1916.

Point no.4: Does not pertain to Treatment & Quality Control Wing of DJB.
To,
Sh. Vivek Mishra
B252, 5th Floor, B Block,
GD Colony, Mayur Vihar Phase 3,
Delhi, Pin: 110096
communication.vivek@gmail.com

Subject: Information sought under Right to Information Act, 2005

Sir,

This has reference to your RTI application Reg. No CPCBD/R/E/24/00079 dated 06/02/2024. Information as available with WQM-1 Division, CPCB is given below:

Point 1 & 2: Ministry of Environment, Forest and Climate Change (MoEF&CC) notified rules to regulate the use of water purification system vide G.S.R (E) dated 10th November, 2023. Further, Guidelines for Management, Storage, Utilization and Disposal of reject water generated from Domestic Water Purification System (DWPS) is under preparation.

Point 3: Desired information is not available with WQM – 1 Division, CPCB.

Yours faithfully,

(P.K. Mishra)
CPIO, WQM-1 Division
We Don’t have this information

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Information Sought</th>
<th>Reply</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Have any health side effects been observed by drinking water released from RO system?</td>
<td>We don’t have this information</td>
</tr>
<tr>
<td>2.</td>
<td>Can drinking water from RO system cause mineral deficiency, if yes then which minerals deficiency is seen in the body?</td>
<td>We don’t have this information</td>
</tr>
<tr>
<td>3.</td>
<td>Has any study been done on the effects or side effects of RO water on the human body, if yes then provide the report.</td>
<td>We don’t have this information</td>
</tr>
<tr>
<td>4.</td>
<td>Has RO water been recommended by the Health Ministry in cities, towns or villages?</td>
<td>We don’t have this information</td>
</tr>
<tr>
<td>5.</td>
<td>Is there any research summary available on the impact of RO systems on public health?</td>
<td>We don’t have this information</td>
</tr>
</tbody>
</table>

In case you are not satisfied with the reply, you may approach the First Appellate Authority, Director, ICMR-National Institute of Nutrition, Jamal Osmania P.O., Hyderabad -500 007 within thirty days from the receipt of this information.

Yours faithfully,

(प्रति जानकारी के लिए) / Dr. P. Suryanarayana

Date: 21-02-2024

To,
Vivek Mishra,
B252, 5th Floor, B Block, GD Colony,
Mayur Vihar Phase 3, Delhi, Pin: 110096.

Sub: - Information required under Section 6(1) of the Right to Information Act, 2005 Reg.

Sir,
Please refer to your RTI letter No: INCMR/R/T/24/00008, dated 19/01/2024, which is transferred from Department of Health Research With Reference Number: DOHRE/R/T/24/00021, dated 19-01-2024 and mailed on 22-01-2024 from ICMR, New Delhi to CPIO, ICMR-National Institute of Nutrition, Hyderabad to provide the information and the following is the reply.
Order & Regulation

• 20 may 2019 NGT order
• Less than 500 mg per litre
• Lower value of TDS
• Lower value of calcium & magnesium

Thank you
Vivek Mishra
Senior Reporter
Down To Earth
Vivek.Mishra@cseindia.org