

(Reaffirmed 2008)

IS 264 : 2005

भारतीय मानक  
नाइट्रिक अम्ल — विशिष्टि  
( तीसरा पुनरीक्षण )

*Indian Standard*  
NITRIC ACID — SPECIFICATION  
( *Third Revision* )

ICS 71.060.30

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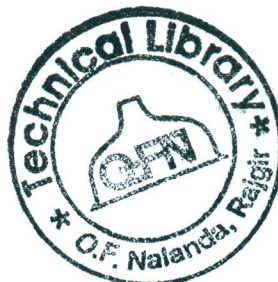
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Price Group 10



**Table 1 Requirements for Nitric Acid**  
(Clause 4.2)

| Sl No. | Characteristic                                                       | Requirements      |                                                  |                       |                          | Method of Test, Ref to Annex |
|--------|----------------------------------------------------------------------|-------------------|--------------------------------------------------|-----------------------|--------------------------|------------------------------|
|        |                                                                      | Technical Grade   | Nitration and Explosive                          | Chemically Pure Grade | Analytical Reagent Grade |                              |
| (1)    | (2)                                                                  | (3)               | (4)                                              | (5)                   | (6)                      | (7)                          |
| i)     | Total acidity (as $\text{HNO}_3$ ), percent by mass, <i>Min</i>      | 52.0              | Nitration Grade : 93.0<br>Explosive Grade : 98.0 | 65.0 <sup>1)</sup>    | 69.5                     | A                            |
| ii)    | Residue on ignition, percent by mass, <i>Max</i>                     | 0.1               | 0.05                                             | 0.01                  | 0.001                    | B                            |
| iii)   | Chlorides (as Cl), percent by mass, <i>Max</i>                       | 0.03              | 0.001                                            | 0.001                 | 0.000 05<br>(0.5 ppm)    | C                            |
| iv)    | Sulphates (as $\text{H}_2\text{SO}_4$ ), percent by mass, <i>Max</i> | 0.2               | 0.03                                             | 0.005                 | 0.000 2<br>(2 ppm)       | D                            |
| v)     | Heavy metals (as Pb), percent by mass, <i>Max</i>                    | To Pass Test      | To Pass Test                                     | To Pass Test          | 0.000 02<br>(0.2 ppm)    | E                            |
| vi)    | Nitrous acid (as $\text{HNO}_2$ ), percent by mass, <i>Max</i>       | —                 | 0.2                                              | 0.05                  | —                        | F                            |
| vii)   | Arsenic (as As), percent by mass, <i>Max</i>                         | —                 | —                                                | 0.000 2<br>(2 ppm)    | 0.000 001<br>(0.01 ppm)  | G                            |
| viii)  | Iodine                                                               | —                 | To Pass Test                                     | —                     | —                        | H                            |
| ix)    | Iron (as Fe), percent by mass, <i>Max</i>                            | —                 | —                                                | —                     | 0.000 02<br>(0.2 ppm)    | J                            |
| x)     | Manganese (as Mn), percent by mass, <i>Max</i>                       | —                 | —                                                | —                     | 0.000 04<br>(0.4 ppm)    | K                            |
| xi)    | Phosphate (as $\text{PO}_4$ ), percent by mass, <i>Max</i>           | —                 | —                                                | —                     | 0.000 1<br>(1 ppm)       | L                            |
| xii)   | Silicate (as $\text{SiO}_2$ ), percent by mass, <i>Max</i>           | —                 | —                                                | —                     | 0.000 05<br>(0.5 ppm)    | L                            |
| xiii)  | Ammonium salts (as $\text{NH}_3$ ), percent by mass, <i>Max</i>      | 0.0005<br>(5 ppm) | —                                                | —                     | —                        | M                            |

<sup>1)</sup> Higher values shall apply, if agreed to between the purchaser and the supplier.

less than 25 mm high, showing:

- Name of material;
- Manufacturer's name and recognized trade-mark, if any;
- Grade and mass of the material; and
- Year of manufacture.

They shall prominently display the cautionary notice:

'CORROSIVE, HANDLE WITH CARE'

5.2.2 The data of chemical analysis with respect to the requirements prescribed in col 6 of Table 1 shall also be shown on the containers of the analytical reagent grade of the material.

5.2.3 The packages shall be labelled as shown in Fig. 15 of IS 1260 (Part 1).

#### 5.2.4 BIS Certification Marking

The containers may also be marked with the Standard Mark.

5.2.4.1 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act, 1986* and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

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