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| --- | --- | --- | --- | --- | --- |
|  | |  | | | |
| **(PETROLEUM, COAL & RELATED PRODUCTS DEPTT.)** | | | |
| **AGENDA** | | | | | |
| **Organic Chemicals, Alcohols & Allied Products Sectional Committee, PCD 9** | | | | | **37th Meeting** |
| **DATE & TIME** | 1 March 2024, 10:30 am | | | | |
| **VENUE** | Hybrid (Virtual + Physical) | | | | |
| Virtual Meeting Details | | | Physical Meeting Details | |
| Meeting Link: | | https://bismanak.webex.com/bismanak/j.php?MTID=m38ddda25c3a557e313093519979345d1 | Venue: | Lal C Verman Hall, BIS Headquarters, 9, Bahadur Shah Zafar Marg, New Delhi, Delhi-110002, |
| Meeting Number: | | 2527 879 8714 |
| Password: | | kW5qKtXky85 (59575895 from video systems) | City: | New Delhi, India |
| **CHAIRMAN:** | **Dr. C.V Rode, NCL Pune** | | | | |
| **MEMBER SECRETARY** | Ms Aditi Choudhary, Scientist ‘B’ (PCD), BIS  E-mail: [pcd9@bis.gov.in](mailto:pcd9@bis.gov.in); [pcd@bis.gov.in](mailto:pcd@bis.gov.in) | | | | |

# Part 2

**Item 6 COMMENTS ON PUBLISHED STANDARDS**

**6.1 IS 1781 : 2022 Urea , Technical - Specification (Second Revision)**

The following comments have been received from Indian Chemical Council via mail:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.**  **(1)** | **Clause/Sub-clause/ para/table/fig. No. commented**  **(2)** | **Commentator/**  **Organization/**  **Abbreviation**  **(3)** | **Type of Comments**  **(General/Editorial/ Technical)**  **(4)** | **Justification**  **(5)** | **Proposed Change** |
| 1 | Table 1 | Jashvant Sevak | Technical | During the urea production there may be a possibility of other lubricating oil which need to restrict. | Required to add specification for benzene soluble 200 ppm, max |

The Committee may **CONSIER** and **DELIBERATE** the comments received.

**6.2 IS 5295 : 2023 Ethylene Glycol - Specification (Third Revision)**

The following comments have been received from Shri Pavan Kumar Ora, BIS and Dr. Vijay Kumar Marrapu, IOCL via standardization portal:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.**  **(1)** | **Clause/Sub-clause/ para/table/fig. No. commented**  **(2)** | **Commentator/**  **Organization/**  **Abbreviation**  **(3)** | **Type of Comments**  **(General/Editorial/ Technical)**  **(4)** | **Justification**  **(5)** | **Proposed change**  **(6)** |
| 1 | Clause B-10.2.8 | Shri Pavan Kumar Ora, BIS | Technical | 1. At Clause B-10.2.8 of B-10 (Determination of Aldehyde as HCHO) requirement of Rotameter, for gas flow measurement is mentioned however during the testing of Aldehyde (as HCHO) in sample of ethylene glycol through UV-Visible Spectrophotometer uses of Rotameter not mentioned.  2. Further, it's to be mentioned that during the testing of Aldehyde (as HCHO) through UV-Visible Spectrophotometer colour intensity corresponds to the aldehyde content of sample is measured photo metrically at 635 nm and flow of Liquid or Gas not required in this test. Therefore, use of Rotameter is not required in this testing. | Clause **B-10.2.8** Rotameter, for gas flow measurement may be deleted in IS 5295:2023  Inputs were sought from IOCL. The following inputs has been received:   * Reference of rotameter may be deleted as not used while for determination of aldehyde. |
| 2 | Clause B-10.2.3 | Shri Pavan Kumar Ora, BIS | Technical | 1. At clause B-10.2.3 of B-10 (Determination of Aldehyde (as HCHO) ) requirement of Glass Absorber with Connecting Tube, two of capacity 250 ml is mentioned however during the testing of Aldehyde (as HCHO) in Ethylene Glycol sample through UV-Visible Spectrophotometer uses of Glass Absorber with Connecting Tube, two of capacity 250 ml not mentioned. | Clause **B-10.2.3** Glass Absorber with Connecting Tube, may be deleted in IS 5295:2023  Inputs were sought from IOCL. The following inputs has been received:   * Reference of rotameter may be deleted as not used while for determination of aldehyde. |
| 3 | 4.2/Table 1/ SI No.ii | Dr. Vijay Kumar Marrapu; marrapuvk@indianoil.in; IOCL | Technical | The recommended test method for Glycol Relative density at 20 °C/20 °C by **IS 1447(Part 167)** is behind the scope of test method.   1. Ethylene glycol Requirement range is 1.114-1.116, whereas IS 1447(Part 167): 2018 range is 0.600-1.100. Hence this test method not appropriate for relative density at 20°C/20°C. 2. IS 1447(Part 167): 2018 is the test method for density only, it doesn’t not describe about Relative density. | ASTM D4052-2022 would be the similar and appropriate test method (oscillating U-tube) for Relative density at 20 °C/20 °C.  or  Can give in foot note as  IS 1447(Part 167): 2018 test method Scope shall be used as 0.600 to 1.116 instead of 0.600 to 1.100 for glycol product. |

The Committee may **CONSIER** and **DELIBERATE** the comments received.

**6.3 16112 : 2013 Beta Picoline – Specification**

The following comments have been received from Indian Chemical Council on behalf of Jublient Ingrevia Limited via mail dated 11 January 2024:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.**  **(1)** | **Clause/Sub-clause/ para/table/fig. No. commented**  **(2)** | **Commentator/**  **Organization/**  **Abbreviation**  **(3)** | **Type of Comments**  **(General/Editorial/ Technical)**  **(4)** | **Justification**  **(5)** | **Proposed change**  **(6)** |
|  | 2-Ethylpyridine percent by mass | Indian Chemical Council on behalf of Jublient Ingrevia Limited | Technical | 2-Ethylpyridine and Gamma  Picoline are controlled by design of process and limit of unknown impurities are widened with the same level to create practical robustness based on innate process capability and ensure continued compliance with BIS specification in routine.  Total mass balance remains the same. | Request to revise IS limit to 0.3% Max from 0.4% Max |
|  | Gamma Picoline percent by mass | Technical | Request to revise IS limit to 0.5% Max from 0.6% Max  ***BIS Observation:*** The Committee in its last meetings after detailed deliberation has revised the requirements to 0.8 percent, Max. |
| 3. | Other unknown impurities,  percent by mass | Technical | Request to revise IS limit to 0.4% Max from 0.2 % Max |

The Committee may **CONSIER** and **DELIBERATE** the comments received.

**6.4 16113 : 2013 Gamma Picoline — Specification**

The following comments have been received from Indian Chemical Council on behalf of Jublient Ingrevia Limited via mail dated 11 January 2024:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.**  **(1)** | **Clause/Sub-clause/ para/table/fig. No. commented**  **(2)** | **Commentator/**  **Organization/**  **Abbreviation**  **(3)** | **Type of Comments**  **(General/Editorial/ Technical)**  **(4)** | **Justification**  **(5)** | **Proposed change**  **(6)** |
|  | 2-Ethylpyridine percent by mass | Indian Chemical Council on behalf of Jublient Ingrevia Limited | Technical | 2-Ethylpyridine and Beta Picoline are controlled by design of process and limit of unknown impurities are widened with the same level to create practical robustness based on innate process capability and ensure continued compliance with BIS specification in routine. Total mass balance remains the same. | Request to revise IS limit to 0.4% Max from 0.5% Max |
|  | Beta Picoline percent by mass | Technical | Request to revise IS limit to 0.5% Max from 0.6% Max |
| 3. | Other unknown impurities,  percent by mass | Technical | Request to revise IS limit to 0.3% Max from 0.1 % Max |

The Committee may **CONSIER** and **DELIBERATE** the comments received.

**6.5 16114 :2013 3- Cyanopyridine — Specification**

The following comments have been received from Shri Vikram Ranka, Western Drug Limited via mail dated 22 September 2023:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.**  **(1)** | **Clause/Sub-clause/ para/table/fig. No. commented**  **(2)** | **Commentator/**  **Organization/**  **Abbreviation**  **(3)** | **Type**  **of**  **Comments**  **(4)** | **Justification**  **(5)** | **Proposed**  **change**  **(6)** |
| 1 | Clause 3.3, Table 1, Sl.No. ii : 4-Cyanopyridine content percent by mass, Max - 0.6 | Shri Vikram Ranka, Western Drug Limited | Technical | For Justification Please Refer enclosed; | 4-Cyanopyridine content to 0.8 percent by mass, Max from 0.6 percent, Max |
| 2 | Clause 3.3, Table 1, Sl.No. iii: 2-Cyanopyridine content percent by mass, Max - 0.15 | Technical | 2-Cyanopyridine content to 0.5 percent by mass, Max from 0.15 percent, Max |
| 3 | Clause 3.3, Table 1, Sl.No. v: Moisture content percent by mass, Max - 0.15 | Technical | Moisture content to 0.3 percent by mass, Max from 0.15 percent, Max |

The Committee may **CONSIER** and **DELIBERATE** the comments received.

**6.6 IS 4566 : 2020 Specification For Methylene Chloride ( Dichloromethane ), Technical ( Second Revision)**

The following comments have been received from Shri Vipul, M/s Merck Group via standardization portal:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.**  **(1)** | **Clause/Sub-clause/ para/table/fig. No. commented**  **(2)** | **Commentator/**  **Organization/**  **Abbreviation**  **(3)** | **Type of Comments**  **(General/Editorial/ Technical)**  **(4)** | **Justification**  **(5)** | **Proposed change**  **(6)** |
| 1. | 3/ 3.1 (Grades) | Vipul;  regulife@merckgroup.com; M/s Merck Group | Technical | Currently IS 4566 covers (a) Grade 1 - for the use in photo film industry, and (b) Grade 2 - suitable for industrial and other applications. IS 4566 does not include Analytical grade of Dichloromethane used as in analytical lab for Gas chromatography and HPLC or other analytical testing application. In absence of clear guidance by IS std, the industry can use either of the two grades for analytical applications and this will not harmonize quality of analytical grade of DCM. Also the specifications of our grade for use in photo film industry requires excessive testing putting testing burden on manufacturer. Hence suggesting to frame a new Grade as Analytical grade of Dichloromethane with mandatory testing parameters such as Description, Density, Residue on evaporation, Moisture, Acidity, UV Transmittance and Percentage purity. These parameters would make the analytical grade suitable for analytical application without burdening the industry with excessive testing. Additionally, the application listed in this IS 4566 do not include application in pharmaceutical industry (manufacturing and quality control labs). Pharma industry follows good manufacturing practices (GMP) as required by health authorities. The pharma industry uses compendial grade like IP, USP, EP, etc. and where IP grade is not available, they comply to international pharmacopoeias. Hence IS standards should clarify that Products meeting pharmacopoeial standards are not in the scope. | Grade 3 - Analytical grade (with limited testing parameters with respect to Analytical grade). Addition of statement recommending that IS 4566 excludes pharmaceutical grade of Dichloromethane. |
| 2. | Annex A/A-14 | Vipul;  regulife@merckgroup.com; M/s Merck Group | Technical | The method of analysis for Determination of Total impurities due to methyl chloride and chloroform requires using Methyl chloride as standard for GC analysis of impurities. Using Methyl chloride as standard requires accurate measurement of Methyl chloride and injection of defined quantity in the GC column for analysis as per IS 4566. However, as Methyl Chloride is available in the gaseous form in the pure state it vaporized when aliquoted for preparation of standard for injection. Being a pressurized gas it is difficult to handle and measure accurately. The liquid forms of Methyl chloride are available as “Methyl chloride in Methanol” which is a mixture and IS 4566 does not provide provision to use such a mixture as standard.  Hence we seek clarification on how to conduct this test. | Determination of Total impurities due to methyl chloride and chloroform is not a critical testing parameter for Analytical applications, hence for analytical applications this test should be optional for conformance to pure grade of IS 4566. |
| 3. | Annex A/A-7 | Vipul;  regulife@merckgroup.com; M/s Merck Group | Technical | For testing of Free chlorine, there are alternates methods available that the industry is effectively using which are proposed by ACS and Analar utilizing  reagents such as Potassium iodide and Cadmium iodide, respectively. Moreover, Analar method suggests the quantitative method which is more accurate and precise. | Addition of alternative testing method for Free chlorine test such as ACS or Analar method. Kindly find the enclosed methods. |

The Committee may **CONSIER** and **DELIBERATE** the comments received.

**6.7 IS 15030 : 2022 Terephthalic Acid - Specification (First revision)**

The following comments have been received from Dr Y.S. Jhala, M/s IOCL via mail dated 22 February 2024:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.**  **(1)** | **Clause/Sub-clause/ para/table/fig. No. commented**  **(2)** | **Commentator/**  **Organization/**  **Abbreviation**  **(3)** | **Type of Comments**  **(General/Editorial/ Technical)**  **(4)** | **Justification**  **(5)** | **Proposed change**  **(6)** |
| 1. | Annex H, H-2 Method A, H-2.5 | Dr Y.S. Jhala, M/s IOCL | Technical | Existing calibration by Reverse Plot for determination of Concentration. It is giving more  accurate analysis for  different concentration accuracy | Inclusion of Multi Point calibration by addition of impurities in Ammonia Solution  (Ref Invista Test Method) |

The Committee may **CONSIER** and **DELIBERATE** the comments received.

**6.8 IS 539 : 1974 Specification of Naphthalene (Second Revision)**

The Committee in its 35th meeting requested BIS Sectt. to prepare the draft revision by incorporating the comments as received from Shri Aabhid Hussain, BIS and circulate to BIS licensees for a period of one month. If no comments received the draft is to be issued into wide circulation for a period of 2 months. Further, if comments are received on the circulated draft to licensees, BIS Sectt. was requested to schedule a meeting with the licensees and discuss the inputs received and prepare the wide circulation draft.

**Present Status:** The draft is yet to be prepared and circulated to BIS licensees.

The Committee may **NOTE**.

**6.9 IS 695 : 2020 Acetic Acid — Specification ( Fourth Revision )**

The following comments have been received from Shri Simesh Kumar, BIS via standardization portal:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.**  **(1)** | **Clause/Sub-clause/ para/table/fig. No. commented**  **(2)** | **Commentator/**  **Organization/**  **Abbreviation**  **(3)** | **Type of Comments**  **(General/Editorial/ Technical)**  **(4)** | **Justification**  **(5)** | **Proposed change**  **(6)** |
| 1 | Clause 7.1, Table 1; A-7.0 | Simesh Kumar; cksimesh2000@bis.gov.in; BIS | Technical | The 'Sulphate (as SO4)' can also be determined by instrumental test method such as UV-Vis spectrophotometer in addition to A-7.0 (Turbidity comparision method). | **A-7.1 (Referee Method)**  Alternatively, it can be analyzed by instrumental test method such as UV-Vis spectrophotometer. |
| 2 | Clause 7.1, Table 1; A-6.1 & 6.2 | Simesh Kumar; cksimesh2000@bis.gov.in; BIS | Technical | The 'Iron (as Fe)' can also be determined by any established/validated instrumental test methods such as ICP-OES & ICP-MS in addition to A-6.1 (Method A - Using Thioglycolic Acid method, i.e, Colour comparision method) & A-6.2 (Method B - Using UV-visible Spectrophotometer). | **A-6.3 (Referee Method)**  Alternatively it can be analyzed by any established/validated instrumental test methods such as ICP-OES, ICP-MS, etc. |

The Committee may **CONSIER** and **DELIBERATE** the comments received.

**6.10 IS 5149 : 2020 Specification for Maleic Anhydride, Technical ( Second Revision )**

The following comments have been received from Shri Simesh Kumar, BIS via standardization portal:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.**  **(1)** | **Clause/Sub-clause/ para/table/fig. No. commented**  **(2)** | **Commentator/**  **Organization/**  **Abbreviation**  **(3)** | **Type of Comments**  **(General/Editorial/ Technical)**  **(4)** | **Justification**  **(5)** | **Proposed change**  **(6)** |
| 1 | Clause 2.2, Table 1, A-7.1 & A-7.2 | Simesh Kumar; cksimesh2000@bis.gov.in; BIS | Technical | The 'Iron content (as Fe)' can also be determined by any established/validated instrumental test method such as ICP-OES & ICP-MS in addition to A-7.1 (Method A - Volumetric method) & A-7.2 (Method B - Spectrophotometric or Photoelectric Absorptio-metric Method). | **A-7.3 (Referee Method)**  Alternatively it can be analyzed by any established/validated test method such as ICP-OES, ICP-MS, etc. |

The Committee may **CONSIER** and **DELIBERATE** the comments received.

**6.11 IS 9908 : 2020 Specification for Formic Acid (First Revision)**

The following comments have been received from Shri Simesh Kumar, BIS via standardization portal:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.**  **(1)** | **Clause/Sub-clause/ para/table/fig. No. commented**  **(2)** | **Commentator/**  **Organization/**  **Abbreviation**  **(3)** | **Type of Comments**  **(General/Editorial/ Technical)**  **(4)** | **Justification**  **(5)** | **Proposed change**  **(6)** |
| 1. | 4.2/Annex A/ A-3 | Mr. Kiran Bhat; kiran.bhat@basf.com; M/s BASF | Technical | Assay method mentioned in the standard is manual titration method. Now a days most of the industry labs using auto titrators for the titrations. | Hence request to allow the use of auto titrators in addition to manual titrations for Assay estimation for the more precision and accuracy. |
| 2. | 4.2/Annex A/ A-7 | Mr. Kiran Bhat; kiran.bhat@basf.com; M/s BASF | Technical | Method mentioned is chloride estimation using Silver Nitrate manual titration. Chloride estimation can be done more precisely and accurately using ion chromatography using the method ISO 10304-1. | Request to incorporate method ISO 10304-1 as alternative method. |
| 3. | 4.2/Annex A/ A-9 | Mr. Kiran Bhat; kiran.bhat@basf.com; M/s BASF | Technical | Method mentioned for Sulfate estimation using Barium Chloride manual titration. Sulphate estimation can be done more precisely and accurately using ion chromatography using the method ISO 10304-1. | Request to incorporate method ISO 10304-1 as an alternative method. |

The Committee may **CONSIER** and **DELIBERATE** the comments received.

**Item 7 NEW SUBJECTS**

The following are the new work item proposal received:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl No.** | **Subject** | **Received from** | **Status** | **Working Draft** |
|  | 2,4-Di Tertiary Butyl Phenol | Shri Mahesh K Rashinkar, M/s Vinati Organics Limited | The Committee in its 35th meeting constituted the following Panel to prepare the working draft.  Composition of the Panel:  a) Vinati Organics Limited (*Convener*)  b) SII Group  c) Dr M.J. Kapadia  d) Member Secretary of PCD 9  The Panel conducted its 1st meeting on 12 December 2023 to deliberate and prepare the working draft. After detailed deliberation, the Panel sought some inputs from M/s Vinati Organics Limited. The work drafts as received from M/s Vinati Organics Limited after incorporating the sough inputs are attached herewith. |  |
|  | 2,6-Di Tertiary Butyl Phenol |  |
|  | *o*-Tertiary Butyl Phenol |  |
|  | *p*-Tertiary Butyl Phenol |  |
| The Committee may **CONSIDER** issuing the draft as P-draft. | |
|  | Hexylene Glycol | Shri D. P. Shegekar, M/s Prasol Chemicals | Hexylene glycol is also employed as an antifreeze, and as a coupling agent for hydraulic fluids. It is a moisturizing, and setting, agent in the manufacture of textiles and can also be found in the cosmetics industry where it is a component of fragrances and bath, hair, and soap preparations. | Shri D. P. Shegekar, M/s Prasol Chemicals has been requested to provide the working draft. |
|  | Tetrahydrofuran | Shri Shrikant Nikam, M/s INEOS Solvents | Tetrahydrofuran has many industry uses as a solvent including in natural and synthetic resins, high polymers, fat oils, rubber, polymer and protective coating, adhesives, inks, tetramethyl lead, PVC and in the production of nylon and adipic acid. | Inputs as received are attached as:  and |
| The Committee may **CONSIDER** | | | | |

**Item 8 PROGRAMME OF WORK**

# 8.1 Activities of Organic Chemicals, Alcohols & Allied Products Sectional Committee, PCD 9

# The list of Indian Standards published and documents at various stages under PCD 9 has been attached as

# 

The Committee may **NOTE.**

# 8.2 Standards due for Periodic Review for financial year 2024-2025

# As per BIS Rules, all Indian Standards shall be reviewed once in five years after their publication/reaffirmation with the following guidelines:

# The standards may be reaffirmed in the present form;

# The standards may be reaffirmed with minor changes by issuing an amendment;

# The standards may be reaffirmed with simultaneously taking up the revision; or

# The standards may be withdrawn.

# The Indian Standards, which are due for periodical review for 2019, are given below in Table 1.

# Vide our letter No. PCD 9/A-2.37 dated 22/02/2024, members/experts were requested to review the standards given in Table 1, taking into account the information given in other overseas standards, if any, and latest technological developments that might have taken place in this interim period since their publication with a view to update the same and make their implementation more effective.

# Table 1 Indian Standards due for Periodic Review

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **IS No. / IS Title** | **Present Status** |
|  | IS 12277 : 1988 Specification for Polyethylene Glycol 400 | To be allotted as ARP in 2024-2025 |
|  | IS 12438 : 1988 Specification for Dimethyl Terephthalate | — |
|  | IS 13322 : 1992 Furfural, Technical - Specification | — |
|  | IS 13359 : 1992 Polyethylene Glycol 200 - Specification | To be allotted as ARP in 2024-2025 |
|  | IS 13475 : 1992 Sodium Formate - Specification | — |
|  | IS 14502 : 1998 N - Dibutyl Ether - Specification | — |
|  | IS 14707 : 1999 Methyl Acrylate - Specification | Under revision, see item **4.1** |
|  | IS 14708 : 1999 Ethyl Acrylate - Specification | Under revision, see item **5.3** |
|  | IS 14709 : 1999 N - Butyl Acrylate - Specification | Under revision, see item **5.14** |
|  | IS 15773 : 2008 Sodium Dichloroisocyanurate - Specification | — |
|  | IS 170 : 2020 Acetone — Specification ( Fifth Revision ) | Comments received on wide circulation draft amendment, see item **5.13** |
|  | IS 245 : 2020 Specification for Trichloroethylene, Technical ( Fourth Revision ) | — |
|  | IS 2631 : 2020 Iso Propyl Alcohol — Specification ( Second Revision ) | Draft Amendment to be finalized for printing, see item 5.9 |
|  | IS 323 : 2009 Rectified Spirit for Industrial Use - Specification (Second Revision) | — |
|  | IS 361 : 2009 Normal Butyl Alcohol, Technical - Specification (Third Revision) | The following comments have been received from Dr. M. J. Kapadia:   * + - * Footnote for GC method (A2.1.1) may be revised with new footnote that allows use of other detectors, if any.       * Limit of iso-butanol may be introduced alongwith method of analysis.       * Acidity limit may be made more stringent.       * Unit of colour parameter may be made in line with other IS.       * B-4 Procedure for colour measurement – Word ‘complete’ in last line should be revised by word ‘compare’.       * For Aldehyde and Ketone (Annex F), GC method may be incorporated as an alternate method.       * Product description by one of the manufacturers is enclosed for reference.     The Committee may **CONSIDER**. |
|  | IS 4105 : 2020 Specification for Styrene ( Vinyl Benzene ) ( Second Revision ) | — |
|  | IS 4117 : 2008 Alcohol Denaturants - Specification (Second Revision) | Under Printing see item **8.3** |
|  | IS 4306 : 1987 Specification for Hexamethylenetetramine (Hexamine)(Second Revision) | The following inputs have been received from Dr M.J. Kapadia:• 3.2 Marking – Month / Year of manufacture should be included.• Table 1 – If required by industry, limits for stabilized grade may be introduced.• A 8.1 – Determination of As is indicated by Gutzeit method as per IS 2088. However, IS 2088 has also included ICP method of determination. Therefore, option for following either method should be included in IS 4306.• A9, A10, A11 – Cl, SO4 and Fe determination methods are based on visual comparison. Precise measurement of turbidity / colour and calculation of precise result may be considered if felt necessary by industry.• Product description given by a manufacturer is attached.The Committee may CONSIDER. |
|  | IS 4566 : 2020 Specification For Methylene Chloride ( Dichloromethane ), Technical ( Second Revision) | Comments received on standard, see item **6.6** |
|  | IS 5149 : 2020 Specification for Maleic Anhydride, Technical ( Second Revision ) | Comments received on standard, see item **6.10** |
|  | IS 517 : 2020 Specification for Methanol ( Methyl Alcohol ) ( Third Revision ) | Draft Amendment to be finalized for printing, see item **5.12** |
|  | IS 5341 : 1980 Specification for Benzyl Chloride, Technical (First Revision) | To be allotted as ARP in 2024-2025 |
|  | IS 538 : 2020 Phenol ( Carbolic Acid ) — Specification ( Third Revision ) | — |
|  | IS 5992 : 1970 Specification for p - Dichlorobenzene, technical | — |
|  | IS 6393 : 1987 Specification for Phenylacetamide (First Revision) | — |
|  | IS 6515 : 1999 Sodium Pentachlorophenate - Specification (First Revision) | — |
|  | IS 6716 : 1981 Specification for Benzoic Acid, Technical(First Revision) | The following inputs have been received from Dr M.J. Kapadia: • 3.2 Marking – Requirement related to Month / Year of manufacture may be introduced.  • Table 1 (vi) – Limit of 2% is high. Also not coinciding with purity requirement of 99.5%. The Committee may CONSIDER. |
|  | IS 6718 : 1972 Specification for Phenoxyacetic Acid | To be allotted to Consultant |
|  | IS 6775 : 1973 Specification for Ethyl Chloride, Technical | To be allotted as ARP in 2024-2025 |
|  | IS 695 : 2020 Acetic Acid — Specification ( Fourth Revision ) | Comments received on standard, see item **6.9** |
|  | IS 6971 : 1998 2 - Ethylhexan - 1 - ol - Specification (First Revision) | — |
|  | IS 6972 : 1973 Specification for Benzotrichloride, Technical | — |
|  | IS 7135 : 1987 Specification for Dimethyl Sulphate, Technical (First Revision) | — |
|  | IS 717 : 1998 Carbon disulphide, Technical - Specification (Second Revision) | Under revision, see item **5.4** |
|  | IS 7330 : 1988 Methods of Sampling and Test for Ion - Exchange Resins (First Revision) | The following inputs have been received from Dr M.J. Kapadia:  * IS 7330 was reaffirmed in 2014 and 2019. However, Amendment No. 1, issued in 1995, is required to be referred since it points out many critical corrections of IS 7330. * In case, there are no further suggestions for IS 7330 now, it is necessary to republish IS by incorporating all details of Amendment 1 into main body of IS 7330.   The Committee may **CONSIDER**. |
|  | IS 7559 : 1992 Salicylic Acid, Technical - Specification (First Revision) | — |
|  | IS 7618 : 1974 Specification for Hexachloroethane | — |
|  | IS 7619 : 1987 Specification for Pentaerythritol (First Revision) | To be allotted to Consultant |
|  | IS 869 : 2020 Specification for Ethylene Dichloride ( Third Revision ) | Under revision, see item **4.2** |
|  | IS 9851 : 2020 Specification for Iso-propyl Ether ( First Revision ) | — |
|  | IS 9908 : 2020 Specification for Formic Acid ( First Revision ) | Comments received on standard, see item **6.11** |
|  | IS 9986 : 1999 Benzaldehyde - Specification (First Revision) | To be allotted as ARP in 2024-2025 |
|  | IS 17342 : 2020 Determination of Ethyl Alcohol Concentration by Digital Densitometer | — |
|  | IS 17370 : 2020 p-Xylene - Specification | Standard has already revised in 2023. |
|  | IS 17412 : 2020 Trimethyl Phosphite - Technical Grade | — |
|  | IS 17442 : 2020 Vinyl Chloride Monomer - Specification | Under revision, see item **4.3** |

# 8.3 Standards due for review/ pre 2000 pending from previous meeting

# The following are the standards which were due for review/pre 2000 and pending since last meetings:

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No.** | **IS Number** | **IS Title** | **Present Status** |
|  | IS 10744 : 1983 | Specification for resorcinol | Inputs awaited from M/s Atul limited and M/s Prasol Chemicals Ltd. as they are one of the manufacturers. |
|  | IS 10745 : 1983 | Specification for acetophenone | Inputs awaited from Shri Dharmesh Siddhapuri, M/s Deepak Phenolics ltd. |
|  | IS 14310 : 1995 | Glyoxal (40 Percent solution) - Specification | Inputs awaited from M/s Clariant IGL Speciality Chemicals Pvt. Ltd. |
|  | IS 14375 : 1996 | Cyclohexanone - Specification | Inputs awaited from Shri Dharmesh Siddhapuri, M/s Deepak Phenolics ltd. |
|  | IS 5271 : 1984 | Specification for paraformaldehyde (First Revision) | The Committee in its 35th meeting requested BIS Sectt. to circulate an excel sheet comprising of standards and brief description about the standard (that is standards on which inputs is to sought from stakeholders) to ICC and CPMA, which is to be further circulated to industries by associations for reviewing and providing inputs.  If inputs are received, the standards may be reaffirmed and simultaneously revised. Further, BIS Sectt. to prepare draft revision by incorporating the changes proposed and issue into wide circulation for a period of 2 month time.  If no comments received, the Committee will deliberated in the next meeting, if the standards are to achieved, reaffirmed or to be withdrawn.  **Present Status:**    ICC and CPMA was requested for providing the details of manufacturers or inputs.  No inputs have been received from ICC. |
|  | IS 5297 : 1977 | Specification for perchloroethylene (Tetrachloroethylene), technical (First Revision) |
|  | IS 5592 : 1981 | Specification for monochloroacetic acid (First Revision) |
|  | IS 6412 : 1971 | Specification for benzoyl chloride, technical |
|  | IS 6749 : 1972 | Glossary of terms relating to alcohol (Ethyl) industry and trade |
|  | IS 7134 : 1973 | Specification for diphenyl |
|  | IS 8278 : 1976 | Specification for diphenylamine |
|  | IS 9250 : 1979 | Specification for p - Nitrophenol |
|  | IS 9834 : 2004 | Specification for iso - Butyl alcohol |
|  | IS 321 : 1964 | Specification for absolute alcohol (Revised) | Recommendation of the Panel based on the last meeting held:   1. IS 323 Rectified Spirit for industrial use – Specification   Panel requested Shri A.J.Wani, Godavari Biorefineries Limited to provide draft revision of IS 323 as they are the users of rectified spirit.   1. IS 321 Specification for absolute alcohol   During the meeting it was observed the meeting was not attended by the users including Lakshmi Organic Industries and no inputs were received from Jubilant Life Sciences Limited. Therefore, no useful inputs were received on the draft revision of IS 321 as received from Shri A.J. Wani. In the view of above, the Panel recommended that other user/manufactures industries should be contacted for valuable inputs for grade 1 (for pharmaceutical) and Special Grade (for special requirements such as defence) and requested Shri A.J. Wani and Shri Shanul, Godavari to provide contact details of users/manufacturers who may be contacted for inputs.  Further, Shri Atul Mawande, I.G. Petrochemicals Limited informed that they are user of Grade 2. In this regard the Panel requested I.G. Petrochemical to review the specification for Grade 2 and provide the inputs, if any.  The Committee may **NOTE** the decision of the Panel and consider recommending the users/ manufacturers of absolute alcohols who may be contacted for inputs. |
|  | IS 3321 : 1973 | Specification for formaldehyde solution (First Revision) | Manufacturers are to be traced. |
|  | IS 7911 : 2000 | Diethanolamine - Specification (First Revision) |
|  | IS 9850 : 2004 | Methyl iso-butyl ketone - Specification (First Revision) |
|  | IS 14710 : 1999 | Meta -Cresol - Specification |

# Further, it is informed that a provision of archiving of standards may also be considered by the Committee, if the Committee felt a need that the existing standard is not in use in the current scenario and thus revision is not required as of now. If inputs received the decision of achieving may be revoked and standards may be revised accordingly.

# The Committee may NOTE and CONSIDER.

# 8.4 R&D Projects

# 8.4.1 As informed to Committee in last meeting, about the new initiative of BIS, to identify subjects for R&D due to growing realization in the context of the increasing diversification, innovation, and complexities in the manufacturing sector and evolution of services, and also due to the fast pace of changes in the manufacturing and services landscapes, research & development projects have to be made an integral part of the standardization process.

**8.4.2** The following two research projects have been identified and approved by the Committee in its last meeting:

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl No.** | **Title of Project Proposed** | **Type – R&D for new standards/ R&D for revision of standards** | **Present Status** |
|  | Validation of alcoholometry data by hydrometer method and pyknometer method | R&D for revision of standards: IS 2302 and IS 3506 | A standard format for all the ToR prepared by each technical committee has been formulated and thus based on the standard format revised ToR will be prepared and circulate to the Committee once again.  The Committee may **NOTE**. |
|  | Validation of Interconversion data for ethanol-water mixtures | R&D for revision of standards: IS 5860 | The ToR finalized by the Committee was put up to Screening Committee and has been approved. Floating of R&D will be done shortly by our concerned department.  The Committee may **NOTE**. |

# 8.5 Standards to be allotted to BIS officers as ARP or Consultants

|  |  |  |
| --- | --- | --- |
| **Sl No.** | **IS Number** | **Title** |
| *Standards to be allotted to BIS Officers as ARP* | | |
|  | IS 7901 : 1975 | Specification for triethanolamine, technical |
|  | IS 12277 : 1988 | Specification for Polyethylene Glycol 400 (see item **8.2**) |
|  | IS 9986 : 1999 | Benzaldehyde - Specification (First Revision) (see item **8.2**) |
|  | IS 6775 : 1973 | Specification for Ethyl Chloride, Technical (see item **8.2**) |
|  | IS 13359 : 1992 | Polyethylene Glycol 200 – Specification (see item **8.2**) |
|  | IS 5341 : 1980 | Specification for Benzyl Chloride, Technical (First Revision) (see item **8.2**) |
| *Standards to be allotted to Consultant* | | |
|  | IS 501 : 1976 | Specification for oxalic acid technical and analytical reagent (Second Revision) |
|  | IS 7619 : 1987 | Specification for Pentaerythritol (First Revision) (see item **8.2**) |
|  | IS 9207 : 1979 | Specification or di - Tet - Butyl - Para – Cresol, technical |
|  | IS 5254 : 1980 | Specification for acetanllide technical (First Revision) |
|  | IS 6718 : 1972 | Specification for phenoxyacetic acid (see item **8.2**) |
|  | IS 7220 : 1974 | Specification for ethylenediaminetetra - Acetic acid pure and technical |
|  | IS 2979 : 1964 | Specification for fusel oil |
|  | IS 360 : 1964 | Specification for amyl alcohol |
|  | IS 540 : 1968 | Specification for refined cresylic acid (First Revision) |
|  | IS 7729 : 1975 | Specification for Sodium Monochloroacetate |
|  | IS 231 : 1957 | Specification for amyl acetate |
|  | IS 880 : 1956 | Specification for tartaric acid |

# The Committee may NOTE.

# 8.6 Documents under printing/published

# Based on the Committee decision in 34th meeting, the following documents were finalized and are sent for printing:

|  |  |
| --- | --- |
| Document No. | Title |
| *Under printing* | |
| PCD 09 (22252) | Iso Propyl Alcohol - Specification ( Second Revision ) Amendment – 1 |
| PCD 09 (22253) | Ethyl acetate - specification (Fourth Revision) Amendment - 2 |
| PCD 09 (22257) | Acetone - Specification ( Fifth Revision ) Amendment - 3 |
| PCD 09 (22254) | Beta picoline - Specification Amendment – 5 |
| PCD 09 (22255) | Gamma picoline - Specification Amendment - 1 |
| PCD 09 (21730) | Alcohol Denaturants - Specification (Third Revision of IS 4117) |
| PCD 09 (22405) | Vinyl Acetate Monomer - Specification (First Revision of IS 12345) |
| PCD 09 (22260) | Chloroform, Pure and Technical — Specification (Third Revision of IS 5296) |

# The Committee may NOTE.

# 8.7 Bifurcation of PCD 9 Sectional Committee

# During the 34th meeting, the Committee noted the proposal of dividing PCD 9 into two different Sectional Committee, which was table during the meeting. During the meeting, BIS Sectt. informed the Committee that currently 21 standards under the scope of PCD 9 are under mandatory certification and number of standards are yet to be brought under mandatory certification. Thus, to give equal priority to all subjects it was proposed to divide the sectional committee based on the functional groups. In the view of this, the Committee decided to hold a virtual meeting with the following members to have a discussion on the scope of Committees which may be constituted:

# a) Dr C.V. Rode, Chairman PCD 9

# b) Dr M.J. Kapadia, In Personal Capacity

# c) Smt Meenal Passi, H(PCD)

# d) Ms Aditi Choudhary, Member Secretary PCD 9.

# Present Status: Inputs are awaited.

# The Committee may NOTE.

**Item 9 RECENT INITIATIVES OF BIS**

**9.1 Presentation on the process reforms by BIS**

The recent process reforms to strengthen and streamline the standardization activity is attached as



The Committee may **NOTE.**

**9.2 Scientific journals and periodicals to be subscribed**

BIS will subscribes to scientific journals and magazines to facilitate standards work and maintains the same through its Central Library. The committee may SUGGEST scientific journals and periodicals which may be useful in standards development.

The committee may **CONSIDER** suggesting scientific journals and magazines to facilitate standards work.

**9.3 Rolling annual action plan for the year 2024-25**

Annual Action Plan is an important tool as it helps in planning for the whole year, the activities to be undertaken by the committee, inter alia it includes documents under development, meetings, new subjects to be taken up, etc. However, the action plan should also have ability to accommodate new requirements that may arise at any time. The BIS management therefore emphasizes on preparation of Rolling Annual Action Plan.

Keeping in view the current work in hand, BIS Sectt. will prepare the Annual Action Plan for financial year 2024-2025 and will circulate to Committee for kind consideration.

The Committee may **NOTE.**

**Item 10 DATE AND PLACE FOR THE NEXT MEETING**

**Item 11 ANY OTHER BUSINESS**

**Item 12 VOTE OF THANKS**