

ASC SPECIFICATION NO 294
COPPER SULPHATE.

1. **Description.** Copper Sulphate shall be in the form of blue, triclinic prisms or a blue crystalline powder, odourless or almost odourless, slowly efflorescent when it may have a whitish appearance.

2. **Examination.**

a. **Specified Limit.**

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| (i) <u>USP limit.</u> | 98.5% - 100.5%. |
| (ii) <u>BP limit.</u> | 98.5% - 101.0%. |

b. **Identification.** To 10 ml of a 2% w/v solution add 5 M NH₃ drop wise, a pale blue precipitate is produced which dissolves in excess of the reagent to give a deep blue solution.

c. **Solubility.** Freely soluble in water and glycerol at 20°C. Very slightly soluble in ethyl alcohol (96%).

d. **Loss on drying.** Dry it at 250°C to constant weight, it losses between 33% and 36.5% of its weight.

3. **Assay.** Dissolve 1 gm in 50 ml of water, add 3 gm of potassium Iodide (KI) and 5 ml of 6 M-CH₂COOH and titrate the liberated Iodine with 0.1 M Na₂S₂O₃ Vs, using starch mucilage as indicator, until only a faint blue colour remains. Add 2 gm of potassium thiocyanate and continue the titration until the blue colour disappears.

Calculation. Each ml of 0.1 M Na₂S₂O₃ Vs is equivalent to 24.97 gm of CuSO₄·5H₂O.

4. **Packing.** Copper Sulphate should be packed in hermetically sealed airtight tin container. Each Container shall contain 15-25 kg net wt of Copper Sulphate.

5. **Marking.** The container shall be stencilled on one side as follows:

- Copper Sulphate..
- Net weight of contents.
- Gross weight.
- Name of Manufacturer/Supplier.
- Manufacturing date.

6. **Inspection.** Inspection of supplies tendered for acceptance shall be carried out by an officer acting on behalf of DST. The Inspecting Officer shall draw representative sample from this consignment and submit them to AFFDL, Dhaka Cantt for analysis and report.

The analytical report of AFFDL shall be forwarded to DST whose decision regarding the consignment shall be final and the delivery shall be same/as per the sample approved by AFFDL in all respect.

B-1


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