



SALES SPECIFICATION

Description: Tartaric Acid

| Test Description | Specification | Unit of Measure |
|--------------------|--|-----------------|
| VAPOR DENSITY | 5.18 (vs air) | |
| GRADE | puriss | |
| ASSAY. | 99.7-100.5% | % |
| FORM | powder | |
| OPTICAL ACTIVITY | [α]20/D +12.0 to +12.8°, c = 20% in H ₂ O | °C |
| AUTOIGNITION TEMP. | 797 °F | °F |
| QUALITY | meets analytical specification of Ph. Eur., BP, NF, FCC, E334 | |
| TOTAL IMPURITIES | organic volatile impurities, complies (GC) residual solvents, complies ≤0.001% heavy metals (as Pb) | |
| IGN. RESIDUE | ≤0.05% (as SO ₄) | % |
| LOSS | ≤0.2% loss on drying, 105 °C | % |
| MP | 168-170 °C 170-172 °C(lit.) | °C |
| ANION TRACES | chloride (Cl ⁻): ≤100 mg/kg oxalate (C ₂ O ₄ ²⁻): in accordance oxalate (as oxalic acid): ≤100 mg/kg | mg/kg |
| CATION TRACES | sulfate (SO ₄ ²⁻): ≤100 mg/kg As: ≤2 mg/kg Ca: ≤200 mg/kg Cu: ≤10 mg/kg Hg: ≤1 mg/kg Pb: ≤2 mg/kg Zn: ≤10 mg/kg | mg/kg |

Comments: Physical properties are not monitored constantly.
Issue of Revision Date: 01-08 -2009 Spec Version Number: 1