



Certificate of analysis

Reference #: 010/299

Manufacturing date 3/27/2019

Analysis date 3/27/2019

| | | | | | |
|--------------|---|-------------------|--|-------------------|-----------------------------|
| Product name | Tantalum(V) chloride, anhydrous (99,99 % - Ta) | | | | |
| Product code | TA1019 | CAS# | 7721-01-9 | Purity | 99.0% (by titration) |
| Lot/batch # | 010/299 | Net Weight/volume | 54000g | Country of origin | Russia |
| Packaging | 54 glass bottles | Storage | Moisture sensitive. Shelf life 1 year | | |

| Analytical results | |
|---------------------------|--|
| Appearance | White powder |
| Titration by AgNO3 | % Cl = 49.0 % |
| Purity | 99.0% |
| ICP | 99.99+% (total concentration of impurities < 100 ppm) |
| ICP, ppm | Co=0.03 Nb=3 Al=0.9 W=0.2 Cr=0.3 Ca=10.0 Fe=3 Mo=0.06 Ni=0.06 Si=5 Sn=0.06 Ti=0.4 Mn=0.06 |