

Zipp QC Report

Summary

Quality Control Analysis Report Based on the provided check results, the following issues and anomalies were found:

- **Completeness Check:** 2 missing fields were detected, indicating that the batch production record is incomplete.
- **Anomaly Detection:** No anomalies were found in the data.
- **Unit Conversion Check:** No unit issues were detected, ensuring consistency in unit measurements.

Regarding KPI trends, the available data (only 5 historical records) shows: * The mean pH value is 92.0, with a standard deviation of 3.74. * The minimum and maximum pH values are 86.0 and 95.0, respectively. * No outliers were detected in the pH values. However, it is essential to note that the KPI statistics are based on limited data (only 5 historical records), which may not accurately represent the typical trends. The warning `[KPI WARNING]: Warning: Only 5 historical records found (expected 30)` suggests that the statistics may not be reliable. **Recommendation:** Given the incomplete batch production record (2 missing fields) and the limited historical data for KPI statistics, it is recommended that the batch be **reviewed** before acceptance or rejection. The review should focus on completing the missing fields and verifying the accuracy of the available data. Additionally, it is crucial to collect more historical data to establish reliable KPI statistics and trends.

QC Checks


Check	Result
completeness_check	2 missing fields
anomaly_check	No anomalies
kpi_summary_check	{'pH': {'mean': np.float64(92.0), 'std': np.float64(3.74), 'min': np.float64(86.0), 'max': np.float64(95.0), 'outliers': 0}}
unit_conversion_check	No unit issues

Note: The completeness check now flags as missing: NaN/nulls, empty strings, and the string 'MISSING' (case-insensitive).

Batch Data

Temperature (°C)	Pressure (kPa)	pH	Volume (L)
22,8	149	6,8	120
22,9	145	7,2	125
22,5	143	6,8	125
22,5	142	7,2	125
22,2	141	6,8	125

Temperature (°C)	Pressure (kPa)	pH	Volume (L)
22,5	152	7,2	125
22,8	152	7,2	125
23,0	151	6,8	125
23,1	152	7,2	125
23,4	152	9,3	100
22,8	152	91	125
23,7	125	95	125
23,7	125	93	125
23,7	125	95	125
23,7	125	MISSING	MISSING

 **4.csv**
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