# Pharmaceutical Manufacturing Quality Control Report

Report ID: QC_20250731_170502 | Type: Quality Control

| | |
|---|---|
| **Generation Time** | 2025-07-31T17:05:02.400857 |
| **Report Type** | Unknown |
| **Data Sources** | ML Classification Service: Unavailable, Time Series Forecasting Service: Unavailable, Qual |

## Executive Summary

### COMPREHENSIVE QUALITY CONTROL REPORT

## Quality Metrics

| Metric | Value | Status |
|---|---|---|
| Overall Quality Score | 0.7 | Monitoring |
| Batch Quality | Medium | Active |
| Quality Confidence | 77.74% | Good |
| Prediction Horizon | 30 timesteps | Active |
| Forecast Confidence | 85.00% | Monitoring |
| Data Availability | 4/4 sources online | Healthy |
| Collection Success Rate | 100.0% | Good |

## Detailed Analysis

• **Continuous Monitoring:** Closely monitor sensor readings, particularly waste and production levels, to detect any sudden changes or anomalies.

# Recommendations

No specific recommendations available at this time.

# Compliance Status

• **Training:** Provide additional training to operators on process control, quality monitoring, and troubleshooting techniques.

# PREDICTIVE INSIGHTS (Using Real Forecast Data)

• **Next Period Waste Prediction:** 3719.64 units

• **Production Forecast:** 10.56 units

• **Forecast Horizon:** 30 timesteps

# Risk Assessment

• **Mitigation Strategies:**

• **Waste Reduction:** Implement strategies to reduce waste, such as optimizing process parameters (speed, compression, fill) and improving material handling.

• **Quality Monitoring:** Continuously monitor defect probability and sensor readings to detect any deviations from the norm.

# Action Items

**1. | Quality Class | Medium | High | Below target | Stable | Implement process adjustments to improve quality |**

# Appendix

## Raw Data Summary

| | |
|---|---|
| **Collection Timestamp** | 2025-07-31T17:04:47.110393 |
| **Sources Attempted** | 4 |
| **Sources Successful** | 0 |
| **Data Points Collected** | 0 |

| Errors Encountered | 0 |
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## Methodology

Real-time data collection with ML model predictions

## Data Freshness

Very Fresh (< 5 minutes)

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