| **Node Name** | **Type of Distribution** | **Possible Values / Range** | **Direct Child Nodes** |
| --- | --- | --- | --- |
| API and Excipient | Categorical | API\_A, API\_B × Excipient\_X, Excipient\_Y | Dispensing Accuracy, Granule Size, Tablet Hardness |
| Dispensing Accuracy | Categorical | Low, Medium, High | Blending Uniformity, Granule Size |
| Milling Settings | Categorical | Slow, Medium, Fast | Granule Size, Blending Uniformity |
| Blending Time and Speed | Categorical | Short-Slow, Medium-Medium, Long-Fast | Blend Uniformity, Granule Size |
| Granulation Parameters | Categorical | Low, Medium, High | Granule Size, Drying Efficiency |
| Drying Parameters | Categorical | Under, Optimal, Over | Moisture Content, Compression Settings |
| Compression Settings | Categorical | Low Force, Optimal Force, High Force | Tablet Hardness, Dissolution Rate |
| Coating Parameters | Categorical | Thin, Optimal, Thick | Dissolution Rate, Stability |
| Packaging Humidity | Categorical | Low, Normal, High | Stability |

| **Node Name** | **Type of Distribution** | **Possible Values / Range** | **Direct Child Nodes** | **Parent Nodes** |
| --- | --- | --- | --- | --- |
| Granule Size | Categorical | Fine, Medium, Coarse | Blend Uniformity | Granulation Parameters, Milling Settings |
| Blend Uniformity | Categorical | Uniform, Slightly Non-uniform, Non-uniform | Content Uniformity | Granule Size, Blending Time and Speed |
| Moisture Content (Intermediate) | Categorical | Low, Optimal, High | Hardness, Dissolution | Drying Parameters, Granulation Parameters |
| Tablet Weight Variation | Categorical | Low, Moderate, High | Assay | Blend Uniformity, Compression Settings |

| **Node Name** | **Type of Distribution** | **Possible Values / Range** | **Direct Child Nodes** | **Parent Nodes** |
| --- | --- | --- | --- | --- |
| Assay | Categorical | Below Spec, Within Spec, Above Spec | — | Tablet Weight Variation |
| Content Uniformity | Categorical | Uniform, Marginal, Non-uniform | — | Blend Uniformity |
| Hardness | Categorical | Soft, Optimal, Hard | — | Moisture Content (Intermediate), Compression Settings |
| Dissolution | Categorical | Fast, Optimal, Slow | — | Moisture Content (Intermediate), Coating Parameters |