

Inspection Attributes in Packaging Validation of Non-Sterile Drug Products

Table 1: Example of Bottle packaging defects

Defect class	Example AQL	Example Defect
Critical	0.01% None or reject with 1 ^(a)	<ul style="list-style-type: none"> • Incorrect or missing packaging material • Incorrect or missing bottle label • Objectionable foreign matter or incorrect product • Contamination (foreign material) • Wrong product insert/outsert or wrong revision • Incorrect/absence inner seal material • Non-functioning seal (misaligned, wrong dimensions) • Unengaged closure (squeeze and turn) <p>Others (one site example):</p> <ul style="list-style-type: none"> • Perforated bottle • Broken desiccant inside bottle • Bottle with flashing (impact personal injury) • Cotton/rayon/polyester outside the internal seal affecting sealing
Major	1.0% ^(b) (0.4- 1.5%)	<ul style="list-style-type: none"> • Short count (separate criteria may be developed, e.g. controlled substances) • Empty bottle • Obvious low or high fill (liquids)(separate criteria may be developed; e.g. controlled substances) • Bottle with leaks (liquids only) (lower AQL%)^(d) • Damaged or dirty container (package integrity not compromised or not in contact with product) • Damaged or dirty inserts/outserts (higher AQL%)^(d) • Missing or incorrect desiccant (lower AQL%) • Particulate matter in liquid product (lower AQL%) • Damaged product or closure (e.g. crimped or torn closure s) • Cotton /rayon/polyester present- none or double • Cotton/rayon/polyester - contaminated • Cotton/rayon/polyester- protruding from under seal^(c) • Closure removal torque- out of specifications (lower AQL%) • Incomplete inner seal • Detached closure/foam liner (squeeze and turn) • Missing batch number or expiration date • Outsert or label not adhering completely • Wrinkle in label causing illegible print (lower AQL%)
Minor	2.5% ^(b) (1.5% - 4.0%)	<ul style="list-style-type: none"> • Loose bundles • Improper amount of cotton/rayon/polyester (if amount is specified) • Scratched closure • Color variation in closure

Footnotes:

(a) Setting AQLs of 0.01% may require larger sample sizes in order to claim that level of quality. Depending on batch and sample size, no critical defects ('None' or 'Reject with 1') may be the limit. Alternate

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Defect class (a)	Example AQL	Defect
Major B	1.5%	<ul style="list-style-type: none"> • Particulate matter on non-product contact surfaces^(c) • Incorrect quantity of displays in shipper (wrong count) • Incorrect shipper component • Incorrect pallet pattern (could cause over or under shipment quantities)
Minor	4.0% (2.5% -4.0%)	<ul style="list-style-type: none"> • Loose/flagging shipper

(a) In one example, there is no formal classification for shippers, just inspection criteria such as number of allowed defects (e.g. 3 defects allowed out of sample size of 50).

(b) See footnote b – Table 1

(c) One site classifies this defect as minor

(d) One site classifies this as minor since case labels have no compliance ramifications but potential charge back from customers and are printed by a validated case label system⁽¹¹⁾
Also, since consumers (end users) are not buying case quantities, the definition in Appendix I may not apply.

Table 5: Example of Bar code reader or scanner

Defect class	Example AQL	Defect
Critical	None ^(a) (0.01 %)	<ul style="list-style-type: none"> • Incorrect lot number, expiration date, or NDC (National Drug Code or GTIN) number. • NDC code or other primary label barcodes that are not machine readable.
Major	0.65% (0.25- 1.5%)	<ul style="list-style-type: none"> • Primary and secondary labels have to meet ANSI barcode quality of Grade C or better⁹⁾ • Shipping case label barcodes meet ANSI barcode quality Grade C or better.
Minor	2.5% (2.5- 4.0%)	<ul style="list-style-type: none"> • No readings after repeated attempts

(a) See footnote a – Table 1

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Impact of Defect**	Critical	Major	Minor
	yield issues related to components.	components.	

* Alternate- one sites description in these categories ⁽¹¹⁾.

**When multiple impacts (e.g. Loss to Company, Effect on Conformance to Regulations), it is recommended to use the most conservative classification of defect