

### 3.2.S.4.1. SPECIFICATION

The specification for BNT162b2 drug substance at release and during stability studies is provided in Table 3.2.S.4.1-1. (b) (4)

The acceptance criteria provided are based on the available data.

**Table 3.2.S.4.1-1 BNT162b2 Drug Substance Specification**

Quality Attribute	Analytical Procedure	Acceptance Criteria	
<b>Composition and Strength</b>			
Clarity	Appearance (Clarity) (Ph. Eur. 2.2.1)	(b) (4)	
Coloration	Appearance (Coloration) (Ph. Eur. 2.2.2)		
pH	(b) (4) (Ph. Eur. 2.2.3, USP <791>)		
Content (RNA Concentration)	UV Spectroscopy		
<b>Identity</b>			
Identity of Encoded RNA Sequence	RT-PCR <sup>a</sup>		
<b>Purity</b>			
RNA Integrity	Capillary Gel Electrophoresis		
5'- Cap	RP-HPLC		
Poly(A) Tail	ddPCR		
<b>Process Related Impurities</b>			
Residual DNA Template	qPCR <sup>a</sup>		
<b>Product Related Impurities</b>			
dsRNA	Immunoblot <sup>a</sup>		
<b>Safety</b>			
Bacterial Endotoxin	Endotoxin (LAL) (Ph. Eur 2.6.14, USP <85>, JP 4.01)		
Bioburden	Bioburden (Ph. Eur. 2.6.12, USP <61>, JP 4.05)		

a. Assay not performed on stability.

Abbreviations: NTU = Nephelometric Turbidity Units; B = brown; RT-PCR = reverse transcription polymerase chain reaction; ddPCR = droplet digital PCR; qPCR = quantitative PCR; dsRNA = double stranded RNA; LAL = Limulus ameocyte lysate; EU = endotoxin unit; CFU = colony forming unit