

## WENZHOU YINGYUE NEW MATERIALS CO., LTD.

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### CERTIFICATE OF ANALYSIS (COA)

Document No.: COA-HBr-20251202

#### 1. Product Information

Item	Specification
Product Name	Anhydrous Hydrogen Bromide (HBr) Gas
Chemical Formula	HBr
CAS No.	10035-10-6
UN No.	UN 1048
Hazard Class	Class 2.3 (Toxic Gas), Class 8 (Corrosive Substance)
Grade	3N Chemical Grade

#### 2. Batch & Packaging Details

Item	Details
Batch Number	20251202
Production Date	December 28, 2025
Expiry Date	June 27, 2027 (Shelf Life: 18 Months)
Cylinder Number	23E049042

Net Quantity	50 kg per cylinder
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### 3. Test Specifications & Results

Unit: volume fraction (ppm / 10<sup>-6</sup>), unless otherwise specified

Analysis Items	Standard Requirement	Test Result
HBr Purity (volume fraction) / %	≥ 99.9	99.98
Moisture (H <sub>2</sub> O)	< 10	4.2
Hydrogen Chloride (HCl)	< 20	18
Hydrogen (H <sub>2</sub> )	< 100	82.0
Nitrogen (N <sub>2</sub> )	< 50	3.0
Methane (CH <sub>4</sub> )	≤ 1	ND (Not Detected)
Carbon Monoxide (CO)	< 2	ND (Not Detected)
Carbon Dioxide (CO <sub>2</sub> )	≤ 5	ND (Not Detected)
Oxygen / Argon (O <sub>2</sub> /Ar)	≤ 5	ND (Not Detected)

Note: "ND" means the impurity content is below the detection limit of the testing instrument.


### 4. Conclusion

**Final Decision: QUALIFIED / PASSED**

This batch complies with the 3N-grade international industrial standard for anhydrous hydrogen bromide gas.

### Quality Control Department

Wenzhou Yingyue New Materials Co., Ltd.

Inspector	Reviewer	Authorized Signatory
Han Chunng	Xie Xiaoli	

Issued Date: December 28, 2025