



**TITLE/ IDENTIFIER /NAME** REFERENCE MATERIAL – ARM BA001

**PRODUCT: BENZOIC ACID PELLETS**

**MASS: APPROXIMATELY 1g-----BATCH REFERENCE : 05201701 REV 02**

### *Certificate of Analysis*

1. **APPLIED USAGE**  
This product is to be used for the calibration of calorimeters, typically utilized in the coal industry for the determination of the calorific value of coal.
2. **TRACEABILITY**  
Certification of the Coal Concepts benzoic acid pellets are traceable to NIST SRM number 39j.  
*ISO Guide 35 : Reference Materials – General and statistical principles for certification*, was used as the guideline for the certification process.
3. **MATERIAL SAFETY DATA SHEET**  
Contact with skin may result in mild irritation. Wash with water for about 10 minutes. If powder comes into contact with the eye, use an eye wash bottle to flush any material and seek medical attention. If large amounts are swallowed, seek immediate medical attention. Contact Coal Concepts if more information is required.
4. **INSTRUCTIONS FOR USAGE**  
Ensure the product is received in a sealed container. The tab should not be broken or damaged upon receipt. If not in use, store in a clean, dry environment where the relative humidity does not exceed 90%. Use a pair of clean surgical gloves or clean tweezers when handling the pellets. If direct contact is made by hand, ensure adequate cleanliness to prevent contamination.
5. **ASSIGNED VALUE**

26.450 MJ/Kg ± 0.002 MJ/Kg

6317.6kcal/Kg ± 0.5kcal/Kg

26 450 J/g ± 2 J/g

11 371 Btu/lb ± 1 Btu/lb

6. **Date Manufactured** : 17/05/2017
7. **Quantity** : 100 pills per bottle
8. **PERIOD OF VALIDITY**  
Benzoic acid has no known expiry, however discard 2 years after opening, as a precautionary measure
9. **MEASUREMENT UNCERTAINTY**  
Measurement uncertainty was calculated taking the repeatability, reproducibility, uncertainty of NIST certified value, weighing uncertainty and purity of the benzoic acid. Eurachem/Citac Guide CG 4, third edition was used as a guideline
10. **LIMIT OF LIABILITY**  
The limit of liability is restricted to the value of 1 bottle of pelletized benzoic acid

**REFERENCE MATERIAL CO-ORDINATOR : R Baboolal**

**THINKING QUALITY, QUALITY THINKING**

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